

# TITLE 327

## WATER POLLUTION CONTROL BOARD

*NOTE: Under P.L.1-1996, SECTION 99, IC 13-1, IC 13-3, IC 13-5, IC 13-6, IC 13-7, IC 13-9, IC 13-9.5, and IC 13-10 were repealed. The repeal of these cites affects statutory authority and statutes affected lines of all sections not amended in the 2004 Edition of the Indiana Administrative Code.*

- Art. 1. GENERAL PROVISIONS
- Art. 2. WATER QUALITY STANDARDS
- Art. 3. WASTEWATER TREATMENT FACILITIES; ISSUANCE OF PERMITS; CONSTRUCTION AND PERMIT REQUIREMENTS
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- Art. 10. (RESERVED)
- Art. 11. STATE ENVIRONMENTAL POLICY
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- Art. 12.1. PUBLIC RECORDS; CONFIDENTIAL INFORMATION; CONFIDENTIALITY AGREEMENTS
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### ARTICLE 1. GENERAL PROVISIONS

Rule 1. Provisions Applicable Throughout Title 327

#### Rule 1. Provisions Applicable Throughout Title 327

- 327 IAC 1-1-1     References to Federal Act
- 327 IAC 1-1-2     References to the Code of Federal Regulations
- 327 IAC 1-1-3     Severability
- 327 IAC 1-1-4     Savings clause

#### 327 IAC 1-1-1   References to Federal Act

**Authority:** IC 4-22-9-5; IC 13-1-3; IC 13-7-7  
**Affected:** IC 4-22-9-5; IC 13-1-3; IC 13-7-1-10; IC 13-7-7

Sec. 1. Unless otherwise indicated, references in these rules (327 IAC) to the Federal Water Pollution Control

Act or to the Clean Water Act (CWA) shall mean the Federal Water Pollution Control Act as defined in IC 13-7-1-10. (*Water Pollution Control Board; 327 IAC 1-1-1; filed Sep 24, 1987, 3:00 pm: 11 IR 579; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### 327 IAC 1-1-2   References to the Code of Federal Regulations

**Authority:** IC 13-1-3; IC 13-7-7  
**Affected:** IC 13-1-3; IC 13-7-7

Sec. 2. Unless otherwise indicated, any reference to a provision of the Code of Federal Regulations (CFR) shall mean the July 1, 1986 revision. (*Water Pollution Control Board; 327 IAC 1-1-2; filed Sep 24, 1987, 3:00 pm: 11 IR 579; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### 327 IAC 1-1-3   Severability

**Authority:** IC 13-1-3; IC 13-7-7  
**Affected:** IC 13-1-3; IC 13-7-7

Sec. 3. If any provision of these rules (327 IAC) or the application thereof to any person or circumstance is held invalid, the invalidity shall not affect any other provisions or applications of these rules (327 IAC) which can be given effect without the invalid provision or application. (*Water Pollution Control Board; 327 IAC 1-1-3; filed Sep 24, 1987, 3:00 pm: 11 IR 579; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### 327 IAC 1-1-4   Savings clause

**Authority:** IC 13-1-3; IC 13-7-7  
**Affected:** IC 13-1-3; IC 13-7-7

Sec. 4. The repeal and reenactment in this Title (327 IAC) of any rule previously the responsibility of the water pollution control board shall not have the effect to release or extinguish any penalty or forfeiture incurred under the same, and such previous rule shall be treated as still remaining on in force for the purpose of sustaining any proper action, or prosecution for the enforcement of such penalty, forfeiture or liability. (*Water Pollution Control Board; 327 IAC 1-1-4; filed Sep 24, 1987, 3:00 pm: 11 IR 579; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### ARTICLE 2. WATER QUALITY STANDARDS

Rule 1. Water Quality Standards Applicable to All State Waters Except Waters of the State Within the Great Lakes System

- Rule 1.5. Water Quality Standards Applicable to All State Waters Within the Great Lakes System
- Rule 2. Cyanides and Cyanogen Compounds; Drainage into Sewer Systems or Watercourses Prohibited; Exception
- Rule 3. Coal Mines; Restrictions on Acid Drainage and Refuse Deposits into State Waters
- Rule 4. Waste Treatment Control Facilities; Discharge into State Waters; Monthly Reports
- Rule 5. Phosphates; Permits for Use by Manufacturers and Processors; Detergents
- Rule 6. Spills of Oil and Other Objectionable Substances; Reporting, Containment and Cleanup (*Repealed*)
- Rule 6.1. Spills; Reporting, Containment, and Response
- Rule 7. Lake Michigan and Contiguous Harbor Areas (*Repealed*)
- Rule 8. Grand Calumet River and Indiana Harbor Ship Canal (*Repealed*)
- Rule 9. Natural Spawning, Rearing or Imprinting Areas; Migration Routes for Salmonid Fishes (*Repealed*)
- Rule 10. Secondary Containment of Aboveground Storage Tanks Containing Hazardous Materials
- Rule 11. Ground Water Quality Standards

**Rule 1. Water Quality Standards Applicable to All State Waters Except Waters of the State Within the Great Lakes System**

- 327 IAC 2-1-1 Applicability of rule
- 327 IAC 2-1-1.5 Water quality goals
- 327 IAC 2-1-2 Maintenance of surface water quality standards
- 327 IAC 2-1-3 Surface water use designations; multiple uses
- 327 IAC 2-1-4 Mixing zone guidelines
- 327 IAC 2-1-5 Exception to quality standards applicability
- 327 IAC 2-1-6 Minimum surface water quality standards
- 327 IAC 2-1-7 Interim ground water quality standards (*Repealed*)
- 327 IAC 2-1-8 Methods of analysis
- 327 IAC 2-1-8.1 Calculation of criteria for toxic substances; general
- 327 IAC 2-1-8.2 Determination of acute aquatic criteria (AAC)
- 327 IAC 2-1-8.3 Determination of chronic aquatic criterion (CAC)
- 327 IAC 2-1-8.4 Determination of the terrestrial life cycle safe concentration (TLSC)
- 327 IAC 2-1-8.5 Determination of the human life cycle safe concentration (HLSC)
- 327 IAC 2-1-8.6 Determination of concentration providing an acceptable degree of protection to public health for cancer
- 327 IAC 2-1-8.7 Determination of bioconcentration factor
- 327 IAC 2-1-8.8 Variances from water quality standards; conditions
- 327 IAC 2-1-9 Definitions
- 327 IAC 2-1-10 Reclassification proposals for limited or exceptional use designation
- 327 IAC 2-1-11 Limited and exceptional use; designated waters

327 IAC 2-1-12 Incorporation by reference

**327 IAC 2-1-1 Applicability of rule**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-4

Sec. 1. The water quality standards established by this rule shall apply to all waters of the state except waters of the state within the Great Lakes system regulated under 327 IAC 2-1-5. (*Water Pollution Control Board; 327 IAC 2-1-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 579; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1018; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1347*)

**327 IAC 2-1-1.5 Water quality goals**

**Authority:** IC 13-1-3-7; IC 13-7-1-1; IC 13-7-7-5

**Affected:** IC 13-7-4-1

Sec. 1.5. The goal of the state is to restore and maintain the chemical, physical, and biological integrity of the waters of the state. In furtherance of this primary goal:

- (1) it is the public policy of the state that the discharge of toxic substances in toxic amounts be prohibited; and
- (2) it is the public policy of the state that the discharge of persistent and bioconcentrating toxic substances be reduced or eliminated.

(*Water Pollution Control Board; 327 IAC 2-1-1.5; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1018*)

**327 IAC 2-1-2 Maintenance of surface water quality standards**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-1; IC 13-18-4; IC 13-30-2-1

Sec. 2. The following policies of nondegradation are applicable to all surface waters of the state:

- (1) For all waters of the state, existing beneficial uses shall be maintained and protected. No degradation of water quality shall be permitted which would interfere with or become injurious to existing and potential uses.
- (2) All waters whose existing quality exceeds the standards established herein as of February 17, 1977, shall be maintained in their present high quality unless and until it is affirmatively demonstrated to the commissioner that limited degradation of such waters is justifiable on the basis of necessary economic or social factors and will not interfere with or become injurious to any beneficial uses made of, or presently possible, in such waters. In making a final determination under this subdivision, the commissioner shall give appropriate consideration to public participation and intergovernmental coordination.
- (3) The following waters of high quality, as defined in subdivision (2), are designated by the board to be an

outstanding state resource and shall be maintained in their present high quality without degradation:

(A) The Blue River in Washington, Crawford, and Harrison Counties, from river mile 57.0 to river mile 11.5.

(B) The North Fork of Wildcat Creek in Carroll and Tippecanoe Counties, from river mile 43.11 to river mile 4.82.

(C) The South Fork of Wildcat Creek in Tippecanoe County, from river mile 10.21 to river mile 0.00.

(4) Any determination made by the commissioner in accordance with Section 316 of the Clean Water Act concerning alternative thermal effluent limitations will be considered to be consistent with the policies enunciated in this section.

*(Water Pollution Control Board; 327 IAC 2-1-2; filed Sep 24, 1987, 3:00 p.m.: 11 IR 579; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1018; errata filed Jul 6, 1990, 5:00 p.m.: 13 IR 2003; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1346)*

### **327 IAC 2-1-3 Surface water use designations; multiple uses**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-4

Sec. 3. (a) The following water uses are designated by the water pollution control board:

(1) Surface waters of the state are designated for full-body contact recreation as provided in section 6(d) of this rule.

(2) All waters, except as described in subdivision (5), will be capable of supporting a well-balanced, warm water aquatic community and, where natural temperatures will permit, will be capable of supporting put-and-take trout fishing. All waters capable of supporting the natural reproduction of trout as of February 17, 1977, shall be so maintained.

(3) All waters which are used for public or industrial water supply must meet the standards for those uses at the points where the water is withdrawn. This use designation and its corresponding water quality standards are not to be construed as imposing a user restriction on those exercising or desiring to exercise the use.

(4) All waters which are used for agricultural purposes must, as a minimum, meet the standards established in section 6(a) of this rule.

(5) All waters in which naturally poor physical characteristics (including lack of sufficient flow), naturally poor chemical quality, or irreversible man-induced conditions, which came into existence prior to January 1, 1983, and having been established by use

attainability analysis, public comment period, and hearing may qualify to be classified for limited use and must be evaluated for restoration and upgrading at each triennial review of this rule. Specific waters of the state designated for limited use are listed in section 11(a) of this rule.

(6) All waters which provide unusual aquatic habitat, which are an integral feature of an area of exceptional natural beauty or character, or which support unique assemblages of aquatic organisms may be classified for exceptional use. Specific waters of the state designated for exceptional use are listed in section 11(b) of this rule.

(b) Where multiple uses have been designated for a body of water, the most protective of all simultaneously applicable standards will apply. *(Water Pollution Control Board; 327 IAC 2-1-3; filed Sep 24, 1987, 3:00 p.m.: 11 IR 580; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1019; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1348)*

### **327 IAC 2-1-4 Mixing zone guidelines**

**Authority:** IC 13-1-3-7; IC 13-7-7-5

**Affected:** IC 13-1-3-7; IC 13-7-7-5

Sec. 4. (a) All surface water quality standards in this rule, except those provided in section 6(a)(1) of this rule, are to be applied at a point outside of the mixing zone to allow for a reasonable admixture of waste effluents with the receiving waters.

(b) Due to varying physical, chemical, and biological conditions, no universal mixing zone may be prescribed. The commissioner shall determine the mixing zone upon application by the discharger. The applicability of the guideline set forth in subsection (c) will be on a case-by-case basis and any application to the commissioner shall contain the following information:

(1) The dilution ratio.

(2) The physical, chemical, and biological characteristics of the receiving body of water.

(3) The physical, chemical, and biological characteristics of the waste effluent.

(4) The present and anticipated uses of the receiving body of water.

(5) The measured or anticipated effect of the discharge on the quality of the receiving body of water.

(6) The existence of and impact upon any spawning or nursery areas of any indigenous aquatic species.

(7) Any obstruction of migratory routes of any indigenous aquatic species.

(8) The synergistic effects of overlapping mixing zones or the aggregate effects of adjacent mixing zones.

(c) The mixing zone should be limited to no more than one-fourth (1/4) (twenty-five percent (25%)) of the cross-

sectional area and/or volume of flow of the stream, leaving at least three-fourths (3/4) (seventy-five percent (75%)) free as a zone of passage for aquatic biota nor should it extend over one-half (1/2) (fifty percent (50%)) of the width of the stream.

(d) Based on consideration of aquatic life or human health effects, the commissioner may deny a mixing zone for a discharge or certain substances in a discharge.

(e) Notwithstanding other subsections of this section, no mixing zone shall be allowed for discharges to lakes except for those consisting entirely of noncontact cooling water which meet the requirements set forth in Section 316(a) of the Federal Water Pollution Control Act of 1972. (*Water Pollution Control Board; 327 IAC 2-1-4; filed Sep 24, 1987, 3:00 p.m.: 11 IR 580; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1020*)

### **327 IAC 2-1-5 Exception to quality standards applicability**

**Authority:** IC 13-1-3-7; IC 13-7-7-5

**Affected:** IC 13-1-3-7; IC 13-7-7-5

Sec. 5. All surface water quality standards in section 6 of this rule, except those provided in section 6(a)(1) of this rule will cease to be applicable when the stream flows are less than the average minimum seven (7) consecutive day low flow which occurs once in ten (10) years. This determination will be made using Low-Flow Characteristics of Indiana Streams, 1983, United States Department of the Interior, Geological Survey, or any additional information compiled on a comparable basis. (*Water Pollution Control Board; 327 IAC 2-1-5; filed Sep 24, 1987, 3:00 p.m.: 11 IR 581; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1020*)

### **327 IAC 2-1-6 Minimum surface water quality standards**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-4; IC 13-30-2-1

Sec. 6. (a) The following are minimum water quality conditions:

(1) All waters at all times and at all places, including the mixing zone, shall meet the minimum conditions of being free from substances, materials, floating debris, oil, or scum attributable to municipal, industrial, agricultural, and other land use practices, or other discharges:

(A) that will settle to form putrescent or otherwise objectionable deposits;

(B) that are in amounts sufficient to be unsightly or deleterious;

(C) that produce color, visible oil sheen, odor, or other conditions in such degree as to create a nuisance;

(D) which are in amounts sufficient to be acutely toxic to, or to otherwise severely injure or kill aquatic life, other animals, plants, or humans:

(i) to assure protection of aquatic life, concentrations of toxic substances shall not exceed the final acute value (FAV = 2 (AAC)) in the undiluted discharge or the acute aquatic criterion (AAC) outside the zone of initial dilution or, if applicable, the zone of discharge-induced mixing:

(AA) for certain substances, the AAC are established and set forth in Table 1 (which table incorporates Table 2); and

(BB) for substances for which an AAC is not specified in Table 1, or if a different AAC can be scientifically justified based on new toxicological data or site-specific conditions concerning water quality characteristics or species present, an AAC can be calculated by the commissioner using the procedures in section 8.2 of this rule; and

(ii) this clause shall not apply to the chemical control of plants and animals when that control is performed in compliance with approval conditions specified by the Indiana department of natural resources as provided by IC 14-2-1 [*IC 14-2 was repealed by P.L.1-1995, SECTION 91, effective July 1, 1995.*]; and

(E) which are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such degree as to create a nuisance, be unsightly, or otherwise impair the designated uses.

(2) At all times, all waters outside of mixing zones shall be free of substances in concentrations which on the basis of available scientific data are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants. To assure protection against the adverse effects identified in this subdivision, the following requirements are established:

(A) A toxic substance or pollutant shall not be present in such waters in concentrations which exceed the most stringent of the following continuous criterion concentrations (CCCs):

(i) A chronic aquatic criterion (CAC) to protect aquatic life from chronic toxic effects.

(ii) A terrestrial life cycle safe concentration (TLSC) to protect terrestrial organisms from toxic effects which may result from the consumption of aquatic organisms and/or water from the waterbody.

(iii) A human life cycle safe concentration (HLSC) to protect human health from toxic effects which may result from the consumption of aquatic organisms and/or drinking water from the waterbody.

(iv) For carcinogenic substances, a criterion to protect human health from unacceptable cancer risk of greater than one (1) additional occurrence of cancer per one hundred thousand (100,000) population.

(B) For certain substances, one (1) or more of the CCCs identified in clause (A) are established and set forth in Table 1 (which table incorporates Table 2). If one (1) or more of the CCCs are absent from Table 1 or if a different criterion or criteria can be scientifically justified based on new toxicological data or site-specific conditions of water quality or resident species, such criterion or criteria may be calculated by the commissioner using the corresponding procedures prescribed by sections 8.3 through 8.6 of this rule.

(C) The CAC and TLSC for a substance apply in all waters outside a mixing zone for a discharge of that substance. Similarly, in waters where a public drinking water intake is not present or is unaffected by the discharge of a substance, the HLSC and the carcinogenic criterion for that substance based on consumption of organisms from the waterbody and

only incidental ingestion of water shall apply to all waters outside the mixing zone for a discharge of that substance. In waters where a public drinking water intake is present, the HLSC and the carcinogenic criterion for a substance based on consumption of organisms and potable water from the waterbody shall apply at the point of the public drinking water intake.

(D) All CCCs shall be met at the point at which they apply (outside of the mixing zone or point of drinking water intake).

(3) The toxicity criteria set forth for metals in Table 1 are expressed in terms of the acid-soluble fraction of the metals (unless specified otherwise) in order to be consistent with the ambient water quality criteria published by the U.S. Environmental Protection Agency (EPA) for these metals. In the absence of an analytical chemistry method approved by EPA for determination of the acid-soluble fraction of a metal, the criteria in Table 1 shall be enforced as total recoverable metals, except as otherwise provided in 327 IAC 5-2-11.1, until an acid-soluble analytical method is approved by EPA, and by the board through rulemaking.

Table 1  
Water Quality Criteria for Specific Substances

Substances	AAC (Maximum)		CCC (4-Day Average)	
			Outside of Mixing Zone	Point of Water Intake
			Aquatic Life (CAC)	Human Health
<u>Metals (µg/l)</u>				
(Acid soluble, except as indicated)				
Antimony			45,000 (T)	146 (T)
Arsenic (III) <sup>@</sup>	360	190	0.175 (C)	0.022 (C)
Barium				1,000 (D)
Beryllium			1.17 (C)	0.068 (C)
Cadmium # <sup>@</sup>	$e^{(1.128 [\ln \text{Hard}^*]-3.828)}$	$e^{(0.7852 [\ln \text{Hard}]-3.490)}$		10 (D)
Chromium (III)# <sup>@</sup>	$e^{(0.819 [\ln \text{Hard}]+3.688)}$	$e^{(0.8190 [\ln \text{Hard}]+1.561)}$	3,433,000 (T)	170,000 (T)
Chromium (VI) <sup>@</sup>	(dissolved) 16	11		50 (D)
Copper #	$e^{(0.9422 [\ln \text{Hard}]-1.464)}$	$e^{(0.8545 [\ln \text{Hard}]-1.465)}$		
Lead #	$e^{(1.273 [\ln \text{Hard}]-1.460)}$	$e^{(1.273 [\ln \text{Hard}]-4.705)}$		50 (D)
Mercury <sup>@</sup> \$	2.4	0.012	0.15 (T)	0.14 (T)
Nickel #	$e^{(0.8460 [\ln \text{Hard}]+3.3612)}$	$e^{(0.8460 [\ln \text{Hard}]+1.1645)}$	100 (T)	13.4 (T)
Selenium	130* *	35		10 (D)
Silver #	$e^{(1.72 [\ln \text{Hard}]-6.52)/2}^{**}$			50 (D)
Thallium			48 (T)	13 (T)
Zinc #	$e^{(0.8473 [\ln \text{Hard}]+0.8604)}$	$e^{(0.8473 [\ln \text{Hard}]+0.7614)}$		
<u>Organics (µg/l)</u>				
Acrolein			780 (T)	320 (T)
Acrylonitrile			6.5 (C)	0.58 (C)
Aldrin <sup>@</sup> \$	1.5**		0.00079 (C)	0.00074 (C)
Benzene <sup>@</sup>			400 (C)	6.6 (C)

Benzidine			0.0053 (C)	0.0012 (C)
Carbon Tetrachloride			69.4 (C)	4.0 (C)
Chlordane @\$	1.2**	0.0043	0.0048 (C)	0.0046 (C)
Chlorinated Benzenes				
Monochlorobenzene @				488 (T)
1,2,4,5-Tetrachlorobenzene			48 (T)	38 (T)
Pentachlorobenzene \$			85 (T)	74 (T)
Hexachlorbenzene @\$			0.0074 (C)	0.0072 (C)
Chlorinated Ethanes				
1,2-dichloroethane			2,430 (C)	9.4 (C)
1,1,1-trichloroethane @			1,030,000 (T)	18,400 (T)
1,1,2-trichloroethane @			418 (C)	6.0 (C)
1,1,2,2-tetrachloroethane@			107 (C)	1.7 (C)
Hexachloroethane @\$			87.4 (C)	19 (C)
Chlorinated Phenols				
2,4,5-trichlorophenol				2,600 (T)
2,4,6-trichlorophenol @			36 (C)	12 (C)
Chloroalkyl Ethers				
bis(2-chloroisopropyl) ether			4,360 (T)	34.7 (T)
bis(chloromethyl) ether			0.018 (C)	0.000038 (C)
bis(2-chloroethyl) ether			13.6 (C)	0.3 (C)
Chloroform			157 (C)	1.9 (C)
Chlorpyrifos \$	0.083	0.041		
DDT @\$	0.55**	0.0010	0.00024 (C)	0.00024 (C)
Dichlorobenzenes @			2,600 (T)	400 (T)
Dichlorobenzidine @			0.2 (C)	0.1 (C)
1,1-dichloroethylene			18.5 (C)	0.33 (C)
2,4-dichlorophenol @				3,090 (T)
Dichloropropenes			14,100 (T)	87 (T)
Dieldrin @\$	1.3**	0.0019	0.00076 (C)	0.00071 (C)
2,4-dinitrotoluene @			91 (C)	1.1 (C)
Dioxin (2,3,7,8-TCDD) @\$			0.0000001 (C)	0.0000001 (C)
1,2-diphenylhydrazine @			5.6 (C)	0.422 (C)
Endosulfan @	0.11**	0.056	159 (T)	74 (T)
Endrin @\$	0.09**	0.0023		1.0 (D)
Ethylbenzene @			3,280 (T)	1,400 (T)
Fluoranthene @\$			54 (T)	42 (T)
Halomethanes			157 (C)	1.9 (C)
Heptachlor @\$	0.26**	0.0038	0.0028 (C)	0.0028 (C)
Hexachlorobutadiene @\$			500 (C)	4.47 (C)
Hexachlorocyclohexane (HCH)				
alpha HCH @\$			0.31 (C)	0.09 (C)
beta HCH @\$			0.55 (C)	0.16 (C)
gamma HCH (Lindane) @\$	1.0**	0.080	0.63 (C)	0.19 (C)
Technical HCH @\$			0.41 (C)	0.12 (C)
Hexachlorocyclopentadiene @				206 (T)
Isophorone			520,000 (T)	5,200 (T)
Nitrobenzene				19,800 (T)
Nitrophenols				
4,6-dinitro-o-cresol			765 (T)	13.4 (T)

Dinitrophenol			14,300 (T)	70 (T)
Nitrosamines				
N-nitrosodiethylamine			12.4 (C)	0.008 (C)
N-nitrosodimethylamine			160 (C)	0.014 (C)
N-nitrosodibutylamine			5.9 (C)	0.064 (C)
N-nitrosodiphenylamine @			161 (C)	49 (C)
N-nitrosopyrrolidine			919 (C)	0.16 (C)
Parathion @	0.065	0.013		
Pentachlorophenol @	$e^{(1.005 [\text{pH}] - 4.830)}$	$e^{(1.005 [\text{pH}] - 5.290)}$		1,000 (T)
Phenol \$				3,500 (T)
Phthalate Esters				
Dimethyl phthalate			2,900,000 (T)	313,000 (T)
Diethyl phthalate			1,800,000 (T)	350,000 (T)
Dibutyl phthalate @\$			154,000 (T)	34,000 (T)
Di-2-ethylhexyl phthalate \$			50,000 (T)	15,000 (T)
Polychlorinated Biphenyls (PCBs) @\$		0.014	0.00079 (C)	0.00079 (C)
Carcinogenic Polynuclear Aromatic Hydrocarbons (PAHs) @\$			0.31 (C)	0.028 (C)
Tetrachloroethylene @			88.5 (C)	8 (C)
Toluene @			424,000 (T)	14,300 (T)
Toxaphene @\$	0.73	0.0002	0.0073 (C)	0.0071 (C)
Trichloroethylene @			807 (C)	27 (C)
Vinyl Chloride			5,246 (C)	20 (C)
<u>Other Substances</u>				
Asbestos (fibers/liter)				300,000 (C)
Chlorides (mg/l)	860	230		
Chlorine				
(Total Residual) (µg/l)	19	11		
Chlorine <sup>a</sup> (mg/l)				
(intermittent, total residual)		0.2		
Cyanide (Total) (µg/l)	22	5.2		200 (D)
Nitrate-N + Nitrite-N (mg/l)				10 (D)
Nitrite-N (mg/l)				1.0 (D)

Dissolved solids shall not exceed 750 mg/l in all waters.

Fluoride shall not exceed 2.0 mg/l in all waters, except the Ohio River and Interstate Wabash River where it shall not exceed 1.0 mg/l.

Sulfates shall not exceed 250 mg/l in all waters.

#See Table 2 for calculated AAC and CAC values at various hardness levels. The criteria from Table 2 may be utilized in the alternative to criteria from Table 1 to determine protective concentrations for the seven (7) metallic substances for acute and chronic toxicity based on the characteristic hardness for a particular waterbody. For hardness values other than those specifically listed in Table 2, the standard proportional interpolation technique should be used to obtain the corresponding criteria values.

\*Natural logarithm of hardness in milligrams per liter CaCO<sub>3</sub>.

\*\*One-half (1/2) of the final acute value (FAV) as calculated by procedures developed by U.S. EPA in 1980. This value would correspond to acute aquatic values calculated using IDEM procedures or U.S. EPA procedures developed in 1985 in which the calculated FAV is divided by two (2) to reduce acute toxicity.

T derived from threshold toxicity.

C derived from nonthreshold cancer risk.

D derived from drinking water standards, equal to or less than threshold toxicity.

@This substance, which has a log octanol-water partition coefficient greater than or equal to two (2.0), is considered to be bioconcentrating and of concern.

\$This substance is considered to be a bioaccumulative chemical of concern.

<sup>a</sup>To be considered an intermittent discharge, total residual chlorine shall not be detected in the discharge for a period of more than forty (40) minutes in duration and such periods shall be separated by at least five (5) hours.

Table 2

Acute (AAC) and chronic (CAC) aquatic criteria for certain metals at selected hardness values as calculated from equations in Table 1 (metals concentrations in micrograms per liter; hardness in milligrams per liter CaCO<sub>3</sub>).

Hardness	Cadmium		Chromium III		Copper		Lead		Nickel		Silver		Zinc	
	AAC	CAC	AAC	CAC	AAC	CAC	AAC	CAC	AAC	CAC	AAC	CAC	AAC	CAC
50	2	0.7	984	117	9	6	34	1	789	88	0.6	-	65	59
100	4	1.1	1737	207	18	12	82	3	1418	158	2.	-	117	106
150	6	1.6	2420	289	26	17	137	5	1999	222	4	-	165	149
200	9	2.0	3064	365	34	21	197	8	2549	283	7	-	210	191
250	11	2.3	3679	438	42	26	262	10	3079	342	10	-	254	230
300	14	2.7	4270	509	50	30	331	13	3592	400	13	-	297	269
350	16	3.0	4845	577	58	34	402	16	4093	455	18	-	338	306
400	19	3.4	5405	644	65	39	477	19	4582	509	22	-	379	343
450	21	3.7	5952	709	73	43	554	22	5063	563	27	-	419	379
500	24	4.0	6488	773	81	47	634	25	5535	615	32	-	458	415

(b) This subsection establishes minimum water quality for aquatic life. In addition to subsection (a), subdivisions (1) through (5) are established to ensure conditions necessary for the maintenance of a well-balanced aquatic community. Subdivisions (1) through (5) are applicable at any point in the waters outside of the mixing zone:

- (1) There shall be no substances which impart unpalatable flavor to food fish or result in noticeably offensive odors in the vicinity of the water.
- (2) No pH values below six (6.0) nor above nine (9.0), except daily fluctuations which exceed pH nine (9.0) and are correlated with photosynthetic activity, shall be permitted.
- (3) Concentrations of dissolved oxygen shall average at least five (5.0) milligrams per liter per calendar day and shall not be less than four (4.0) milligrams per liter at any time.
- (4) The following conditions for temperature:
  - (A) There shall be no abnormal temperature changes that may adversely affect aquatic life unless caused by natural conditions.
  - (B) The normal daily and seasonal temperature fluctuations that existed before the addition of heat due to other than natural causes shall be maintained.
  - (C) The maximum temperature rise at any time or place above natural temperatures shall not exceed five degrees Fahrenheit (5°F) (two and eight-tenths degrees Celsius (2.8°C)) in streams and three degrees Fahrenheit (3°F) (one and seven-tenths degrees Celsius (1.7°C)) in lakes and reservoirs.
  - (D) Water temperatures shall not exceed the maxi-

um limits in the following table during more than one percent (1%) of the hours in the twelve (12) month period ending with any month; at no time shall the water temperature at such locations exceed the maximum limits in Table 3 by more than three degrees Fahrenheit (3°F) (one and seven-tenths degrees Celsius (1.7°C)).

TABLE 3

	Ohio River Main Stem °F(°C)	Other Indiana Streams °F(°C)
January	50 (10.0)	50 (10.0)
February	50 (10.0)	50 (10.0)
March	60 (15.6)	60 (15.6)
April	70 (21.1)	70 (21.1)
May	80 (26.7)	80 (26.7)
June	87 (30.6)	90 (32.2)
July	89 (31.7)	90 (32.2)
August	89 (31.7)	90 (32.2)
September	87 (30.7)	90 (32.2)
October	78 (25.6)	78 (25.5)
November	70 (21.1)	70 (21.1)
December	57 (14.0)	57 (14.0)

- (5) The following criteria will be used to regulate ammonia:
  - (A) Except for waters covered in clause (B), at all times, all waters outside of mixing zones shall be

free of substances in concentrations which, on the basis of available scientific data, are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans,

animals, aquatic life, or plants.

(B) For those waters listed in subsection (c), the following ammonia criteria will apply outside the mixing zone:

Maximum Ammonia Concentrations  
(Unionized Ammonia as N)<sup>\*\*\*</sup>  
(mg/l)

pH	Temperature (°C)						
	0	5	10	15	20	25	30
6.5	0.0075	0.0106	0.0150	0.0211	0.0299	0.0299	0.0299
6.6	0.0092	0.0130	0.0183	0.0259	0.0365	0.0365	0.0365
6.7	0.0112	0.0158	0.0223	0.0315	0.0444	0.0444	0.0444
6.8	0.0135	0.0190	0.0269	0.0380	0.0536	0.0536	0.0536
6.9	0.0161	0.0228	0.0322	0.0454	0.0642	0.0642	0.0642
7.0	0.0191	0.0270	0.0381	0.0539	0.0761	0.0761	0.0761
7.1	0.0244	0.0316	0.0447	0.0631	0.0892	0.0892	0.0892
7.2	0.0260	0.0367	0.0518	0.0732	0.1034	0.1034	0.1034
7.3	0.0297	0.0420	0.0593	0.0837	0.1183	0.1183	0.1183
7.4	0.0336	0.0474	0.0669	0.0946	0.1336	0.1336	0.1336
7.5	0.0374	0.0528	0.0746	0.1054	0.1489	0.1489	0.1489
7.6	0.0411	0.0581	0.0821	0.1160	0.1638	0.1638	0.1638
7.7	0.0447	0.0631	0.0892	0.1260	0.1780	0.1780	0.1780
7.8	0.0480	0.0678	0.0958	0.1353	0.1911	0.1911	0.1911
7.9	0.0510	0.0720	0.1017	0.1437	0.2030	0.2030	0.2030
8.0	0.0536	0.0758	0.1070	0.1512	0.2135	0.2135	0.2135
8.1	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
8.2	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
8.3	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
8.4	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
8.5	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
8.6	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
8.7	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
8.8	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
8.9	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
9.0	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137

<sup>\*\*\*</sup>To calculate total ammonia, divide the number in the table by the value determined by:  $1/(10^{\text{pka}-\text{pH}} + 1)$ .

Where: pka =  $0.09018 + (2729.92/(T + 273.2))$   
 pH = pH of water  
 T = °C

24-Hour Average Ammonia Concentrations  
(Unionized Ammonia as N)<sup>\*\*\*</sup>  
(mg/l)

pH	Temperature (°C)						
	0	5	10	15	20	25	30
6.5	0.0005	0.0008	0.0011	0.0015	0.0015	0.0015	0.0015
6.6	0.0007	0.0010	0.0014	0.0019	0.0019	0.0019	0.0019
6.7	0.0009	0.0012	0.0017	0.0024	0.0024	0.0024	0.0024
6.8	0.0011	0.0015	0.0022	0.0031	0.0031	0.0031	0.0031
6.9	0.0014	0.0019	0.0027	0.0038	0.0038	0.0038	0.0038
7.0	0.0017	0.0024	0.0034	0.0048	0.0048	0.0048	0.0048
7.1	0.0022	0.0031	0.0043	0.0061	0.0061	0.0061	0.0061
7.2	0.0027	0.0038	0.0054	0.0077	0.0077	0.0077	0.0077
7.3	0.0034	0.0048	0.0068	0.0097	0.0097	0.0097	0.0097
7.4	0.0043	0.0061	0.0086	0.0122	0.0122	0.0122	0.0122
7.5	0.0054	0.0077	0.0108	0.0153	0.0153	0.0153	0.0153
7.6	0.0068	0.0097	0.0136	0.0193	0.0193	0.0193	0.0193
7.7	0.0086	0.0122	0.0172	0.0242	0.0242	0.0242	0.0242
7.8	0.0092	0.0130	0.0184	0.0260	0.0260	0.0260	0.0260
7.9	0.0098	0.0138	0.0196	0.0276	0.0276	0.0276	0.0276
8.0	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.1	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.2	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.3	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.4	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.5	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.6	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.7	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.8	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.9	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
9.0	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294

<sup>\*\*\*</sup>To calculate total ammonia, divide the number in the table by the value determined by:  $1/(10^{\text{pka}-\text{pH}} + 1)$ .

Where:  $\text{pka} = 0.09018 + (2729.92/(T + 273.2))$   
 $\text{pH} = \text{pH of water}$   
 $T = \text{°C}$

(c) This subsection establishes water quality for cold water fish. In addition to subsections (a) through (b), the following standards are established to ensure conditions necessary for the maintenance of a well-balanced, cold water fish community and are applicable at any point in the waters outside of the mixing zone:

- (1) Waters designated as salmonid waters and that shall be protected for cold water fish are those waters designated by the Indiana department of natural resources for put-and-take trout fishing.
- (2) In the waters listed in subdivision (1), dissolved

oxygen concentrations shall not be less than six (6.0) milligrams per liter at any time and shall not be less than seven (7.0) milligrams per liter in areas where spawning occurs during the spawning season, and in areas used for imprinting during the time salmonids are being imprinted.

- (3) In those waters listed in subdivision (1), the maximum temperature rise above natural shall not exceed two degrees Fahrenheit (2°F) (one and one-tenth degree Celsius (1.1°C)) at any time or place nor, unless due to natural causes, shall the temperature

exceed the following:

(A) Seventy degrees Fahrenheit (70°F) (twenty-one and one-tenth degrees Celsius (21.1°C)) at any time.

(B) Sixty-five degrees Fahrenheit (65°F) (eighteen and three-tenths degrees Celsius (18.3°C)) during spawning and imprinting periods.

(d) This subsection establishes bacteriological quality for recreational uses. In addition to subsection (a), the criteria in this subsection are to be used to evaluate waters for full body contact recreational uses, to establish wastewater treatment requirements, and to establish effluent limits during the recreational season, which is defined as the months of April through October, inclusive. *E. coli* bacteria, using membrane filter (MF) count, shall not exceed one hundred twenty-five (125) per one hundred (100) milliliters as a geometric mean based on not less than five (5) samples equally spaced over a thirty (30) day period nor exceed two hundred thirty-five (235) per one hundred (100) milliliters in any one (1) sample in a thirty (30) day period.

(e) This subsection establishes surface water quality for public water supply. In addition to subsections (a) and (d), the following standards are established to protect the surface water quality at the point at which water is withdrawn for treatment for public supply:

(1) The coliform bacteria group shall not exceed five thousand (5,000) per one hundred (100) milliliters a monthly average value (either MPN or MF count); nor exceed this number in more than twenty percent (20%) of the samples examined during any month; nor exceed twenty thousand (20,000) per one hundred (100) milliliter in more than five percent (5%) of such samples.

(2) Taste and odor producing substances, other than naturally occurring, shall not interfere with the production of a finished water by conventional treatment consisting of coagulation, sedimentation, filtration, and disinfection.

(3) The concentrations of either chlorides or sulfates shall not exceed two hundred fifty (250) milligrams per liter other than due to naturally occurring sources.

(4) Surface waters shall be considered acceptable for public supplies if Radium-226 and Strontium-90 are present in amounts not exceeding three (3) and ten (10) picocuries per liter, respectively. In the known absence of Strontium-90 and alpha emitters, the water supply is acceptable when the gross beta concentrations do not exceed one thousand (1,000) picocuries per liter.

(5) Chemical constituents in the waters shall not be present in such levels as to prevent, after conventional treatment, meeting the drinking water standards contained in 327 IAC 8-2, due to other than natural causes.

(f) This subsection establishes water quality for industrial water supply. In addition to subsection (a), the standard to ensure protection of water quality at the point at which water is withdrawn for use (either with or without treatment) for industrial cooling and processing is that, other than from naturally occurring sources, the dissolved solids shall not exceed seven hundred fifty (750) milligrams per liter at any time. A specific conductance of one thousand two hundred (1,200) micromhos per centimeters (at twenty-five degrees Celsius (25°C)) may be considered equivalent to a dissolved solids concentration of seven hundred fifty (750) milligrams per liter.

(g) This subsection establishes water quality for agricultural uses. The standards to ensure water quality conditions necessary for agricultural use are the same as those in subsection (a).

(h) This subsection establishes water quality for limited uses. The quality of waters classified for limited uses pursuant to section 3(a)(5) of this rule shall, at a minimum, meet the following standards:

(1) The standards contained in subsection (a).

(2) The standards contained in subsection (d).

(3) The standards contained in subsection (f), where applicable.

(4) The waters must be aerobic at all times.

(5) Notwithstanding the preceding subdivisions, the quality of a limited use stream at the point where it becomes physically or chemically capable of supporting a higher use or at its interface with a higher use water segment shall meet the standards which are applicable to the higher use water.

(i) This subsection establishes water quality for exceptional uses. Waters classified for exceptional uses warrant extraordinary protection. Unless standards are otherwise specified on a case-by-case basis, the quality of all waters designated for exceptional use shall be maintained without degradation.

(j) Notwithstanding section 7 of this rule, the acute aquatic and chronic aquatic criteria (AAC and CAC) established in subsection (a) shall apply to the underground portion of the Lost River system and other underground streams and their tributaries that support fish or other higher aquatic life forms. (*Water Pollution Control Board; 327 IAC 2-1-6; filed Sep 24, 1987, 3:00 p.m.: 11 IR 581; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1020; errata, 13 IR 1861; errata filed Jul 6, 1990, 5:00 p.m.: 13 IR 2003; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1725; errata filed May 7, 1993, 4:00 p.m.: 16 IR 2189; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1348; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3376*)

**327 IAC 2-1-7 Interim ground water quality standards (Repealed)**

Sec. 7. (Repealed by Water Pollution Control Board; filed Feb 4, 2002, 11:00 a.m.: 25 IR 1882)

### 327 IAC 2-1-8 Methods of analysis

**Authority:** IC 13-1-3-7; IC 13-7-7-5

**Affected:** IC 13-1-3-7; IC 13-7-7-5

Sec. 8. The analytical procedures used as methods of analysis to determine the chemical, bacteriological, biological, and radiological quality of waters sampled shall be in accordance with 40 C.F.R. 136, the sixteenth edition of Standard Methods for the Examination of Water and Wastewater, or methods approved by the commissioner and the Environmental Protection Agency. (Water Pollution Control Board; 327 IAC 2-1-8; filed Sep 24, 1987, 3:00 p.m.: 11 IR 583; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1033)

#### 327 IAC 2-1-8.1 Calculation of criteria for toxic substances; general

**Authority:** IC 13-1-3-7; IC 13-7-7-5

**Affected:** IC 13-1-3-7; IC 13-7-7-5

Sec. 8.1. Water quality standards for the state of Indiana indicate that all waters at all times and at all places, including the mixing zone, shall be free of substances or combinations of substances which are in amounts sufficient to be acutely toxic to humans, other animals, plants, or aquatic life. Toxic substances include, but are not limited to, those substances identified under Section 307(a) of the Clean Water Act. The allowable concentration of a toxic substance in surface water shall be determined for that substance by the procedures in sections 8.2 through 8.8 of this rule. (Water Pollution Control Board; 327 IAC 2-1-8.1; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1033; errata filed Jul 6, 1990, 5:00 p.m.: 13 IR 2003)

#### 327 IAC 2-1-8.2 Determination of acute aquatic criteria (AAC)

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-4

Sec. 8.2. In order to ensure that the concentration of a substance or combination of substances does not become acutely toxic to aquatic organisms, an acute aquatic criterion (AAC) will be determined by one (1) of the following methods:

(1) The following for Method 1:

(A) If no AAC is available in section 6(a)(2) Table 1 of this rule for the substance, or if a different AAC can be scientifically justified based on new toxicological data, or site-specific conditions concerning water quality characteristics, or species present, an

AAC can be calculated using the procedures in subdivision (2).

(B) Alternatively, or in addition to those criteria in section 6(a)(1)(D) of this rule, a site-specific acute aquatic criterion based on whole effluent toxicity can be utilized. This criterion shall not exceed ten percent (10%) mortality above control mortality, as measured by the most sensitive species tested, in one hundred percent (100%) effluent. The toxicity of the whole effluent shall be determined as follows:

(i) Three (3) species will be tested initially, and these will represent species from ecologically diverse taxa to the extent possible. The exact species to be tested will be determined by the commissioner on a case-by-case basis with the objective of using resident or representative species. Once the toxicity of the effluent has been characterized, only the most sensitive of the species tested need to be used in such further testing as may be required.

(ii) Whole effluent toxicity testing will be required on up to three (3) sets of composite effluent samples to determine the variability of the effluent.

(2) The following for Method 2:

(A) An acute criterion can be calculated using modified U.S. EPA procedures when acute toxicity data are available for at least five (5) North American genera of freshwater organisms, including representatives of the following families:

(i) The family Salmonidae.

(ii) The family Cyprinidae or Centrarchidae.

(iii) Another family, not represented in item (i) or (ii), in the Class Osteichthyes.

(iv) The family Daphnidae.

(v) Another aquatic macroinvertebrate family.

(B) Resident species data are preferred for the above required data set. If one (1) or more of the required families are not a site resident, the requirement may be waived and appropriate substitution will be made. If data are not available for resident species, data for nonresident species may be substituted and will be assumed to be representative of resident species. In addition, site-specific modifications to acute aquatic life criteria developed in accordance with this clause may be developed when the local water characteristics such as pH, hardness, temperature, or color alter the biological availability or toxicity of a pollutant. The AAC is calculated using the following procedures:

(i) If the acute toxicity of the chemical has not been adequately shown to be related to a water quality characteristic, such as, hardness, pH, or temperature, the AAC is calculated using the

following procedures:

(AA) For each species for which at least one (1) acute value is available, the species mean acute value (SMAV) is calculated as the geometric mean of the results of all tests in which the concentrations of test material were stable as shown by measured values. For a species for which no such result is available, the SMAV should be calculated as the geometric mean of all available acute values, i.e., results of flow-through tests in which the concentrations were not measured and results of static and renewal tests based on initial concentrations of test material.

(BB) For each genus for which one (1) or more SMAVs are available, the genus mean acute value (GMAV) is calculated as the geometric mean of the SMAVs available for the genus.

(CC) The GMAVs are ordered from high to low.

(DD) Ranks (R) are assigned to the GMAVs from "1" for the lowest to "N" for the highest. If two (2) or more GMAVs are identical, successive ranks are arbitrarily assigned.

(EE) The cumulative probability, P, is calculated for each GMAV as  $R/(N + 1)$ .

(FF) The (T) GMAVs ( $T = 2$  for  $N = 5$ ;  $T = 3$  for  $N = 6$  or  $7$ ;  $T = 4$  for  $N = 8$  or greater) are selected which have cumulative probabilities closest to five-hundredths (0.05). If there are less than fifty-nine (59) GMAVs, these will always be the two (2) (for  $N = 5$ ), three (3) (for  $N = 6$  or  $7$ ), or four (4) (for  $N = 8$  or greater) lowest GMAVs.

(GG) Using the selected GMAVs and Ps, the final acute value (FAV) is calculated as:

$$S^2 = \frac{E * ((\ln \text{GMAV})^2) - ((E(\ln \text{GMAV}))^2)/T}{E(P) - ((E(\sqrt{P}))^2)/T}$$

$$L = (E(\ln \text{GMAV}) - S(E(\sqrt{P}))) / T$$

$$A = S(\sqrt{0.05}) + L$$

$$\text{FAV} = e^A$$

$$\text{AAC} = \text{FAV}/2$$

$$*E = \text{Summation}$$

(HH) If, for a commercially, recreationally, or ecologically important species, the geometric mean of the acute values from flow-through tests in which the concentrations of test material were measured is lower than the calculated FAV, then that geometric mean is used as the FAV instead of the calculated FAV.

(ii) If data are available to show that acute toxicity to two (2) or more species is similarly related to a

water quality characteristic, the AAC is calculated using the procedures as follows:

(AA) For each species for which comparable acute toxicity values are available at two (2) or more different values of the water quality characteristic, a least squares regression of the acute toxicity values on the corresponding values of the water quality characteristic is performed to obtain the slope of the curve that describes the relationship. Because the best documented relationship is that between hardness and acute toxicity of metals and a log-log relationship fits these data, geometric means and natural logarithms of both toxicity and water quality are used in the rest of this procedure to illustrate the method. For relationships based on other water quality characteristics, such as pH or temperature, no transformation or a different transformation might fit the data better, and appropriate changes will be made as necessary throughout this method.

(BB) Each acute slope is evaluated as to whether or not it is meaningful, taking into account the range and number of tested values of the water quality characteristic and the degree of agreement within and between species. If meaningful slopes are not available for at least one (1) fish and one (1) invertebrate, or if the available slopes are too dissimilar, or if too few data are available to adequately define the relationship between acute toxicity and the water quality characteristic, the AAC is calculated using the procedures in item (i).

(CC) Individually, for each species, the geometric mean of the available acute values is calculated and then each of the acute values for a species is divided by the mean for the species. This normalizes the acute values so that the geometric mean of the normalized values for each species individually and for any combination of species is one (1.0).

(DD) The values of the water quality characteristic are similarly normalized for each species individually.

(EE) All the normalized data are treated as if they were for the same species and a least squares regression of all the normalized acute values on the corresponding normalized values of the water quality characteristic is performed to obtain the pooled acute slope, V.

(FF) For each species the geometric mean, W, of the acute toxicity values and the geometric mean, X, of the water quality characteristic are calcu-

lated. (These were calculated in subitems (CC) through (DD).)

(GG) For each species the logarithmic intercept,  $Y$ , is calculated using the equation:

$$Y = \ln W - V(\ln X - \ln Z)$$

(HH) For each species calculate the SMAV at  $Z$  using the equation:

$$\text{SMAV} = e^Y$$

(II) Obtain the FAV at  $Z$  by using the procedures described in subitems (BB) through (HH), replacing "value" with "intercept".

(JJ) The final acute equation is written as:

final acute value (FAV) =  $e^{(V(\ln(\text{water quality characteristic})) + \ln A - V(\ln Z))}$

Where:  $V$  = pooled acute slope (from subitem (EE))

$A$  = FAV at  $Z$  (from subitem (II))

Since  $V$ ,  $A$ , and  $Z$  are known, the FAV can be calculated for any selected value of the water quality characteristic.

(KK) The AAC is equal to the FAV/2.

(C) If data are not available for at least five (5) North American freshwater genera meeting the requirements in clause (A), go to subdivision (3).

(3) The following for Method 3:

(A) If the required data to derive the AAC in subdivision (2)(B) are not present in the acute toxicity data base and at least one (1)  $LC_{50}$  value is available for a daphnid species and either fathead minnow, bluegill, or rainbow trout, a FAV is calculated by dividing the lowest SMAV for the daphnid species, fathead minnow, bluegill, and rainbow trout by five (5) if rainbow trout are represented or ten (10) if rainbow trout are not represented. The AAC equals the FAV divided by two (2). If appropriate, the AAC will be made a function of a water quality characteristic in a manner similar to that described in subdivision (2)(B)(ii).

(B) If the data required in clause (A) are not available, no AAC can be calculated and the discharger will be required to develop the minimum data base (ninety-six (96) hour  $LC_{50}$  for rainbow trout, fathead minnow, or bluegill and a forty-eight (48) hour  $LC_{50}$  for a daphnid) needed to calculate the AAC.

*(Water Pollution Control Board; 327 IAC 2-1-8.2; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1033; errata filed Jul 6, 1990, 5:00 p.m.: 13 IR 2004; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1357; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3376)*

### 327 IAC 2-1-8.3 Determination of chronic aquatic criterion (CAC)

Authority: IC 13-14-8; IC 13-14-9; IC 13-18-3

Affected: IC 13-18-4

Sec. 8.3. In order to ensure that the concentration of a substance or combination of substances does not produce chronic effects on aquatic organisms, a chronic aquatic criterion (CAC) will be determined by one (1) of the following methods:

(1) The following for Method 1:

(A) If no CAC is given for the substance in section 6(a)(2) Table 1 of this rule, or if different CAC can be scientifically justified based on new toxicological data, or site-specific conditions concerning water quality characteristics or species present, a CAC can be calculated using the procedures in subdivision (2).

(B) Alternatively, or in addition to the CAC in section 6(a)(2) of this rule, a site-specific CAC based on whole effluent toxicity can be utilized. This criterion shall not exceed the no observable effect level (NOEL) based on an appropriate chronic toxicity test, as measured by the most sensitive species tested, at an effluent dilution equal to that provided by no more than one-fourth ( $1/4$ ) of the  $Q_{7,10}$  flow of the receiving stream. The toxicity of the whole effluent shall be determined as follows:

(i) Three (3) species will be tested initially, and these will represent species from ecologically diverse taxa to the extent possible. The exact species to be tested will be determined by the commissioner on a case-by-case basis with the objective of using resident or representative species. Once the toxicity of the effluent has been characterized, only the most sensitive of the species tested need be used in such further testing as may be required.

(ii) Whole effluent toxicity testing will be required on up to three (3) sets of composite effluent samples to determine the variability of the effluent.

(2) The following for Method 2:

(A) The CAC is derived in the same manner as the FAV in section 8.2(2) of this rule by substituting CAC for FAV, chronic for acute, MATC (Maximum Acceptable Toxicant Concentration) for  $LC_{50}$ , SMCV (Species Mean Chronic Value) for SMAV, and GMCV (Genus Mean Chronic Value) for GMAV.

(B) If chronic toxicity data are not available for at least five (5) North American freshwater genera meeting the requirements in section 8.2(2)(A) of this rule, go to subdivision (3).

(C) Site-specific modifications to chronic aquatic life criteria developed in accordance with this section may be developed when the local water characteristics, such as pH, hardness, temperature, or color, alter the biological availability or toxicity of a pollutant.

(3) The following for Method 3:

(A) The CAC can be calculated by dividing the FAV by an acute-chronic ratio (or geometric mean of the acute-chronic ratios if more than one (1) is available) for at least one (1) North American freshwater species.

(B) If no acute-chronic ratio is available for at least one (1) North American freshwater species, go to subdivision (4).

(4) The following for Method 4:

(A) The CAC can be calculated by dividing the FAV by a factor of forty-five (45). If, for a commercially, recreationally, or ecologically important species, the geometric mean of the chronic values is lower than the calculated CAC, then that geometric mean is used as the CAC instead of the calculated CAC.

(B) If the data needed in clause (A) are not available, no CAC can be calculated and the discharger will be required to develop the minimum data base necessary to calculate the CAC (ninety-six (96) hour LC<sub>50</sub> for rainbow trout, fathead minnow, or bluegill and a forty-eight (48) hour LC<sub>50</sub> for a daphnid).

*(Water Pollution Control Board; 327 IAC 2-1-8.3; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1035; errata, 13 IR 1861; errata filed Jul 6, 1990, 5:00 p.m.: 13 IR 2004; errata filed Jul 24, 1990, 4:55 p.m.: 13 IR 2138; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1359)*

### **327 IAC 2-1-8.4 Determination of the terrestrial life cycle safe concentration (TLSC)**

**Authority:** IC 13-1-3-7; IC 13-7-7-5

**Affected:** IC 13-1-3-7; IC 13-7-7-5

Sec. 8.4. The concentration to protect wildlife is the terrestrial life cycle safe concentration (TLSC). The minimum toxicity data requirement for derivation of a TLSC shall consist of an acute oral LD<sub>50</sub> for rats. When mammalian and avian toxicity data are available, a TLSC shall be calculated for both groups. The final TLSC is the lowest of the two (2) values. The TLSC shall be derived by one (1) of the following methods, depending on the type and quality of the toxicity data base:

(1) If a chronic, subchronic, or subacute no observable adverse effect level (NOAEL) from mammalian or avian species exposed to toxicant contaminated water is available:

$$TLSC = \frac{NOAEL \text{ (mg/l)}}{U}$$

Where: U = uncertainty factor (U = 10-100 depending on quality of study)

(2) If a chronic, subchronic, or subacute NOAEL from mammalian or avian species exposed to toxicant

contaminated feed is available:

$$TLSC = \frac{NOAEL \text{ (ppm)} \times C \times \frac{W_a}{V_w}}{U}$$

Where: C = weight of feed consumed daily expressed as a fraction of test animal's body weight

W<sub>a</sub> = weight of test animal (kg)

V<sub>w</sub> = volume of water consumed daily by the test animal

(3) If a chronic, subchronic, or subacute NOAEL from mammalian or avian species exposed to toxicant by gavage is available:

$$TLSC = \frac{NOAEL \text{ (mg/kg/day)} \times \frac{W_a}{V_w} \times Fw}{U}$$

Where: Fw = fraction of days dosed per week

(4) If an oral rat LD<sub>50</sub> is available:

$$TLSC = \frac{LD_{50} \text{ (mg/kg)} \times \frac{W_a}{V_w} \times M}{10}$$

Where: M = one ten-thousandth (0.0001), acute to chronic application factor

(5) TLSCs are best derived from data involving oral exposure. However, if available oral data are insufficient, it may be useful to use data from other exposure routes. Use of such data will depend on the specific pharmacokinetic and toxicological properties of each chemical.

(6) If an acceptable NOAEL is lacking, the lowest observable adverse effect level (LOAEL) may be substituted in some cases for NOAEL, with an additional uncertainty factor of one (1) to ten (10).

(7) On the basis of available information, the TLSC is evaluated as to whether it is consistent with sound scientific judgment. If not, the commissioner will direct the evaluation of appropriate modifications of these procedures.

*(Water Pollution Control Board; 327 IAC 2-1-8.4; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1036; errata, 13 IR 1861; errata filed Jul 6, 1990, 5:00 p.m.: 13 IR 2004)*

### **327 IAC 2-1-8.5 Determination of the human life cycle safe concentration (HLSC)**

**Authority:** IC 13-1-3-7; IC 13-7-7-5

**Affected:** IC 13-1-3-7; IC 13-7-7-5

Sec. 8.5. The concentration to protect public health from threshold effect toxicants is the human life cycle safe concentration (HLSC). The minimum toxicity data

requirement for derivation of an HLSC shall consist of an acute oral LD<sub>50</sub> for rats. The HLSC shall be derived in the following manner:

(1) The HLSC shall be derived from appropriate toxicological data using the following formula:

$$\text{HLSC} = \frac{\text{MgT}(\text{mg/day})}{\text{WC} + (\text{F} \times \text{BCF})}$$

Where: MgT = maximum milligrams of toxicant per day causing no adverse effects to humans when ingested daily for lifetime

WC = volume of water consumed daily in liters (two (2) liters per day for surface water protected for drinking water supply; one-hundredth (0.01) liter per day for surface water not protected for drinking water supply)

F = sixty-five ten-thousandths (0.0065) kilograms per day, daily consumption of fish by humans

BCF = bioconcentration factor in  $\frac{\text{mg/kg}}{\text{mg/l}}$  as

determined in section 8.7 of this rule

(2) The MgT shall be derived by one (1) of the following methods depending on the type and quality of the toxicity data base:

(A) If a scientifically valid maximum contaminant level (MCL) from the national interim primary drinking water regulations is available:

$$\text{MgT} = \text{MCL} (\text{mg/l}) \times V_h$$

Where: V<sub>h</sub> = two (2) liters per day, volume of water consumed daily by humans

(B) If a chronic, subchronic, or subacute no observable adverse effect level (NOAEL) for humans exposed to toxicant contaminated drinking water is available:

$$\text{MgT} = \frac{\text{NOAEL} (\text{mg/l}) \times V_h}{U} (1/\text{day})$$

Where: U = uncertainty factor (U = 10 - 100)

(C) If a scientifically valid acceptable daily intake (ADI) is available from the federal Food and Drug Administration regulations: MgT = ADI.

(D) If a chronic, subchronic, or subacute NOAEL from mammalian test species exposed to toxicant contaminated drinking water is available:

$$\text{MgT} = \frac{\text{NOAEL}(\text{mg/l}) \times \frac{V_w}{W_a} \times W_h}{B}$$

Where: V<sub>w</sub> = volume of water consumed daily by test animal (liters per day)

W<sub>a</sub> = weight of test animal (kg)

W<sub>h</sub> = seventy (70) kilograms, weight of human

B = uncertainty factor (B = 100–1,000 depending on quality of study)

(E) If a chronic, subchronic, or subacute NOAEL from mammalian test species exposed to toxicant contaminated food is available:

$$\text{MgT} = \frac{\text{NOAEL}(\text{ppm}) \times C \times W_h}{B}$$

Where: C = daily food consumption expressed as a fraction of the animal's body weight

(F) If a chronic, subchronic, or subacute NOAEL from mammalian test species exposed to toxicant by gavage is available:

$$\text{MgT} = \frac{\text{NOAEL}(\text{mg/kg/day}) \times F_w \times W_h}{B}$$

Where: F<sub>w</sub> = fraction of days dosed per week

(G) If an oral rat LD<sub>50</sub> is available:

$$\text{MgT} = \frac{\text{LD}_{50}(\text{mg/kg}) \times M \times W_h}{100}$$

Where: M = one-ten thousandth (0.0001), acute to chronic application factor

(H) If an acceptable NOAEL is lacking, the lowest observable adverse effect level (LOAEL) may be substituted in some cases for NOAEL, with an additional uncertainty factor of one (1) to ten (10).

(I) HLSCs are best derived from data involving oral exposure. However, if available oral data are insufficient, it may be useful to use data from other exposure routes. Use of such data will depend on the specific pharmacokinetic and toxicological properties of each chemical.

(J) On the basis of available information, the HLSC is evaluated as to whether it is consistent with sound scientific judgment. If not, the commissioner will direct the evaluation of appropriate modifications of these procedures.

*(Water Pollution Control Board; 327 IAC 2-1-8.5; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1037; errata filed Jul 6, 1990, 5:00 p.m.: 13 IR 2004)*

### **327 IAC 2-1-8.6 Determination of concentration providing an acceptable degree of protection to public health for cancer**

**Authority:** IC 13-1-3-7; IC 13-7-7-5

**Affected:** IC 13-1-3-7; IC 13-7-7-5

Sec. 8.6. (a) The concentration providing an acceptable degree of protection to public health for cancer shall be derived as provided in subsection (b)(1). For carcinogens

that are assumed to cause cancer by a nonthreshold mechanism, a greater degree of protection than that derived in subsection (b)(1) may be proposed where this greater protection is achievable through utilization of control measures already in place.

(b) Initially, any chemical for which at least one (1) published mammalian carcinogenicity study of suitable quality demonstrates an association between exposure to the chemical and a statistically or biologically significant increase in the incidence of malignant or benign tumors shall be considered a carcinogen. With respect to "suitable quality," the only type of carcinogenicity study which will be automatically excluded from consideration as sole evidence of the carcinogenic properties of a particular chemical will be studies in which the tested chemical was administered via an injection route of exposure and an increase in malignant or benign tumors was produced only at the site of injection. Not included in this category are studies in which an injection dosing was administered intratracheally or by gavage. The commissioner shall reevaluate the carcinogenic potential of substances when new data of suitable quality become available.

(1) A water concentration of the carcinogen shall be derived from human epidemiological data or from appropriate animal research data using the following formula:

$$C = \frac{D \times W_h}{WC + (F \times BCF)}$$

Where: C = concentration of the carcinogen (mg/l)

D = dose derived in clause (A), (B), or (C) (mg/kg/day)

$W_h$  = seventy (70) kilograms, weight of an average human

WC = daily water consumption (0.01 liters per day for surface water not protected for drinking water supply; 2.0 liters per day for surface waters protected for drinking water supply)

F = sixty-five ten-thousandths (0.0065) kilograms per day, daily fish consumption

BCF = bioconcentration factor in  $\frac{\text{mg/kg}}{\text{mg/l}}$  as determined in section 8.7 of this rule

(A) The dose (D) may be derived from appropriate human epidemiological data on a case-by-case basis by the commissioner.

(B) Whenever appropriate human epidemiological data are not available, a nonthreshold mechanism

shall be assumed for carcinogens which have not been adequately demonstrated to cause cancer by a threshold mechanism. The dose (D) shall be the concentration estimated to cause one (1) additional cancer over the background rate in one hundred thousand (100,000) individuals exposed to that concentration calculated using the following method:

(i) All carcinogenesis bioassay data are reviewed and data of appropriate quality are used for the quantitative risk estimations. The data are fitted into the multistage model using the computer model GLOBAL 82 developed by Howe and Crump (1982). The upper ninety-five percent (95%) confidence limit on risk at the one (1) in one hundred (100) risk level is divided by the maximum likelihood dose at the same level of risk which determines the slope,  $q_1^*$ . This is taken as an upper bound of the potency of the chemical in inducing cancer at low doses. Whenever the multistage model does not fit the data, as determined by the Chi-square goodness of fit statistical test, the model is refitted to the data omitting the highest dose. This is continued until an acceptable fit is determined as described in the U.S. EPA 1980 water quality criteria documents (45 Fed. Reg. 79316-79379). If a single study in which a chemical induces more than one (1) type of tumor is available, then the response for the tumor type predicting the highest estimate of  $q_1^*$  is generally used for the risk assessment. If two (2) or more studies of equal quality are available, but vary in any of the following: species, strain, sex, or tumor type, then the data set giving the highest estimate of  $q_1^*$  is generally used for the risk assessment. If two (2) or more studies exist which are identical regarding species, strain, sex, tumor type, and are of equal quality, then the geometric mean of the  $q_1^*$  values from these data sets is used.

(ii) The dose corresponding to an estimated one (1) additional cancer in one hundred thousand (100,000) exposed test organisms is determined by dividing  $10^{-5}$  by the value for  $q_1^*$ .

(iii) A species sensitivity factor is used to account for differences between test species and man. It is assumed that milligrams per surface area per day is an equivalent dose between species. The value may be calculated by dividing the average weight of a human seventy (70) kilograms by the weight of the test species and taking the cube root of this value; the slope  $q_1^*$  is multiplied by this factor. However, if adequate pharmacokinetic and metabolism studies are available, this data may be factored into the adjustment for species differences on a case-by-case basis.

(iv) All doses are adjusted to give a lifetime average daily dose. If dosing was only for a fraction of a lifetime, then the total dose is averaged over the entire life span.

(v) If the duration of experiment ( $L_e$ ) is less than the natural life span of the test animal ( $L$ ), the slope,  $q_1^*$ , is multiplied by the factor

$$\left(\frac{L}{L_e}\right)^3.$$

(C) Whenever appropriate human epidemiological data are not available, and the preponderance of data suggests that the chemical causes cancer by a threshold mechanism and does not interact with DNA, the dose ( $D$ ) for chemicals shall be calculated from animal research data by applying a safety factor to an appropriate toxicity end point.

(i) The appropriate toxicity end point shall be determined by the commissioner on a case-by-case basis.

(ii) The safety factor shall be determined by the commissioner based on an evaluation of appropriate toxicological and pharmacological considerations including, mechanism of carcinogenesis, number and type of tumors induced, the spontaneous incidence of tumors, the number of animal species tested and affected, metabolic considerations, epidemiologic observation on exposed humans, extent of the data supporting a nongenetic mechanism, and other pertinent information.

(iii) A species sensitivity factor may be used to account for differences between test species and man.

(2) On the basis of available information, the concentration providing an acceptable degree of protection to public health for cancer is evaluated as to whether it is consistent with sound scientific judgment. If not, the commissioner will direct the evaluation of appropriate modifications of these procedures.

*(Water Pollution Control Board; 327 IAC 2-1-8.6; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1038; errata filed Jul 6, 1990, 5:00 p.m.: 13 IR 2004)*

### **327 IAC 2-1-8.7 Determination of bioconcentration factor**

**Authority:** IC 13-1-3-7; IC 13-7-7-5

**Affected:** IC 13-1-3-7; IC 13-7-7-5

Sec. 8.7. The final bioconcentration factor ( $BCF_f$ ) standardized to reflect the value for fresh fish tissue having a lipid content of nine and six-tenths percent (9.6%) shall be determined as follows in order of preference:

(1) Measured, steady-state bioconcentration factors

from standardized laboratory tests shall be recorded as  $BCF_m$ . If more than a single value is available, the  $BCF_m$  shall be equal to the geometric mean of the reported values.

(2) If bioconcentration factors are available from other laboratory tests, the  $BCF_m$  will be the projected steady-state BCF as extrapolated from the test data.

(3) If measured bioconcentration factors ( $BCF_m$ ) are not available from laboratory studies, a calculated bioconcentration factor ( $BCF_c$ ) will be determined by the following equation:

$$\log BCF_c = 0.847 \log Kow - 0.628$$

(A) If a measured Kow is not available for the chemical of interest the Kow may be calculated according to standard references and used in the regression equation in this subdivision.

(B) If a Kow cannot be calculated,  $BCF_c$  may be estimated on a case-by-case basis using other regression equations or correlations as appropriate.

(4) The final bioconcentration factor ( $BCF_f$ ) will be obtained by normalization to nine and six-tenths percent (9.6%) lipids as follows:

(A) For measured bioconcentration factors:

$$BCF_f = BCF_m \frac{(9.6)}{L}$$

Where:  $BCF_m$  = measured bioconcentration factor

$L$  = percent lipid content of fish used in the test

(B) For bioconcentration factors calculated from Kow:

$$BCF_f = BCF_c \frac{(9.6)}{4.8}$$

Where:  $BCF_c$  = calculated bioconcentration factor from log Kow or other regression equations

4.8 = average percent lipid for test fish used to develop the regression equation in subdivision (3)

(5) The commissioner shall direct the evaluation of the final bioconcentration factor ( $BCF_f$ ) calculated above to determine if a trophic level adjustment is warranted.

*(Water Pollution Control Board; 327 IAC 2-1-8.7; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1039)*

### **327 IAC 2-1-8.8 Variances from water quality standards; conditions**

**Authority:** IC 13-1-3-7; IC 13-7-7-5; IC 13-7-7-6; IC 13-7-10-1

**Affected:** IC 4-22-2; IC 13-1-3; IC 13-7-4-1; IC 13-7-7.1

Sec. 8.8. (a) A permit applicant or permittee may apply to the commissioner for a variance from the water quality standard used to derive a water quality-based effluent

limitation (WQBEL) contained in a NPDES permit for a specific substance. The application for such a variance shall be submitted in accordance with the requirements specified in 327 IAC 5-3-4.1.

(b) The commissioner may approve all or part of a requested variance, or modify and approve a requested variance, if the permit applicant demonstrates that implementing a proposed methodology, which includes any production process(es), wastewater treatment technology, or combination thereof used to reduce pollutants discharged in the wastewater from a facility, as identified pursuant to 327 IAC 5-3-4.1(b)(2)(A), will cause an undue hardship or burden upon the applicant.

(c) In making a determination on a variance application, the commissioner shall balance the environmental impact likely to result if the variance is granted against the hardship or burden upon the applicant if the variance is not granted. In balancing these factors, the commissioner shall consider the following to determine if the hardship or burden upon the applicant is undue:

(1) The cost and cost effectiveness of pollutant removal by implementing the methodologies proposed by the applicant and the methodology capable of attaining the WQBEL.

(2) The reduction in concentrations and loadings of pollutants attainable by the methodologies proposed by the applicant as compared with the reduction attainable by use of the methodology capable of attaining the WQBEL.

(3) The impact of the proposed methodologies and the methodology capable of attaining the WQBEL on the price of the goods or services provided by the applicant.

(4) Information on the relative price of goods or services in the same market as the applicant.

(5) The overall impact of attaining the WQBEL and implementing the proposed methodologies on employment at the facility.

(6) Information on the type and magnitude of adverse or beneficial environmental impacts, including the net impact on the receiving water, resulting from the proposed methodologies that could be applied to the control of the substance for which a variance is applied.

(7) Other relevant information requested by the commissioner or supplied by the applicant or the public.

(d) The commissioner may grant the variance when the requirements of subsections (b) and (c) are met.

(e) A determination to grant or deny a requested variance shall be made in accordance with the procedures specified in 327 IAC 5-3-4.1. In making this determination, the commissioner may also consider other information available to the agency or supplied by the applicant or the public.

(f) A variance applies only to the permit applicant requesting the variance and only to the substance specified in the variance application. The granting of a variance does not imply or require that the water quality standard corresponding to the variance be modified through a rulemaking in accordance with IC 4-22-2 and IC 13-7-7.1.

(g) A variance or any renewal thereof shall not be granted for a term greater than that allowed by IC 13-7-7-6. Notwithstanding the time at which the application for a variance is submitted under 327 IAC 5-3-4.1, a variance shall not be granted for a term greater than the term remaining under the permit to which the variance is attached.

(h) Neither the filing of a variance application nor the granting of a variance shall be grounds for the staying or dismissing of or a defense in a pending enforcement action. A variance shall be prospective only. (*Water Pollution Control Board; 327 IAC 2-1-8.8; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1040; errata filed Jul 6, 1990, 5:00 p.m.: 13 IR 2004; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1733; errata filed Mar 10, 1993, 5:00 p.m.: 16 IR 1832; filed Feb 15, 1995, 1:30 p.m.: 18 IR 1820*)

### 327 IAC 2-1-9 Definitions

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 9. In addition to the definitions contained in IC 13-11-2 and 327 IAC 1, the following definitions apply throughout this title:

(1) "Acceptable daily intake" or "ADI" represents the maximum amount of a substance which if ingested daily for a lifetime results in no adverse effects to humans.

(2) "Acute aquatic criterion" or "AAC" means the highest concentration of chemical that, if met instream will protect the aquatic life present from mortality or other irreversible effects due to short term exposure. The AAC is equal to one-half (½) the final acute value (FAV).

(3) "Acute toxicity" means the ability of a chemical to cause a debilitating or injurious change in an organism which results from a single or short term exposure to the chemical.

(4) "Bioaccumulative chemical of concern" or "BCC" means any chemical which, upon entering the surface waters, by itself or as its transformation product, bioaccumulates in aquatic organisms by a factor greater than one thousand (1,000) at six percent (6%) lipids.

(5) "Bioconcentration" is the increase in concentration of the chemical of concern and its metabolites in or on

the target organisms (or specified tissues thereof) relative to the concentration of the chemical of concern in the ambient water.

(6) "Bioconcentration factor" or "BCF" is the number used to relate substance residue in aquatic organisms to the concentration of the substance in the waters in which the organisms reside.

(7) "Carcinogen" means a chemical which causes an increased incidence of benign or malignant neoplasms, or a substantial decrease in the latency period between exposure and onset of neoplasms through oral or dermal exposure, or through inhalation exposure when the cancer occurs at nonrespiratory sites in at least one (1) mammalian species or man through epidemiological and/or clinical studies.

(8) "Chronic aquatic criterion" or "CAC" means the highest concentration of chemical that, if met instream will protect the aquatic life present from toxic effects due to long term exposure, e.g., adverse effects on growth and reproduction.

(9) "Chronic toxicity" means the ability of a chemical to cause an injurious or debilitating effect in an organism which results from repeated exposure to a chemical for a time period representing a substantial portion of the natural life expectancy of that organism.

(10) "Coliform bacteria" means all the aerobic and facultatively anaerobic, gram-negative, nonsporeforming bacilli that produce acid and gas from the fermentation of lactose.

(11) "Community" means a general collective term to describe the varieties of aquatic species and associated organisms living together in a waterbody.

(12) "Discharge-induced mixing" or "DIM" means mixing initiated by the use of submerged, high rate diffuser outfall structures which provide turbulent initial mixing and will minimize organism exposure time.

(13) "Effluent" means a wastewater discharge from a point source to the waters of the state.

(14) "Final acute value" or "FAV" means the concentration of a substance that is lower than all but five percent (5%) of the mean acute values (MAVs) that cause a specific level of acute toxicity to an aquatic taxon in laboratory test.

(15) "Full body contact" means direct contact with the water to the point of complete submergence.

(16) "Geometric mean" means the Nth root of the product of N quantities. Alternatively, the geometric mean can be calculated by adding the logarithms of the N numbers, dividing the sum by N, and taking the antilog of the quotient.

(17) "Great Lakes system" has the same definition in this rule as contained under 327 IAC 2-1.5-2(42).

(18) "Ground water" means such accumulations of underground water, natural and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon this state, but excluding manmade underground storage or conveyance structures.

(19) "Human life cycle safe concentration" or "HLSC" is the highest concentration of a chemical to which a human is exposed continuously for a lifetime, and which results in no observable adverse effects to human and its progeny.

(20) "Indigenous" means, generally, an organism native to and growing and reproducing in a particular region. For purposes of this rule, this term also includes historically nonnative species introduced by the Indiana department of natural resources as part of a program of wildlife management whether such species reproduce or not.

(21) "LC<sub>50</sub>" means the median lethal concentration which is the concentration of a test material in a suitable diluent at which fifty percent (50%) of the exposed organisms die during a specified time period.

(22) "LD<sub>50</sub>" means the median lethal dose of a chemical which is the amount of a test material per body weight which, when administered, results in fifty percent (50%) mortality to the organisms during a specified time period.

(23) "Life cycle safe concentration" means the highest concentration of a chemical to which an organism is exposed continuously for a lifetime, and which results in no observable adverse effects to the organism and its progeny.

(24) "Limit of quantification" means a concentration of an analyte at which one can state with a degree of confidence, using the most sensitive analytical test method approved by EPA, for that sample matrix that an analyte is present at a specific concentration in the sample tested.

(25) "Log K<sub>ow</sub>" means the log (base 10) of the n-octanol/water partition coefficient.

(26) "Lowest observable adverse effect level" or "LOAEL" means the lowest tested concentration causing the occurrence of an injurious or debilitating effect.

(27) "MATC" means the maximum acceptable toxicant concentration obtained by calculating the geometric mean of the lower and upper chronic limits from a chronic test. A lower chronic limit is the highest tested concentration which did not cause the occurrence of a specified adverse effect. An upper chronic limit is the lowest tested concentration which did cause the occurrence of a specified adverse effect and above which all tested concentrations caused such an occurrence.

(28) “Maximum contaminant level” or “MCL” means the maximum permissible level of a contaminant in water which is delivered to the free flowing outlet of the ultimate user of a public water supply system.

(29) “Mean acute value” or “MAV” means the concentration of a substance that causes a specific level of acute toxicity to aquatic organisms in some taxonomic group.

(30) “Mixing zone” means an area contiguous to a discharge where the discharged wastewater mixes with the receiving waters. Where the quality of the effluent is lower than that of the receiving waters, it may not be possible to attain within the mixing zone all beneficial uses which are attained outside the zone. The mixing zone should not be considered a place where effluents are treated.

(31) “NOAEL” means the highest level of toxicant which results in no observable adverse effects to exposed test organisms.

(32) “n-octanol/water partition coefficient ( $K_{ow}$ )” means the ratio of the octanol to water equilibrium concentrations of a compound.

(33) “Nonthreshold mechanism” means a process which results in some possible effect no matter what level is present. There is no level which may not produce an effect.

(34) “Persistent substance” means a chemical that is long-lived in soil, aquatic environments, and animal and plant tissues and is not readily broken down by biological or physiochemical processes.

(35) “Point source” means a discernible, confined, and discrete conveyance, from which wastewater is or may be discharged to the waters of the state.

(36) “Policy”, as employed herein, means a statement of administrative practice or decision-making guidelines to be followed or implemented to the maximum extent feasible with respect to an identified problematic situation but to be less than strictly enforceable in contrast to a standard or rule of law.

(37) “Public water supply” means any wells, reservoirs, lakes, rivers, sources of supply, pumps, mains, pipes, facilities, and structures through which water is obtained, treated as may be required, and supplied through a water distribution system for sale to or consumption by the public for drinking, domestic, or other purposes, including state-owned facilities even though the water may not be sold to the public.

(38) “Risk” means the probability that a substance, when released to the environment, will cause an adverse effect in exposed humans or other living organisms.

(39) “Risk assessment” means the analytical process used to determine the level of risk.

(40) “Standard” means a definite numerical value or narrative statement promulgated by the board to maintain or enhance water quality to provide for and fully protect designated use of the waters of the state.

(41) “Steady-state” means an equilibrium condition has been achieved in the body burden of a substance in an organism. This is assumed when the rate of loss of a substance matches its rate of uptake.

(42) “Surface waters of the state” or “surface water” means such accumulations of water on the land surface, natural and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon this state, but the term does not include any private pond or any pond, reservoir, or facility built for reduction or control of pollution or cooling water prior to discharge unless the discharge therefrom causes or threatens to cause water pollution.

(43) “Terrestrial life cycle safe concentration” or “TLSC” is the highest concentration of chemical to which wildlife is exposed continuously for a lifetime and which results in no observable adverse effects to wildlife and its progeny.

(44) “Threshold mechanism” means a process which results in some effect if a certain level is exceeded, but which produces no effect below that level.

(45) “Toxic substances” means substances which are or may become harmful to plant or animal life, or to food chains when present in sufficient concentrations or combinations. Toxic substances include, but are not limited to, those pollutants identified as toxic under Section 307(a)(1) of the Clean Water Act.

(46) “Variance” means a deviation from a water quality standard.

(47) “Waters of the state” means such accumulations of water, surface and underground, natural and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon this state, but the term does not include any private pond, or any pond, reservoir, or facility built for reduction or control of pollution or cooling of water prior to discharge unless the discharge therefrom causes or threatens to cause water pollution.

(48) “Water use designations” means a use of the waters of the state as established by this rule, including, but not limited to, industrial water supply, agricultural use, public water supply, full body contact, aquatic life, limited use, and exceptional use.

(49) “Well-balanced aquatic community” means an aquatic community which is diverse in species composition, contains several different trophic levels, and is not composed mainly of strictly pollution tolerant species.

(50) “Zone of initial dilution” or “ZID” means that

area of the receiving stream after the end of the pipe where an instantaneous volume of water gives a one-to-one dilution of the discharge.

*(Water Pollution Control Board; 327 IAC 2-1-9; filed Sep 24, 1987, 3:00 p.m.: 11 IR 584; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1041; errata filed Jul 6, 1990, 5:00 p.m.: 13 IR 2004; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1360; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3376)*

### **327 IAC 2-1-10 Reclassification proposals for limited or exceptional use designation**

**Authority:** IC 13-1-3-7; IC 13-7-7-5

**Affected:** IC 13-1-3-7; IC 13-7-7-5

Sec. 10. (a) A person who wishes to propose that a particular body of the waters of the state be considered by the commissioner for limited use or exceptional use classification must submit to the commissioner a written proposal identifying the water body and the proposed classification, stating the rationale for the proposal, and including any other supporting documentation. After receiving the commissioner's recommendation on a proposal, if the board determines that a water body is appropriate for reclassification for limited use or exceptional use, it will initiate a rulemaking for that purpose.

(b) The commissioner will consider factors such as the following in making recommendations to the board with regard to proposals for the reclassification of a water body for limited use or exceptional use. These factors are listed as guidelines to provide some insight into the way the commissioner's recommendations may be made, but are not intended to be all encompassing. Irrespective of these factors, the commissioner's recommendations generally will be case-by-case determinations based on professional judgment after on-site evaluations.

(1) Factors relating to limited use designations:

(A) the waterway has a Q(7),(10) low flow upstream of any existing or proposed discharge of 0.1 cubic feet per second or less;

(B) suitable habitat to support a well-balanced fish community is severely limited or absent;

(C) the waterway is affected by irreversible conditions, natural or man-induced which came into existence prior to January 1, 1983, which are not practicably controllable and prevent establishment of a well-balanced fish community;

(D) the water body has no unique or exceptional features; and/or

(E) potential or existing uses made of the water body by people in the immediate area would not be adversely affected by a limited use designation.

(2) Factors relating to exceptional use designations:

(A) the presence of a unique or exceptional habitat

or species in the water body;

(B) the presence of a rare or endangered species in the water body;

(C) the presence of exceptional aesthetic quality in the immediate environs of the water body;

(D) the water body is within the boundaries of or flows through a designated natural area, nature preserve, or state or national park or forest;

(E) the water body supports an excellent sports fishery;

(F) the water body possesses exceptional quality; or

(G) intensive recreational use is made of the water body.

*(Water Pollution Control Board; 327 IAC 2-1-10; filed Sep 24, 1987, 3:00 pm: 11 IR 585)*

### **327 IAC 2-1-11 Limited and exceptional use; designated waters**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-4

Sec. 11. (a) The following waters of the state are designated for limited use pursuant to section 3(a)(5) of this rule:

(1) Prides Creek in Pike County upstream from its confluence with White River.

(2) Redkey Run and Halfway Creek in Jay County from the Redkey STP to two (2) miles downstream.

(3) Kentland STP receiving stream along NYC railroad upstream from its confluence with Montgomery Ditch in Newton County.

(4) Buck Creek in Sullivan County from the Sullivan South STP to two and one-fourth (2.25) miles downstream.

(5) Arbogast Ditch upstream from its confluence with West Fork of White River in Randolph County.

(6) Jefferson Ditch in Grant County from the Upland STP to its confluence with Lake Branch.

(7) Vinson Drain and Mud Creek in Madison County from the Summitville STP to the confluence of Mud Creek and Star Creek.

(8) Ackerman Branch and Mill Creek in Dubois County to the confluence of Mill Creek and Little Creek.

(9) North Prong of Stotts Creek in Johnson County from the Bangersville STP to one and one-fourth (1.25) miles downstream.

(10) An unnamed tributary of Four Mile Creek in Greene County from the Lyons STP to its confluence with Four Mile Creek.

(11) An unnamed stream in Dubois County, which is the outlet of Huntingburg City Lake, from the City Lake Dam downstream to its confluence with Ell Creek.

- (12) Leavell Ditch in Tipton County upstream from its confluence with Buck Creek.
- (13) Buck Creek in Tipton County upstream from its confluence with Cicero Creek.
- (14) Schlatter Ditch which becomes Bacon Prairie Creek in Tipton County upstream from a point one (1) mile upstream of the confluence of Bacon Prairie Creek and Cicero Creek.
- (15) An unnamed ditch in Posey County flowing north out of the town of Cynthiana along the Chicago and Eastern Illinois Railroad then west along the Posey-Gibson County Line to its confluence with Black River.
- (16) Laughery Creek in Ripley county from the Napoleon STP to a point three (3.0) miles downstream. (County Road 300 West Extended.)
- (17) An unnamed tributary and Hurricane Creek in Gibson County from the Haubstadt STP to the confluence of Hurricane Creek and the West Fork of Pigeon Creek.
- (18) Plasterers Creek in Martin County from the Loogootee STP downstream to the confluence with Friends Creek.
- (19) Montgomery Ditch and Black River in Gibson County from the Owensville STP to the Antioch Road Bridge.
- (20) Brewer Ditch in Johnson County from the Whiteland STP to the County Road 250 N bridge.
- (21) An unnamed tributary of Little Otter Creek in Ripley County from the Holton STP to its confluence with Little Otter Creek.
- (22) The Silverthorn Branch of Wildcat Creek in Clinton County from the Rossville STP to its confluence with the Middle Fork of Wildcat Creek.
- (23) An unnamed tributary of the West Fork of White River in Randolph County from the Farmland STP to its confluence with the West Fork of White River.
- (24) Hawk Run and Blackhawk Creek in Dubois and Spencer counties from the Schuler Packing Company discharge downstream to the Anderson River.
- (25) Spring Creek in Vigo County from the Hercules, Inc., outfall downstream to the Wabash River.
- (26) Little Buck Creek in Henry County to its confluence with Hillside Brook.
- (27) Francis Duro Ditch in Blackford County from the Blackford Canning Company discharge downstream to its confluence with Prairie Creek.
- (28) The unnamed ditch receiving the Sperry Rubber Company discharge and Richland Creek in Franklin County from the confluence of the unnamed tributary downstream to the Whitewater River.
- (29) Eight Mile Creek in Wells County to the confluence of Eight Mile Creek and Maple Creek.

(b) The following waters of the state are designated for exceptional use under section 3(a)(6) of this rule:

- (1) Big Pine Creek in Warren County downstream of the State Road 55 bridge near the town of Pine Village to its confluence with the Wabash River.
- (2) Mud Pine Creek in Warren County from the bridge on the County Road between Brisco and Rainsville to its confluence with Big Pine Creek.
- (3) Fall Creek in Warren County from the old C.R. 119 bridge in the NW quarter of Section 21, Township 22N, Range 8W downstream to its confluence with Big Pine Creek.
- (4) Indian Creek in Montgomery County from the County Road 650 West bridge downstream to its confluence with Sugar Creek.
- (5) Clifty Creek in Montgomery County within the boundaries of Pine Hills Nature Preserve.
- (6) Bear Creek in Fountain County from the bridge on County Road 450 North to its confluence with the Wabash River.
- (7) Rattlesnake Creek in Fountain County from the bridge on County Road 450 North to its confluence with Bear Creek.
- (8) The small tributary to Bear Creek in Fountain County within the Portland Arch Nature Preserve which enters Bear Creek at the sharpest bend and has formed the small natural bridge called Portland Arch.
- (9) Blue River from the confluence of the West and Middle Forks of the Blue River in Washington County downstream to its confluence with the Ohio River.
- (10) The South Fork of Blue River in Washington County from the Horner's Chapel Road bridge downstream to its confluence with Blue River.
- (11) Lost River and all surface and underground tributaries upstream from the Orangeville Rise (T2N, R1W, Section 6) and the Rise of Lost River (T2N, R1W, Section 7) and the mainstem of the Lost River from the Orangeville Rise downstream to its confluence with the East Fork of White River.

*(Water Pollution Control Board; 327 IAC 2-1-11; filed Sep 24, 1987, 3:00 p.m.: 11 IR 585; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1362; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3376)*

### **327 IAC 2-1-12 Incorporation by reference**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-4

Sec. 12. The following materials have been incorporated by reference into this rule. Each of the following items, in addition to its title, will list the name and address of where it may be located for inspection and copying:

(1) Clean Water Act (CWA) 33 U.S.C. 1251 et seq. in effect December 16, 1996, available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.

(2) Code of Federal Regulations (40 CFR 136) in effect December 16, 1996, available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, or the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.

*(Water Pollution Control Board; 327 IAC 2-1-12; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1363; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3376)*

### **Rule 1.5. Water Quality Standards Applicable to All State Waters Within the Great Lakes System**

- 327 IAC 2-1.5-1 Applicability of rule
- 327 IAC 2-1.5-2 Definitions
- 327 IAC 2-1.5-3 Water quality goals
- 327 IAC 2-1.5-4 Antidegradation standard
- 327 IAC 2-1.5-5 Surface water use designations; multiple uses
- 327 IAC 2-1.5-6 Bioaccumulative chemicals of concern
- 327 IAC 2-1.5-7 Mixing zone guidelines
- 327 IAC 2-1.5-8 Minimum surface water quality criteria
- 327 IAC 2-1.5-9 Interim ground water quality standards  
*(Repealed)*
- 327 IAC 2-1.5-10 Methods of analysis
- 327 IAC 2-1.5-11 Determination of Tier I aquatic life criteria
- 327 IAC 2-1.5-12 Determination of Tier II aquatic life values
- 327 IAC 2-1.5-13 Determination of bioaccumulation factors (BAFs)
- 327 IAC 2-1.5-14 Determination of human health criteria and values
- 327 IAC 2-1.5-15 Determination of wildlife criteria
- 327 IAC 2-1.5-16 Site-specific modifications to Tier I criteria and Tier II values
- 327 IAC 2-1.5-17 Variances from water quality standards for point sources
- 327 IAC 2-1.5-18 Designation of a waterbody as a limited use water or an outstanding state resource water
- 327 IAC 2-1.5-19 Limited use waters and outstanding state resource waters
- 327 IAC 2-1.5-20 Incorporation by reference

#### **327 IAC 2-1.5-1 Applicability of rule**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3  
**Affected:** IC 13-18-4

Sec. 1. The water quality standards established by this rule shall apply to all waters of the state within the Great Lakes system. *(Water Pollution Control Board; 327 IAC 2-1.5-1; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1363)*

#### **327 IAC 2-1.5-2 Definitions**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 2. In addition to the definitions contained in IC 13-11-2 and 327 IAC 1, the following definitions apply throughout this article, 327 IAC 5, and 327 IAC 15:

(1) "Acceptable daily exposure" or "ADE" means an estimate of the maximum daily dose of a substance which is not expected to result in adverse noncancer effects to the general human population, including sensitive subgroups.

(2) "Acceptable endpoints" (subchronic and chronic), for the purpose of wildlife criteria derivation, means those endpoints that affect reproductive or developmental success, organismal viability or growth, or any other endpoint that is, or is directly related to, a parameter that influences population dynamics.

(3) "Acute-chronic ratio" or "ACR" means a standard measure of the acute toxicity of a material divided by an appropriate measure of the chronic toxicity of the same material under comparable conditions.

(4) "Acute toxic unit" or "TU<sub>a</sub>" means 100/LC<sub>50</sub> where the LC<sub>50</sub> is expressed as a percent effluent in the test medium of an acute whole effluent toxicity (WET) test that is statistically or graphically estimated to be lethal to fifty percent (50%) of the test organisms.

(5) "Acute toxicity" means concurrent and delayed adverse effects that result from an acute exposure and occur within any short observation period which begins when the exposure begins, may extend beyond the exposure period, and usually does not constitute a substantial portion of the life span of the organism.

(6) "Adverse effect" means any deleterious effect to organisms due to exposure to a substance. The term includes effects that are or may become debilitating, harmful, or toxic to the normal functions of the organism, but does not include nonharmful effects, such as tissue discoloration alone or the induction of enzymes involved in the metabolism of the substance.

(7) "Baseline BAF" means the following:

(A) For organic chemicals, a BAF that is based on the concentration of freely dissolved chemical in the ambient water and takes into account the partitioning of the chemical within the organism.

(B) For inorganic chemicals, a BAF that is based on the wet weight of the tissue.

(8) "Baseline BCF" means the following:

(A) For organic chemicals, a BCF that is based on the concentration of freely dissolved chemical in the ambient water and takes into account the partitioning of the chemical within the organism.

(B) For inorganic chemicals, a BCF that is based on

the wet weight of the tissue.

(9) "Bioaccumulation" means the net accumulation of a substance by an organism as a result of uptake from all environmental sources.

(10) "Bioaccumulation factor" or "BAF" means the ratio (in L/kg) of a substance's concentration in tissue of an aquatic organism to its concentration in the ambient water, in situations where both the organism and its food are exposed and the ratio does not change substantially over time.

(11) "Bioaccumulative chemical of concern" or "BCC" has the meaning set forth in section 6 of this rule.

(12) "Bioconcentration" means the net accumulation of a substance by an aquatic organism as a result of uptake directly from the ambient water through gill membranes or other external body surfaces.

(13) "Bioconcentration factor" or "BCF" means the ratio (in liters per kilogram) of a substance's concentration in tissue of an aquatic organism to its concentration in the ambient water, in situations where the organism is exposed through the water only and the ratio does not change substantially over time.

(14) "Biota-sediment accumulation factor" or "BSAF" means the ratio (in kilograms of organic carbon per kilogram of lipid) of a substance's lipid-normalized concentration in tissue of an aquatic organism to its organic carbon-normalized concentration in surface sediment, in situations where:

- (A) the ratio does not change substantially over time;
- (B) both the organism and its food are exposed; and
- (C) the surface sediment is representative of average surface sediment in the vicinity of the organism.

(15) "Carcinogen" means a substance that causes an increased incidence of benign or malignant neoplasms, or substantially decreases the time to develop neoplasms, in animals or humans. The classification of carcinogens is discussed in section 13(b)(1) of this rule.

(16) "Chronic effect", for purposes of wildlife criteria derivation, means:

- (A) an adverse effect that is measured by assessing an acceptable endpoint; and
- (B) results from continual exposure over several generations, or at least over a significant part of the test species' projected life span or life stage.

(17) "Chronic toxic unit" or "TU<sub>c</sub>" means 100/NOEC or 100/IC<sub>25</sub>, where the NOEC and IC<sub>25</sub> are expressed as a percent effluent in the test medium.

(18) "Chronic toxicity" means concurrent and delayed adverse effects that occur only as a result of a chronic exposure.

(19) "Clean Water Act" or "CWA" means the federal Water Pollution Control Act, as amended (33 U.S.C.

1251 et seq.).

(20) "Coliform bacteria" means all the aerobic and facultatively anaerobic, gram-negative, nonsporeforming bacilli that produce acid and gas from the fermentation of lactose.

(21) "Community" means a general collective term to describe the varieties of aquatic species and associated organisms living together in a waterbody.

(22) "Criteria" means a definite numerical value or narrative statement promulgated by the board to maintain or enhance water quality to provide for and fully protect designated uses of the waters of the state.

(23) "Criterion continuous concentration" or "CCC" means an estimate of the highest concentration of a material in the water column to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect.

(24) "Criterion maximum concentration" or "CMC" means an estimate of the highest concentration of a material in the water column to which an aquatic community can be exposed briefly without resulting in an unacceptable effect.

(25) "Depuration" means the loss of a substance from an organism as a result of any active or passive process.

(26) "Designated uses" has the meaning set forth in section 5 of this rule, whether or not they are being attained.

(27) "EC<sub>50</sub>" refers to a statistically or graphically estimated concentration that is expected to cause one (1) or more specified effects in fifty percent (50%) of a group of organisms under specified conditions.

(28) "Effluent" means a wastewater discharge from a point source to the waters of the state.

(29) "Endangered or threatened species" includes those species that are listed as endangered or threatened under Section 4 of the Endangered Species Act (ESA).

(30) "ESA" means the Endangered Species Act (ESA), 16 U.S.C. 1531 through 16 U.S.C. 1544.

(31) "Existing uses" includes those uses actually attained in the waterbody on or after November 28, 1975, whether or not they are included under section 5 of this rule.

(32) "Final acute value" or "FAV" means:

- (A) a calculated estimate of the concentration of a test material such that ninety-five percent (95%) of the genera (with which acceptable acute toxicity tests have been conducted on the material) have higher GMAVs; or
- (B) the SMAV of an important or critical species, if the SMAV is lower than the calculated estimate.

(33) "Final chronic value" or "FCV" means:

(A) a calculated estimate of the concentration of a test material such that ninety-five percent (95%) of the genera (with which acceptable chronic toxicity tests have been conducted on the material) have higher GMCVs;

(B) the quotient of an FAV divided by an appropriate acute-chronic ratio; or

(C) the SMCV of an important or critical species, if the SMCV is lower than the calculated estimate or the quotient, whichever is applicable.

(34) "Final plant value" or "FPV" means the lowest plant value that was obtained with an important aquatic plant species in an acceptable toxicity test for which the concentrations of the test material were measured and the adverse effect was biologically important.

(35) "Food-chain multiplier" or "FCM" means the ratio of a BAF to an appropriate BCF.

(36) "Full body contact" means direct contact with the water to the point of complete submergence.

(37) "Genus mean acute value" or "GMAV" means the geometric mean of the SMAVs for the genus.

(38) "Genus mean chronic value" or "GMCV" means the geometric mean of the SMCVs for the genus.

(39) "Geometric mean" means the Nth root of the product of N quantities. Alternatively, the geometric mean can be calculated by adding the logarithms of the N numbers, dividing the sum by N, and taking the antilog of the quotient.

(40) "Great Lakes" means Lake Erie and Lake Michigan.

(41) "Great Lakes states" means Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin.

(42) "Great Lakes system" means all the streams, rivers, lakes, and other waters of the state within the drainage basin of the Great Lakes within Indiana.

(43) "Great Lakes water quality wildlife criterion" or "GLWC" means the concentration of a substance that is likely to, if not exceeded, protect avian and mammalian wildlife populations inhabiting the Great Lakes basin from adverse effects resulting from the ingestion of water and aquatic prey taken from surface waters of the Great Lakes system. These criteria are based on existing toxicological studies of the substance of concern and quantitative information about the exposure of wildlife species to the substance, that is, food and water consumption rates. Since toxicological and exposure data for individual wildlife species are limited, a GLWC is derived using a methodology similar to that used to derive noncancer human health criteria. Separate avian and mammalian values are developed using taxonomic class-specific toxicity data and exposure data for five (5) representative Great

Lakes basin wildlife species. The following wildlife species selected are representative of avian and mammalian species resident in the Great Lakes basin that are likely to experience the highest exposures to bioaccumulative contaminants through the aquatic food web:

- (A) Bald eagle.
- (B) Herring gull.
- (C) Belted kingfisher.
- (D) Mink.
- (E) River otter.

(44) "Ground water" means such accumulations of underground water, natural and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon this state, but excluding manmade underground storage or conveyance structures.

(45) "High quality waters" means waterbodies in which, on a parameter by parameter basis, the quality of the waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water. The term includes any waterbody for which the pollutant has not been detected in:

- (A) the water column; and
- (B) nontransient aquatic organisms at levels that would indicate that a water quality criterion is not being met.

(46) "Human cancer criterion" or "HCC" refers to a human cancer value (HCV) for a pollutant that meets the minimum data requirements for Tier I specified in section 14 of this rule.

(47) "Human cancer value" or "HCV" means the maximum ambient water concentration of a substance at which a lifetime of exposure will represent a plausible upper-bound risk of contracting cancer of one (1) in one hundred thousand (100,000) using the exposure assumptions specified in section 14 of this rule from either:

- (A) drinking the water, consuming fish from the water, and water-related recreational activities; or
- (B) consuming fish from the water and water-related recreational activities.

(48) "Human noncancer criterion" or "HNC" refers to a human noncancer value (HNV) for a pollutant that meets the minimum data requirements for Tier I specified in section 14 of this rule.

(49) "Human noncancer value" or "HNV" means the maximum ambient water concentration of a substance at which adverse noncancer effects are not likely to occur in the human population from lifetime exposure using section 14 of this rule from either:

- (A) drinking the water, consuming fish from the

water, and water-related recreational activities; or  
(B) consuming fish from the water, and water-related recreation activities.

(50) “Inhibition concentration 25” or “IC<sub>25</sub>” means the toxicant concentration that would cause a twenty-five percent (25%) reduction in a nonquantal biological measurement for the test population. For example, the IC<sub>25</sub> is the concentration of toxicant that would cause a twenty-five percent (25%) reduction in mean young per female or in growth for the test population.

(51) “LC<sub>50</sub>” refers to a statistically or graphically estimated concentration that is expected to be lethal to fifty percent (50%) of a group of organisms under specified conditions.

(52) “Linearized multi-stage model” means a conservative mathematical model for cancer risk assessment. This model fits linear dose-response curves to low doses. It is consistent with a no-threshold model of carcinogenesis, that is, exposure to even a very small amount of the substance is assumed to produce a finite increased risk of cancer.

(53) “Lowest observed adverse effect level” or “LOAEL” means the lowest tested dose or concentration of a substance that resulted in an observed adverse effect in exposed test organisms when all higher doses or concentrations resulted in the same or more severe effects.

(54) “Maximum contaminant level” or “MCL” means the maximum permissible level of a contaminant in water that is delivered to the free flowing outlet of the ultimate user of a public water supply system.

(55) “Mixing zone” means an area contiguous to a discharge where the discharged wastewater mixes with the receiving water. Where the quality of the effluent is lower than that of the receiving water, it may not be possible to attain within the mixing zone all beneficial uses attained outside the zone. The mixing zone should not be considered a place where effluents are treated.

(56) “New Great Lakes discharger” has the meaning set forth in 327 IAC 5-1.5-36.

(57) “No observed adverse effect level” or “NOAEL” is the highest tested dose or concentration of a substance that resulted in no observed adverse effect in exposed test organisms where higher doses or concentrations resulted in an adverse effect.

(58) “No observed effect concentration” or “NOEC” is the highest concentration of toxicant to which organisms are exposed in a full life cycle or partial life cycle (short term) test, that causes no observable adverse effects on the test organisms, that is, the highest concentration of toxicant in which the values for the observed responses are not statistically significantly different from the controls.

(59) “Nonthreshold mechanism” means a process that results in some possible effect no matter what level is present. There is no level that may not produce an effect.

(60) “Occur at the site” includes the species, genera, families, orders, classes, and phyla that:

(A) are usually present at the site;

(B) are present at the site only seasonally due to migration;

(C) are present intermittently because they periodically return to or extend their ranges into the site;

(D) were present at the site in the past, are not currently present at the site due to degraded conditions, and are expected to return to the site when conditions improve; or

(E) are present in nearby bodies of water, are not currently present at the site due to degraded conditions, and are expected to be present at the site when conditions improve.

The taxa that occur at the site cannot be determined merely by sampling downstream and upstream of the site at one (1) point in time. The term does not include taxa that were once present at the site but cannot exist at the site now due to permanent physical alteration of the habitat at the site, for example, alterations resulting from dams.

(61) “Octanol-water partition coefficient” or “K<sub>OW</sub>” means the ratio of the concentration of a substance in the n-octanol phase to its concentration in the aqueous phase in an equilibrated two-phase octanol-water system. For log K<sub>OW</sub>, the log of the octanol-water partition coefficient is a base ten (10) logarithm.

(62) “Open waters of Lake Michigan” means all of the waters within Lake Michigan lakeward from a line drawn across the mouth of tributaries to the lake, including all waters enclosed by constructed breakwaters. For the Indiana Harbor Ship Canal, the boundary of the open waters of Lake Michigan is delineated by a line drawn across the mouth of the harbor from the East Breakwater Light (1995 United States Coast Guard Light List No. 19675) to the northernmost point of the LTV Steel property along the west side of the harbor.

(63) “Outstanding national resource waters” means those waters designated as such by Indiana. The designation shall describe the quality of such waters to serve as the benchmark of the water quality that shall be maintained and protected. Waters that may be considered for designation as outstanding national resource waters include, but are not limited to, waterbodies that are recognized as:

(A) important because of protection through official action, such as:

- (i) federal or state law;
  - (ii) presidential or secretarial action;
  - (iii) international treaty; or
  - (iv) interstate compact;
- (B) having exceptional recreational significance;
- (C) having exceptional ecological significance;
- (D) having other special environmental, recreational, or ecological attributes; or
- (E) waters whose designation as outstanding national resource waters is reasonably necessary for the protection of other waters so designated.
- (64) "Outstanding state resource waters" means those waters designated as such by Indiana.
- (65) "Point source" has the meaning set forth in 327 IAC 5-1.5-40.
- (66) "Policy" means a statement of administrative practice or decision making guidelines to be followed or implemented to the maximum extent feasible with respect to an identified problematic situation but to be less than strictly enforceable in contrast to a standard or rule of law.
- (67) "Public water supply" means any wells, reservoirs, lakes, rivers, sources of supply, pumps, mains, pipes, facilities, and structures through which water is obtained, treated as may be required, and supplied through a water distribution system for sale to or consumption by the public for drinking, domestic, or other purposes, including state-owned facilities even though the water may not be sold to the public.
- (68) "Quantitative structure activity relationship" or "QSAR" or "structure activity relationship" or "SAR" refers to a mathematical relationship between a property (activity) of a chemical and a number of descriptors of the chemical. These descriptors are chemical or physical characteristics obtained experimentally or predicted from the structure of the chemical.
- (69) "Relative source contribution" or "RSC" means the factor (percentage) used in calculating a HNV or HNC to account for all sources of exposure to a contaminant. The RSC reflects the percent of total exposure that may be attributed to surface water through water intake and fish consumption.
- (70) "Risk" means the probability that a substance, when released to the environment, will cause an adverse effect in exposed humans or other living organisms.
- (71) "Risk assessment" means the analytical process used to determine the level of risk.
- (72) "Risk associated dose" or "RAD" refers to a dose of a known or presumed carcinogenic substance in milligrams per kilogram per day, which, over a lifetime of exposure, is estimated to be associated with a plausible upper bound incremental cancer risk equal to one (1) in one hundred thousand (100,000).
- (73) "Slope factor", also known as " $q_1^*$ ", means the incremental rate of cancer development calculated through use of a linearized multistage model or other appropriate model. It is expressed in milligrams per kilogram per day of exposure to the chemical in question.
- (74) "Species mean acute value" or "SMAV" means the geometric mean of the results of all acceptable flow-through acute toxicity tests (for which the concentrations of the test material were measured) with the most sensitive tested life stage of the species. For a species for which no such result is available for the most sensitive tested life stage, the SMAV is the geometric mean of the results of all acceptable acute toxicity tests with the most sensitive tested life stage.
- (75) "Species mean chronic value" or "SMCV" means the geometric mean of the results of all acceptable life-cycle and partial life-cycle toxicity tests with the species; for a species of fish for which no such result is available, the SMCV is the geometric mean of all acceptable early life-stage tests.
- (76) "Steady-state" means an equilibrium condition has been achieved in the body burden of a substance in an organism. Steady state is assumed when the rate of loss of a substance matches its rate of uptake.
- (77) "Stream design flow" means the stream flow that represents critical conditions, upstream from the source, for protection of aquatic life, human health, or wildlife.
- (78) "Subchronic effect" means an adverse effect, measured by assessing an acceptable endpoint, resulting from continual exposure for a period of time less than that deemed necessary for a chronic test.
- (79) "Surface waters of the state" or "surface water" means:
- (A) either:
    - (i) the accumulations of water, surface and underground, natural and artificial, public and private; or
    - (ii) a part of the accumulations of water; that are wholly or partially within, flow through, or border upon Indiana; and
  - (B) the term does not include:
    - (i) a private pond; or
    - (ii) an off-stream pond, reservoir, or facility built for reduction or control of pollution or cooling of water before discharge; unless the discharge from the pond, reservoir, or facility causes or threatens to cause water pollution.
- (80) "Threshold effect" means an effect of a substance for which there is a theoretical or empirically established dose or concentration below which the effect does not occur.

(81) "Tier I criteria" means numeric values derived by use of the Tier I procedures in sections 11 and 13 through 16 of this rule, that either have been adopted as numeric criteria into a water quality standard or are used to implement narrative water quality criteria.

(82) "Tier I wildlife criterion" means criterion used to denote the number derived from data meeting the Tier I minimum database requirements and will be protective of the two (2) classes of wildlife. The term is synonymous with GLWC, and the two (2) are used interchangeably.

(83) "Tier II values" means numeric values derived by use of the Tier II procedures in sections 12 through 16 of this rule, that are used to implement narrative water quality criteria.

(84) "Toxic substances" means substances that are or may become harmful to:

- (A) aquatic life;
- (B) humans;
- (C) other animals;
- (D) plants; or
- (E) food chains;

when present in sufficient concentrations or combinations. Toxic substances include, but are not limited to, those pollutants identified as toxic under Section 307(a)(1) of the Clean Water Act.

(85) "Tributaries of the Great Lakes system" means all waters of the Great Lakes system that are not open waters of Lake Michigan or connecting channels.

(86) "Trophic level" means a functional classification of taxa within a community that is based on feeding relationships, for example, aquatic green plants comprise the first trophic level and herbivores comprise the second.

(87) "Uncertainty factor" or "UF" means one (1) of several numeric factors used in operationally deriving criteria from experimental data to account for the quality or quantity of the available data.

(88) "Uptake" means acquisition of a substance from the environment by an organism as a result of any active or passive process.

(89) "Variance" means a deviation from a water quality standard.

(90) "Water use designations" means a use of the waters of the state as established by this rule, including, but not limited to, the following:

- (A) Industrial water supply.
- (B) Agricultural use.
- (C) Public water supply.
- (D) Full body contact.
- (E) Aquatic life.
- (F) Limited use.

(91) "Waters of the state" means:

(A) either:

(i) the accumulations of water, surface and underground, natural and artificial, or public and private; or

(ii) a part of the accumulations of water;

that are wholly or partially within, flow through, or border upon Indiana; and

(B) the term does not include:

(i) a private pond; or

(ii) an off-stream pond, reservoir, or facility built for reduction or control of pollution or cooling of water before discharge;

unless the discharge from the pond, reservoir, or facility causes or threatens to cause water pollution.

(92) "Well-balanced aquatic community" means an aquatic community that is:

(A) diverse in species composition;

(B) contains several different trophic levels; and

(C) is not composed mainly of pollution tolerant species.

(93) "Wildlife value" or "WV" means a value used to denote each representative species that results from using the equation presented in section 15 of this rule, the value obtained from averaging species values within a class, or any value derived from application of the site-specific procedure provided in section 16 of this rule. The WVs calculated for the representative species are used to calculate taxonomic class-specific WVs. The WV is the concentration of a substance which, if not exceeded, should better protect the taxon in question.

(94) "Zone of initial dilution" or "ZID" means the area of the receiving water directly after the end of the pipe where an instantaneous volume of water gives up to a one-to-one (1:1) dilution of the discharge.

*(Water Pollution Control Board; 327 IAC 2-1.5-2; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1363; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3376)*

### **327 IAC 2-1.5-3 Water quality goals**

**Authority:** IC 13-12-3-1; IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-4; IC 13-30-2-1

Sec. 3. The goal of the state is to restore and maintain the chemical, physical, and biological integrity of the waters of the state within the Great Lakes system. In furtherance of this primary goal, it is the public policy of the state that the discharge of:

- (1) toxic substances in toxic amounts be prohibited; and
- (2) persistent and bioaccumulating toxic substances be reduced or eliminated.

*(Water Pollution Control Board; 327 IAC 2-1.5-3; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1368; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3376)*

**327 IAC 2-1.5-4 Antidegradation standard****Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3**Affected:** IC 13-18-4; IC 13-30-2-1

Sec. 4. (a) For all surface waters of the state within the Great Lakes system, existing instream water uses and the level of water quality necessary to protect existing uses shall be maintained and protected. Where designated uses of the waterbody are impaired, there shall be no lowering of the water quality with respect to the pollutant or pollutants that are causing the impairment.

(b) Any surface water of the state within the Great Lakes system whose existing quality for any parameter exceeds the criteria established within this rule shall be considered high quality for that parameter consistent with the definition of high quality water found in this rule; and that quality shall be maintained and protected unless the commissioner finds, after full satisfaction of intergovernmental coordination and public participation provisions under 327 IAC 5-2-11.3, that allowing lower water quality is necessary and accommodates [*sic.*] important economic or social development in the area in which the waters are located. In allowing such degradation, the commissioner shall assure water quality adequate to protect existing uses fully. Further, the commissioner shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control. The commissioner shall utilize the antidegradation implementation procedures under 327 IAC 5-2-11.3 in determining if a significant lowering of water quality will be allowed.

(c) From the effective date of this section until the expiration date of 327 IAC 5-2-11.7, all high quality waters designated under section 19(b) of this rule as an outstanding state resource water shall be maintained and protected in their present high quality without degradation. Upon expiration of 327 IAC 5-2-11.7, all high quality waters designated under section 19(b) of this rule as an outstanding state resource water shall be maintained in their present high quality without degradation.

(d) High quality waters designated as an outstanding national resource water (such as waters of national and state parks and wildlife refuges and waters of exceptional recreational or ecological significance) shall be maintained and protected in their present high quality without degradation.

(e) In those cases where the potential lowering of water quality is associated with a thermal discharge, the decision to allow such degradation shall be consistent with Section 316 of the Clean Water Act and 327 IAC 5-7. (*Water Pollution Control Board; 327 IAC 2-1.5-4;*

*filed Jan 14, 1997, 12:00 p.m.: 20 IR 1369; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3376)*

**327 IAC 2-1.5-5 Surface water use designations; multiple uses****Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3**Affected:** IC 13-18-4; IC 13-30-2-1

Sec. 5. (a) The following water uses are designated by the board:

(1) All surface waters of the state within the Great Lakes system are designated for full-body contact recreation.

(2) All surface waters, except as described in subdivision (7), shall be capable of supporting a well-balanced, warm water aquatic community.

(3) Where natural temperatures will permit, surface waters shall be capable of supporting put-and-take trout fishing. All waters capable of supporting the natural reproduction of trout shall be so maintained. The following waters are designated as salmonid waters and shall be capable of supporting a salmonid fishery:

(A) Trail Creek and its tributaries downstream to Lake Michigan.

(B) East Branch of the Little Calumet River and its tributaries downstream to Lake Michigan via Burns Ditch.

(C) Salt Creek above its confluence with the Little Calumet River.

(D) Kintzele Ditch (Black Ditch) from Beverly Drive downstream to Lake Michigan.

(E) The Galena River and its tributaries in LaPorte County.

(F) The St. Joseph River and its tributaries in St. Joseph County from the Twin Branch Dam in Mishawaka downstream to the Indiana/Michigan state line.

(G) The Indiana portion of the open waters of Lake Michigan.

(H) Those waters designated by the Indiana department of natural resources for put-and-take trout fishing.

(4) All surface waters used for public water supply are designated as a public water supply. This use designation and its corresponding water quality criteria are not to be construed as imposing a user restriction on those exercising or desiring to exercise the use.

(5) All surface waters used for industrial water supply are designated as an industrial water supply. This use designation and its corresponding water quality criteria are not to be construed as imposing a user restriction on those exercising or desiring to exercise the use.

(6) All surface waters used for agricultural purposes are designated as an agricultural use water.

(7) Limited use waters are designated under section 19(a) of this rule pursuant to section 18 of this rule. All waters that are designated as a limited use water under section 19(a) of this rule must be evaluated for restoration and upgrading at each triennial review of this rule.

(8) Outstanding state resource waters are designated under section 19(b) of this rule pursuant to section 18 of this rule.

(b) Where multiple uses have been designated for a body of water, the most protective of all simultaneously applicable standards will apply. (*Water Pollution Control Board; 327 IAC 2-1.5-5; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1369*)

### 327 IAC 2-1.5-6 Bioaccumulative chemicals of concern

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-4; IC 13-30-2-1

Sec. 6. (a) A bioaccumulative chemical of concern (BCC) is any chemical that meets the following requirements:

- (1) Has the potential to cause adverse effects.
- (2) Has a half-life of at least eight (8) weeks in the water column, sediment, and biota.
- (3) Upon entering the surface waters, by itself or as its toxic transformation product, accumulates in aquatic organisms by a human health bioaccumulation factor (BAF) greater than one thousand (1,000) after considering metabolism and other physicochemical properties that might enhance or inhibit bioaccumulation, in accordance with the procedure in section 13 of this rule. The minimum BAF information needed to define a chemical as a BCC is either of the following:

(A) For an organic chemical, either a field-measured BAF or a BAF derived using the BSAF methodology.

(B) For an inorganic chemical, including an organometal, either a field-measured BAF or a laboratory-measured BCF.

(b) Pollutants that are BCCs include, but are not limited to, the following:

Table 6-1

Bioaccumulative Chemicals of Concern

CAS Num-	Substance
57749	Chlordane
72548	4,4'-DDD; p,p'-DDD; 4,4'-TDE; p,p'-TDE

72559	4,4'-DDE; p,p'-DDE
50293	4,4'-DDT; p,p'-DDT
60571	Dieldrin
118741	Hexachlorobenzene
87683	Hexachlorobutadiene; hexachloro-1,3-butadiene
608731	Hexachlorocyclohexanes; BHCs
319846	alpha-Hexachlorocyclohexane; alpha-BHC
319857	beta-Hexachlorocyclohexane; beta-BHC
319868	delta-Hexachlorocyclohexane; delta-BHC
58899	Lindane; gamma-hexachlorocyclohexane; gamma-BHC
7439976	Mercury
2385855	Mirex
29082744	Octachlorostyrene
1336363	PCBs; polychlorinated biphenyls
608935	Pentachlorobenzene
39801144	Photomirex
1746016	2,3,7,8-TCDD; dioxin
634662	1,2,3,4-Tetrachlorobenzene
95943	1,2,4,5-Tetrachlorobenzene
8001352	Toxaphene

(c) The substances established in this subsection shall be treated as BCCs under this rule and under 327 IAC 5-2-11.3 through 327 IAC 5-2-11.6. If additional data becomes available (such as a field-measured BAF) for a substance established in this subsection that conclusively demonstrates that the substance should not be treated as a BCC, the commissioner may determine that it is not necessary to treat the substance as a BCC. Substances treated as BCCs include the following:

Table 6-2

Substances Treated as Bioaccumulative Chemicals of Concern

CAS Number	Substance
309002	Aldrin
84742	Dibutyl phthalate
72208	Endrin
76448	Heptachlor

(*Water Pollution Control Board; 327 IAC 2-1.5-6; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1370; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3376*)

### 327 IAC 2-1.5-7 Mixing zone guidelines

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-4

Sec. 7. (a) All surface water quality criteria in this rule, except as provided in section 8(b)(1) of this rule, are to

be applied at a point outside of the mixing zone as determined under 327 IAC 5-2-11.4 to allow for a reasonable admixture of waste effluents with the receiving waters.

(b) The commissioner may deny any mixing zone for a discharge or for certain substances in a discharge in accordance with 327 IAC 5-2-11.4(b)(5) and 327 IAC 5-2-11.4(b)(6). (*Water Pollution Control Board; 327 IAC 2-1.5-7; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1370*)

### **327 IAC 2-1.5-8 Minimum surface water quality criteria**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-4; IC 13-30-2-1; IC 14-22-9

Sec. 8. (a) All surface water quality criteria in this section, except those provided in subsection (b)(1), will cease to be applicable when the stream flows are less than the applicable stream design flow for the particular criterion as determined under 327 IAC 5-2-11.4.

(b) The following are minimum water quality conditions:

(1) All waters within the Great Lakes system at all times and at all places, including waters within the mixing zone, shall meet the minimum conditions of being free from substances, materials, floating debris, oil, or scum attributable to municipal, industrial, agricultural, and other land use practices, or other discharges that do any of the following:

(A) Will settle to form putrescent or otherwise objectionable deposits.

(B) Are in amounts sufficient to be unsightly or deleterious.

(C) Produce color, visible oil sheen, odor, or other conditions in such degree as to create a nuisance.

(D) Are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such degree as to create a nuisance, be unsightly, or otherwise impair the designated uses.

(E) Are in amounts sufficient to be acutely toxic to, or to otherwise severely injure or kill aquatic life, other animals, plants, or humans. To assure protection of aquatic life, the waters shall meet the following requirements:

(i) Concentrations of toxic substances shall not exceed the CMC outside the zone of initial dilution or the final acute value (FAV = 2 (CMC)) in the undiluted discharge unless, for a discharge to a receiving stream or Lake Michigan, an alternate mixing zone demonstration is conducted and approved in accordance with 327 IAC 5-2-11.4(b)(4), in which case, the CMC shall be met outside the discharge-induced mixing zone:

(AA) for certain substances, a CMC is established and set forth in subdivision (3), Table 8-1, which table incorporates subdivision (4), Table 8-2;

(BB) for substances for which a CMC is not specified in subdivision (3), Table 8-1, a CMC shall be calculated by the commissioner using the procedures in section 11 of this rule, or if the minimum data requirements to calculate a CMC are not met, a secondary maximum concentration (SMC) shall be calculated using the procedures in section 12 of this rule; and

(CC) the CMC or SMC determined under subitem (AA) or (BB) may be modified on a site-specific basis to reflect local conditions in accordance with section 16 of this rule.

(ii) A discharge shall not cause acute toxicity, as measured by whole effluent toxicity tests, at any point in the waterbody. Compliance with this criterion shall be demonstrated if a discharge does not exceed 1.0 TU<sub>a</sub> in the undiluted discharge. For a discharge into a receiving stream or Lake Michigan, for which an alternate mixing zone demonstration is conducted and approved in accordance with 327 IAC 5-2-11.4(b)(4), compliance with this criterion shall be demonstrated if 0.3 TU<sub>a</sub> is not exceeded outside the discharge-induced mixing zone.

This clause shall not apply to the chemical control of plants and animals when that control is performed in compliance with approval conditions specified by the Indiana department of natural resources as provided by IC 14-22-9.

(2) At all times, all waters outside of the applicable mixing zones determined in accordance with 327 IAC 5-2-11.4(c) through 327 IAC 5-2-11.4(f) shall be free of substances in concentrations, that, on the basis of available scientific data, are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants. To assure protection against the adverse effects identified in this subdivision, a toxic substance or pollutant shall not be present in such waters in concentrations that exceed the most stringent of the following:

(A) A criterion continuous concentration (CCC) or a secondary continuous concentration (SCC) to protect aquatic life from chronic toxic effects as follows:

(i) For certain substances, a CCC is established and set forth in subdivision (3), Table 8-1 (which table incorporates subdivision (4), Table 8-2).

(ii) For substances for which a CCC is not speci-

fied in subdivision (3), Table 8-1, a CCC shall be calculated by the commissioner using the procedures in section 11 of this rule, or if the minimum data requirements to calculate a CCC are not met, a SCC shall be calculated using the procedures in section 12 of this rule.

(iii) The CCC or SCC determined under item (i) or (ii) may be modified on a site-specific basis to reflect local conditions in accordance with section 16 of this rule.

(iv) To assure protection of aquatic life, a discharge shall not cause chronic toxicity, as measured by whole effluent toxicity tests, outside of the applicable mixing zone. Compliance with this criterion shall be demonstrated if the waterbody does not exceed 1.0 TU<sub>c</sub> at the edge of the mixing zone.

(B) A human noncancer criterion or value (HNC or HNV) to protect human health from adverse noncancer effects that may result from the consumption of aquatic organisms or drinking water from the waterbody determined as follows:

(i) For certain substances, an HNC is established and set forth in subdivision (5), Table 8-3.

(ii) For substances for which an HNC is not specified in subdivision (5), Table 8-3, an HNC shall be calculated by the commissioner using the procedures in section 14 of this rule, or if the minimum data requirements to calculate a HNC are not met, an HNV shall be calculated using the procedures in section 14 of this rule.

(iii) The HNC or HNV determined under item (i) or (ii) may be modified on a site-specific basis to reflect local conditions in accordance with section 16 of this rule.

(iv) The HNC-nondrinking or HNV-nondrinking for a substance shall apply to all waters outside the applicable mixing zone for a discharge of that substance. The HNC-drinking or HNV-drinking shall apply at the point of the public drinking water intake.

(C) For carcinogenic substances, a human cancer criterion or value (HCC or HCV) to protect human

health from unacceptable cancer risk of greater than one (1) additional occurrence of cancer per one hundred thousand (100,000) population as follows:

(i) For certain substances, an HCC is established and set forth in subdivision (5), Table 8-3.

(ii) For substances for which an HCC is not specified in subdivision (5), Table 8-3, an HCC shall be calculated by the commissioner using the procedures in section 14 of this rule or if the minimum data requirements to calculate a HCC are not met, an HCV shall be calculated using the procedures in section 14 of this rule.

(iii) The HCC or HCV determined under item (i) or (ii) may be modified on a site-specific basis to reflect local conditions in accordance with section 16 of this rule.

(iv) The HCC-nondrinking or HCV-nondrinking for a substance shall apply to all waters outside the applicable mixing zone for a discharge of that substance. The HCC-drinking or HCV-drinking shall apply at the point of the public drinking water intake.

(D) A wildlife criterion (WC) to protect avian and mammalian wildlife populations from adverse effects which may result from the consumption of aquatic organisms or water from the waterbody as follows:

(i) For certain substances, a WC is established and set forth in Table 8-4.

(ii) For substances for which a WC is not specified in subdivision (6), Table 8-4, a WC shall be calculated by the commissioner using the procedures in section 15 of this rule or if the minimum data requirements to calculate a WC are not met, a wildlife value (WV) may be calculated using the procedures in section 15 of this rule.

(iii) The WC or WV determined under item (i) or (ii) may be modified on a site-specific basis to reflect local conditions in accordance with section 16 of this rule.

(3) The following establishes water quality criteria for protection of aquatic life:

Table 8-1  
Water Quality Criteria for Protection of Aquatic Life<sup>[1]</sup>

CAS Number	Substances	CMC (Maximum) (µg/l)	CMC Conversion Factors	CCC (4-Day Average) (µg/l)	CCC Conversion Factors
Metals (dissolved) <sup>[2]</sup>					
7440382	Arsenic (III)	339.8	1.000	147.9	1.000
7440439	Cadmium	$e^{(1.128 [\ln(\text{hardness})]-3.6867)}$	0.944	$e^{(0.7852 [\ln(\text{hardness})]-2.715)}$	0.909

7440473	Chromium (III)	$e^{(0.819 [\ln(\text{hardness}))+3.7256]}$	0.316	$e^{(0.819 [\ln(\text{hardness}))+0.6848]}$	0.860
7440473	Chromium (VI)	16.02	0.982	10.98	0.962
7440508	Copper	$e^{(0.9422 [\ln(\text{hardness}))-1.700]}$	0.960	$e^{(0.8545 [\ln(\text{hardness}))-1.702]}$	0.960
7439976	Mercury	1.694	0.850	0.9081	0.850
7440020	Nickel	$e^{(0.846 [\ln(\text{hardness}))+2.255]}$	0.998	$e^{(0.846 [\ln(\text{hardness}))+0.0584]}$	0.997
7782492	Selenium			5	0.922
7440666	Zinc	$e^{(0.8473 [\ln(\text{hardness}))+0.884]}$	0.978	$e^{(0.8473 [\ln(\text{hardness}))+0.884]}$	0.986
Organics (total)					
60571	Dieldrin	0.24	NA	0.056	NA
72208	Endrin	0.086	NA	0.036	NA
56382	Parathion	0.065	NA	0.013	NA
87865	Pentachlorophenol <sup>[3]</sup>	$e^{(1.005[\text{pH}]-4.869)}$	NA	$e^{(1.005[\text{pH}]-5.134)}$	NA
Other Substances					
	Chlorides (total)	860000	NA	230000	NA
	Chlorine (total residual)	19	NA	11	NA
	Chlorine (intermittent, total residual) <sup>[4]</sup>	200	NA		NA
57125	Cyanide (free)	22	NA	5.2	NA

<sup>[1]</sup> Aquatic organisms should not be affected unacceptably if the four (4) day average concentration of any substance in this table does not exceed the CCC more than once every three (3) years on the average and if the one (1) hour average concentration does not exceed the CMC more than once every three (3) years on the average, except possibly where a commercially or recreationally important species is very sensitive.

<sup>[2]</sup> The CMC and CCC columns of this table contain total recoverable metals criteria (numeric and hardness-based). The criterion for the dissolved metal is calculated by multiplying the appropriate conversion factor by the CMC or CCC. This dissolved CMC or CCC shall be rounded to two (2) significant digits, except when the criteria are used as intermediate values in a calculation, such as in the calculation of water quality-based effluent limits (WQBELs).

<sup>[3]</sup> A CMC and CCC calculated for pentachlorophenol using the equation in this table shall be rounded to two (2) significant digits, except when the criteria are used as intermediate values in a calculation, such as in the calculation of water quality-based effluent limits (WQBELs).

<sup>[4]</sup> To be considered an intermittent discharge, total residual chlorine shall not be detected in the discharge for a period of more than forty (40) minutes in duration, and such periods shall be separated by at least five (5) hours.

(4) The following establishes dissolved criterion maximum concentrations (CMCs) and criterion continuous concentrations (CCCs) for certain metals at

selected hardness values calculated from the equations and conversions factors in subdivision (3), Table 8-1:

Table 8-2  
Metals Concentrations in Micrograms Per Liter; Hardness in Milligrams Per Liter CaCO<sub>3</sub>

Hardness	Cadmium		Chromium (III)		Copper		Nickel		Zinc	
	CMC	CCC	CMC	CCC	CMC	CCC	CMC	CCC	CMC	CCC
50	2.0	1.3	320	42	7.0	5.0	260	29	65	66
100	4.3	2.2	570	74	13	9.0	470	52	120	120
150	6.7	3.1	790	100	20	13	660	73	170	170
200	9.3	3.9	1,000	130	26	16	840	93	210	210
250	12	4.6	1,200	160	32	20	1,000	110	250	260
300	15	5.3	1,400	180	38	23	1,200	130	300	300
350	18	6.0	1,600	210	44	26	1,400	150	340	340
400	20	6.6	1,800	230	50	29	1,500	170	380	380
450	23	7.3	2,000	250	55	32	1,700	190	420	420
500	26	7.9	2,100	280	61	35	1,800	200	460	460

(5) The following establishes water quality criteria for protection of human health:

Table 8-3  
Water Quality Criteria for Protection of Human Health<sup>[1]</sup>

CAS Number	Substances	Human Noncancer Criteria (HNC)		Human Cancer Criteria (HCC)	
		Drinking (µg/l)	Nondrinking (µg/l)	Drinking (µg/l)	Nondrinking (µg/l)
Metals (total recoverable)					
7439976	Mercury (including methyl mercury)	0.0018	0.0018		
Organics (total)					
71432	Benzene	19	510	12	310
57749	Chlordane	0.0014	0.0014	0.00025	0.00025
108907	Chlorobenzene	470	3,200		
50293	DDT	0.002	0.002	0.00015	0.00015
60571	Dieldrin	0.00041	0.00041	$6.5 \times 10^{-6}$	$6.5 \times 10^{-6}$
105679	2,4-dimethylphenol	450	8,700		
51285	2,4-dinitrophenol	55	2,800		
118741	Hexachlorobenzene	0.046	0.046	0.00045	0.00045
67721	Hexachloroethane	6	7.6	5.3	6.7
58899	Lindane	0.47	0.5		
75092	Methylene chloride	1,600	90,000	47	2600
1336363	PCBs (class)			$6.8 \times 10^{-6}$	$6.8 \times 10^{-6}$
1746016	2, 3, 7, 8-TCDD (dioxin)	$6.7 \times 10^{-8}$	$6.7 \times 10^{-8}$	$8.6 \times 10^{-9}$	$8.6 \times 10^{-9}$
108883	Toluene	5,600	51,000		
8001352	Toxaphene			$6.8 \times 10^{-5}$	$6.8 \times 10^{-5}$
79016	Trichloroethylene			29	370
Other Substances					
57125	Cyanide (total)	600	48,000		

<sup>[1]</sup>The HNC and HCC are thirty (30) day average criteria.

(6) The following establishes water quality criteria for protection of wildlife:

Table 8-4

Water Quality Criteria for Protection of Wildlife<sup>[1]</sup>

CAS Number	Substances	Wildlife Criteria (µg/l)
Metals (total recoverable)		
7439976	Mercury (including methylmercury)	0.0013
Organics (total)		
50293	DDT and metabolites	$1.1 \times 10^{-5}$
1336363	PCBs (class)	$1.2 \times 10^{-4}$
1746016	2, 3, 7, 8-TCDD (dioxin)	$3.1 \times 10^{-9}$

<sup>[1]</sup>The WC are thirty (30) day average criteria.

(c) This subsection establishes minimum water quality criteria for aquatic life. In addition to the criteria in subsection (b), this subsection ensures conditions necessary for the maintenance of a well-balanced aquatic community. The following conditions are applicable at

any point in the waters outside of the applicable mixing zone, as determined in accordance with section 7 of this rule and 327 IAC 5-2-11.4(b):

(1) There shall be no substances which impart unpalatable flavor to food fish or result in offensive odors in the vicinity of the water.

(2) No pH values below six (6.0) nor above nine (9.0), except daily fluctuations that exceed pH 9.0 and are correlated with photosynthetic activity shall be permitted.

(3) Concentrations of dissolved oxygen shall average at least five (5.0) milligrams per liter per calendar day and shall not be less than four (4.0) milligrams per liter at any time.

(4) The following are conditions for temperature:

(A) No abnormal temperature changes that may adversely affect aquatic life unless caused by natural conditions.

(B) The normal daily and seasonal temperature fluctuations that existed before the addition of heat

due to other than natural causes shall be maintained. (C) Water temperatures shall not exceed the maximum limits as established in this clause during more than one percent (1%) of the hours in the twelve (12) month period ending with any month. At no time shall the water temperature at such locations exceed the maximum limits in the following table by more than three degrees Fahrenheit (3°F) (one and seven-tenths degrees Celsius (1.7°C)):

Table 8-5  
Maximum Instream Water Temperatures

Month	St. Joseph River Tributary to Lake Michigan Upstream of the Twin Branch Dam	All Other Indiana Streams in the Great Lakes System
	°F(°C)	°F(°C)
January	50 (10)	50 (10)
February	50 (10)	50 (10)
March	55 (12.8)	60 (15.6)
April	65 (18.3)	70 (21.1)
May	75 (23.9)	80 (26.7)
June	85 (29.4)	90 (32.2)
July	85 (29.4)	90 (32.2)
August	85 (29.4)	90 (32.2)
September	84 (29.4)	90 (32.2)
October	70 (21.1)	78 (25.5)
November	60 (15.6)	70 (21.1)
December	50 (10)	57 (14.0)

(D) The following temperature criteria shall apply to Lake Michigan:

(i) In all receiving waters, the points of measurement normally shall be in the first meter below the surface at such depths necessary to avoid thin layer surface warming due to extreme ambient air temperatures, but where required to determine the true distribution of heated wastes and natural variations in water temperatures, measurements shall be at a greater depth and at several depths as a thermal profile.

(ii) There shall be no abnormal temperature changes so as to be injurious to fish, wildlife, or other aquatic life, or the growth or propagation thereof. In addition, plume interaction with the bottom shall be minimized and shall not injuriously affect fish, shellfish, and wildlife spawning or nursery areas.

(iii) The normal daily and seasonal temperature fluctuations that existed before the addition of heat shall be maintained.

(iv) At any time and at a maximum distance of a one thousand (1,000) foot arc inscribed from a fixed point adjacent to the discharge or as agreed

upon by the commissioner and federal regulatory agencies:

(AA) the receiving water temperature shall not be more than three degrees Fahrenheit (3°F) (one and seven-tenths degrees Celsius (1.7°C)) above the existing natural water temperature; and (BB) thermal discharges to Lake Michigan shall comply with the following maximum temperature requirements:

(aa) Thermal discharges to Lake Michigan shall not raise the maximum temperature in the receiving water above those listed in the following table, except to the extent the permittee adequately demonstrates that the exceedance is caused by the water temperature of the intake water:

Table 8-6  
Maximum Water Temperatures

Month	°F(°C)
January	45 (7)
February	45 (7)
March	45 (7)
April	55 (13)
May	60 (16)
June	70 (21)
July	80 (27)
August	80 (27)
September	80 (27)
October	65 (18)
November	60 (16)
December	50 (10)

(bb) If the permittee demonstrates that the intake water temperature is within three degrees Fahrenheit (3°F) below an applicable maximum temperature under subitem (aa), Table 8-6, then no more than a three degree Fahrenheit (3°F) exceedance of the maximum water temperature shall be permitted.

(v) The facilities described as follows that discharge into the open waters of Lake Michigan shall be limited to the amount essential for blowdown in the operation of a closed cycle cooling facility:

(AA) All facilities that have new waste heat discharges exceeding a daily average of five-tenths (0.5) billion British thermal units per hour. As used in this item, "new waste heat discharge" means a discharge that had not begun operations as of February 11, 1972.

(BB) All facilities with existing waste heat discharges that increase the quantity of waste heat discharged by more than a daily average of five-tenths (0.5) billion British thermal units per hour.

(vi) Water intakes shall be designed and located to minimize entrainment and damage to desirable organisms. Requirements may vary depending upon local conditions but, in general, intakes shall have minimum water velocity and shall not be located in spawning or nursery areas of important fishes. Water velocity at screens and other exclusion devices shall also be at a minimum.

(vii) Discharges other than those now in existence shall be such that the thermal plumes do not overlap or intersect.

(viii) Facilities discharging more than a daily average of five-tenths (0.5) billion British thermal units of waste heat shall continuously record intake and discharge temperature and flow and make those records available to the public or regulatory agencies upon request.

(5) The following criteria shall be used to regulate ammonia:

(A) Concentrations of total ammonia (as N) shall not exceed the CMC outside the zone of initial dilution or the final acute value (FAV = 2 (CMC)) in the undiluted discharge unless, for a discharge to a receiving stream or Lake Michigan, an alternate mixing zone demonstration is conducted and approved in accordance with 327 IAC 5-2-11.4(b)(4), in which case, the CMC shall be met outside the discharge-induced mixing zone. The CMC of total ammonia (as N) is determined using the following equation:

$$CMC = \frac{(0.822)(0.52)(10^{(pk_a - pH)} + 1)}{(FT)(FPH)(2)}$$

Where: FT =  $10^{0.03(20-T)}$

FPH = 1; when:  $8 \leq pH \leq 9$ ; or

$$\frac{1 + 10^{(7.4 - pH)}}{1.25}; \text{ when: } 6.5 \leq pH \leq 8$$

$$pk_a = 0.09018 + \frac{2729}{T + 273.2}$$

T = Temperature in °C

(B) The criterion continuous concentration (CCC) of total ammonia (as N) is determined using the following equation:

$$CCC = \frac{(0.822)(0.80)(10^{(pk_a - pH)} + 1)}{(FT)(FPH)(RATIO)}$$

Where: FT =  $10^{0.03(20-T)}$

FPH = 1; when:  $8 \leq pH \leq 9$ ; or

$$\frac{1 + 10^{(7.4 - pH)}}{1.25}; \text{ when: } 6.5 \leq pH \leq 8$$

RATIO = 13.5; when:  $7.7 \leq pH \leq 9$ ; or

$$\frac{(20)(10^{(7.7 - pH)})}{1 + 10^{(7.4 - pH)}}; \text{ when: } 6.5 \leq pH \leq 7.7$$

$$pk_a = 0.09018 + \frac{2729}{T + 273.2}$$

T = Temperature in °C

(C) The use of the equations in clause (A) results in the following CMCs for total ammonia (as N) at different temperatures and pHs:

Table 8-7  
Criterion Maximum Concentrations for Total Ammonia (as N)  
Temperature (°C)

pH	0	5	10	15	20	25	30
6.5	28.48	26.61	25.23	24.26	23.64	23.32	23.29
6.6	27.68	25.87	24.53	23.59	22.98	22.68	22.65
6.7	26.74	24.99	23.69	22.78	22.20	21.92	21.90
6.8	25.64	23.96	22.72	21.85	21.30	21.03	21.01
6.9	24.37	22.78	21.60	20.78	20.26	20.01	20.00
7.0	22.95	21.45	20.35	19.58	19.09	18.86	18.86
7.1	21.38	19.98	18.96	18.24	17.80	17.59	17.60
7.2	19.68	18.40	17.46	16.81	16.40	16.22	16.24
7.3	17.90	16.73	15.88	15.29	14.93	14.78	14.81
7.4	16.06	15.02	14.26	13.74	13.42	13.30	13.35
7.5	14.23	13.31	12.64	12.19	11.92	11.81	11.88
7.6	12.44	11.65	11.07	10.67	10.45	10.37	10.45
7.7	10.75	10.06	9.569	9.238	9.052	9.003	9.088
7.8	9.177	8.597	8.181	7.907	7.760	7.734	7.830
7.9	7.753	7.268	6.924	6.701	6.589	6.584	6.689
8.0	6.496	6.095	5.813	5.636	5.555	5.569	5.683
8.1	5.171	4.857	4.639	4.508	4.457	4.486	4.602
8.2	4.119	3.873	3.707	3.612	3.584	3.625	3.743
8.3	3.283	3.092	2.967	2.900	2.891	2.942	3.061
8.4	2.618	2.472	2.379	2.335	2.340	2.399	2.519
8.5	2.091	1.979	1.911	1.886	1.903	1.968	2.089
8.6	1.672	1.588	1.540	1.529	1.555	1.625	1.747
8.7	1.339	1.277	1.246	1.246	1.279	1.353	1.475
8.8	1.075	1.030	1.011	1.021	1.060	1.137	1.260
8.9	0.8647	0.8336	0.8254	0.8418	0.8862	0.9650	1.088
9.0	0.6979	0.6777	0.6777	0.6998	0.7479	0.8286	0.9521

(D) The use of the equations in clause (B) results in the following CCCs for total ammonia (as N) at different temperatures and pHs:

Table 8-8  
Criterion Continuous Concentrations for Total Ammonia (as N)  
Temperature (°C)

pH	0	5	10	15	20	25	30
6.5	2.473	2.310	2.191	2.106	2.052	2.025	2.022
6.6	2.473	2.311	2.191	2.107	2.053	2.026	2.023
6.7	2.473	2.311	2.191	2.107	2.054	2.027	2.025
6.8	2.473	2.311	2.192	2.108	2.055	2.028	2.027
6.9	2.474	2.312	2.193	2.109	2.056	2.030	2.030
7.0	2.474	2.312	2.193	2.110	2.058	2.033	2.033
7.1	2.475	2.313	2.195	2.112	2.060	2.036	2.037
7.2	2.475	2.314	2.196	2.114	2.063	2.040	2.043
7.3	2.476	2.315	2.198	2.116	2.066	2.044	2.050
7.4	2.477	2.317	2.200	2.119	2.070	2.050	2.058
7.5	2.478	2.319	2.202	2.123	2.075	2.058	2.069
7.6	2.480	2.321	2.206	2.128	2.082	2.067	2.082

7.7	2.450	2.294	2.181	2.106	2.063	2.052	2.071
7.8	2.092	1.959	1.865	1.802	1.769	1.763	1.785
7.9	1.767	1.657	1.578	1.527	1.502	1.501	1.525
8.0	1.481	1.389	1.325	1.285	1.266	1.269	1.295
8.1	1.179	1.107	1.057	1.027	1.016	1.022	1.049
8.2	0.9387	0.8828	0.8450	0.8232	0.8169	0.8263	0.8531
8.3	0.7481	0.7048	0.6762	0.6610	0.6589	0.6705	0.6976
8.4	0.5968	0.5634	0.5421	0.5321	0.5334	0.5468	0.5741
8.5	0.4766	0.4511	0.4357	0.4298	0.4337	0.4485	0.4760
8.6	0.3811	0.3619	0.3511	0.3485	0.3545	0.3704	0.3981
8.7	0.3052	0.2910	0.2839	0.2839	0.2916	0.3083	0.3362
8.8	0.2450	0.2347	0.2305	0.2326	0.2417	0.2591	0.2871
8.9	0.1971	0.1900	0.1881	0.1919	0.2020	0.2199	0.2480
9.0	0.1591	0.1545	0.1545	0.1595	0.1705	0.1889	0.2170

(d) This subsection establishes water quality for cold water fish. The waters listed in section 5(a)(2) of this rule are designated as salmonid waters and shall be protected for cold water fish. In addition to subsections (b) and (c), the following criteria are established to ensure conditions necessary for the maintenance of a well-balanced, cold water fish community and are applicable at any point in the waters outside of the applicable mixing zone:

(1) Dissolved oxygen concentrations shall not be less than six (6.0) milligrams per liter at any time and shall not be less than seven (7.0) milligrams per liter in areas where spawning occurs during the spawning season and in areas used for imprinting during the time salmonids are being imprinted. Dissolved oxygen concentrations in the open waters of Lake Michigan shall not be less than seven (7.0) milligrams per liter at any time.

(2) The maximum temperature rise above natural shall not exceed two degrees Fahrenheit (2 °F) (one and one-tenth degree Celsius (1.1 °C)) at any time or place nor, unless due to natural causes, shall the temperature exceed the following:

(A) Seventy degrees Fahrenheit (70 °F) (twenty-one and one-tenth degrees Celsius (21.1 °C)) at any time.

(B) Sixty-five degrees Fahrenheit (65 °F) (eighteen and three-tenths degrees Celsius (18.3 °C)) during spawning or imprinting periods.

(e) This subsection establishes bacteriological quality for recreational uses as follows:

(1) In addition to subsection (b), the criteria in this subsection shall be used:

(A) to evaluate waters for full body contact recreational uses;

(B) to establish wastewater treatment requirements; and

(C) to establish effluent limits during the recreational season, which is defined as the months of April through October, inclusive.

(2) E. coli bacteria, using membrane filter (MF) count, shall not exceed one hundred twenty-five (125) per one hundred (100) milliliters as a geometric mean based on not less than five (5) samples equally spaced over a thirty (30) day period nor exceed two hundred thirty-

five (235) per one hundred (100) milliliters in any one (1) sample in a thirty (30) day period.

(f) This subsection establishes surface water quality for public water supplies. In addition to subsection (b), the following standards are established to protect the surface water quality at the point at which water is withdrawn for treatment for public supply:

(1) The coliform bacteria group shall not exceed the following:

(A) Five thousand (5,000) per one hundred (100) milliliters as a monthly average value (either MPN or MF count).

(B) Five thousand (5,000) per one hundred (100) milliliters in more than twenty percent (20%) of the samples examined during any month.

(C) Twenty thousand (20,000) per one hundred (100) milliliters in more than five percent (5%) of the samples examined during any month.

(2) Taste and odor producing substances, other than those naturally occurring, shall not interfere with the production of a finished water by conventional treatment consisting of coagulation, sedimentation, filtration, and disinfection.

(3) The concentrations of either chlorides or sulfates shall not exceed two hundred fifty (250) milligrams per liter unless due to naturally occurring sources.

(4) Surface waters shall be considered acceptable for public supplies if radium-226 and strontium-90 are present in amounts not exceeding three (3) and ten (10) picocuries per liter, respectively. In the known absence of strontium-90 and alpha emitters, the water supply is acceptable when the gross beta concentrations do not exceed one thousand (1,000) picocuries per liter.

(5) The combined concentration of nitrate-N and nitrite-N shall not exceed ten (10) milligrams per liter, and the concentration of nitrite-N shall not exceed one (1) milligram per liter.

(6) Chemical constituents in the waters shall not be present in such levels as to prevent, after conventional treatment, meeting the drinking water standards contained in 327 IAC 8-2, due to other than natural causes.

(g) This subsection establishes water quality for industrial water supply. In addition to subsection (b), the standard to ensure protection of water quality at the point at which water is withdrawn for use (either with or without treatment) for industrial cooling and processing is that, other than from naturally occurring sources, the dissolved solids shall not exceed seven hundred fifty (750) milligrams per liter at any time. A specific conductance of one thousand two hundred (1,200) micromhos per centimeters (at twenty-five degrees Celsius (25 °C)) may be considered equivalent to a dissolved solids concentration of seven hundred fifty (750) milligrams per liter.

(h) This subsection establishes water quality for agricultural uses. The standards to ensure water quality conditions necessary for agricultural use are the same as those in subsection (b).

(i) This subsection establishes water quality for limited uses. The quality of waters designated for limited uses under section 19(a) of this rule shall, at a minimum, meet the following criteria:

- (1) The criteria contained in subsection (b).
- (2) The criteria contained in subsection (e).
- (3) The criteria contained in subsection (g).
- (4) The waters must be aerobic at all times.
- (5) Notwithstanding subdivisions (1) through (4), the quality of a limited use stream at the point where it becomes physically or chemically capable of supporting a higher use or at its interface with a higher use water segment shall meet the criteria that are applicable to the higher use water.

(j) Additional requirements for the open waters of Lake Michigan are as follows:

- (1) In addition to complying with all other applicable subsections, open waters in Lake Michigan shall meet the following criteria:

Table 8-9

Additional Criteria for Lake Michigan	
Parameters	Criteria
Dissolved oxygen	Dissolved oxygen concentrations shall not be less than seven (7.0) milligrams per liter at any time at all places outside the applicable mixing zone.
pH	No pH values below six (6.0) nor above nine (9.0), except daily fluctuations that exceed pH 9.0 and are correlated with photosynthetic activity, shall be permitted.
Chlorides	860 mg/l criterion maximum concentration 230 mg/l criterion continuous concentration
Phenols	See subsection (c)(1)
Sulfates	250 mg/l <sup>[1]</sup>
Total phosphorus	See 327 IAC 5-10-2
Total dissolved solids	750 mg/l <sup>[1]</sup>
Fluorides	1.0 mg/l <sup>[1]</sup>

Dissolved iron 300 µg/l<sup>[1]</sup>

<sup>[1]</sup>The above-noted criteria are established to minimize or prevent increased levels of these substances in Lake Michigan. For the purposes of establishing water quality-based effluent limitations based on the above-noted criteria, they shall be treated as four (4) day average criteria.

- (2) During each triennial review of the water quality standards, prior to preliminary adoption of revised rules, the department shall prepare a report for the board on the monitoring data for the constituents in the following table (Table 8-10), as measured at the drinking water intakes in Lake Michigan. If these data indicate that the levels of the constituents are either increasing or exceed the levels in the table, the report shall provide available information on the known and potential causes of the increased levels of these parameters, the known and potential impacts on aquatic life, wildlife, and human health, and any recommended revisions of the criteria.

Table 8-10

Parameters	Levels
pH	7.5-8.5 s.u.
Chlorides	
Monthly average	15 mg/l
Daily maximum	20 mg/l
Sulfates	
Monthly average	26 mg/l
Daily maximum	50 mg/l
Total phosphorus	
Monthly average	0.03 mg/l
Daily maximum	0.04 mg/l
Total dissolved solids	
Monthly average	172 mg/l
Daily maximum	200 mg/l

(k) The following table is for reference only to facilitate the comparison of the former water quality criteria with water quality criteria developed using the methodologies within this rule; these former water quality criteria shall not be used to establish water quality-based permit limits:

Table 8-11

Substances	Acute Aquatic Life	Chronic		
		Chronic Aquatic Life	Point of Water Intake	
			Human Health	Human Health
Metals (µg/l) (Acid soluble, except as indicated)				

Antimony			45,000 (T)	146 (T)
Arsenic (III)			0.175 (C)	0.022 (C)
Barium				1,000 (D)
Beryllium			1.17 (C)	0.068 (C)
Cadmium				10 (D)
Chromium (III)			3,433,000 (T)	170,000 (T)
Chromium (VI)				50 (D)
Lead	$e^{(1.273 [\ln \text{Hard}] - 1.460)}$	$e^{(1.273 [\ln \text{Hard}] - 4.705)}$		50 (D)
Nickel			100 (T)	13.4 (T)
Selenium				10 (D)
Silver	$e^{(1.72[\ln \text{Hard}] - 6.52)/2}$			50 (D)
Thallium			48 (T)	13 (T)
Organics ( $\mu\text{g/l}$ )				
Acrolein			780 (T)	320 (T)
Acrylonitrile			6.5 (C)	0.58 (C)
Aldrin	1.5		0.00079 (C)	0.00074 (C)
Benzidine			0.0053 (C)	0.0012 (C)
Carbon Tetrachloride			69.4 (C)	4.0 (C)
Chlordane	1.2	0.0043		
Chlorinated Benzenes				
1,2,4,5-Tetrachlorobenzene			48 (T)	38 (T)
Pentachlorobenzene			85 (T)	74 (T)
Hexachlorobenzene			0.0074 (C)	0.0072 (C)
Chlorinated Ethanes				
1,2-dichloroethane			2,430 (C)	9.4 (C)
1,1,1-trichloroethane			1,030,000 (T)	18,400 (T)
1,1,2-trichloroethane			418 (C)	6.0 (C)
1,1,2,2-tetrachloroethane			107 (C)	1.7 (C)
Chlorinated Phenols				
2,4,5-trichlorophenol				2,600 (T)
2,4,6-trichlorophenol			36 (C)	12 (C)
Chloroalkyl Ethers				
bis(2-chloroisopropyl) ether			4,360 (T)	34.7 (T)
bis(chloromethyl) ether			0.018 (C)	0.000038 (C)
bis(2-chloroethyl) ether			13.6 (C)	0.3 (C)
Chloroform			157 (C)	1.9 (C)
Chlorpyrifos	0.083	0.041		
DDT	0.55	0.001		
Dichlorobenzenes			2,600 (T)	400 (T)
Dichlorobenzidine			0.2 (C)	0.1 (C)
1,1-dichloroethylene			18.5 (C)	0.33 (C)
2,4-dichlorophenol				3,090 (T)
Dichloropropenes			14,100 (T)	87 (T)
2,4-dinitrotoluene			91 (C)	1.1 (C)
1,2-diphenylhydrazine			5.6 (C)	0.422 (C)
Endosulfan	0.11	0.056	159 (T)	74 (T)
Endrin				1.0 (D)
Ethylbenzene			3,280 (T)	1,400 (T)
Fluoranthene			54 (T)	42 (T)
Halomethanes			157 (C)	1.9 (C)
Heptachlor	0.26	0.0038	0.0028 (C)	0.0028 (C)
Hexachlorobutadiene			500 (C)	4.47 (C)

Hexachlorocyclohexane (HCH)			
alpha HCH			0.31 (C) 0.09 (C)
beta HCH			0.55 (C) 0.16 (C)
gamma HCH (Lindane)	1.0	0.08	0.63 (C) 0.19 (C)
Technical HCH			0.41 (C) 0.12 (C)
Hexachlorocyclopentadiene			
Isophorone			520,000 (T) 5,200 (T)
Nitrobenzene			19,800 (T)
4,6-dinitro-o-cresol			765 (T) 13.4 (T)
Nitrosamines			
N-nitrosodiethylamine			12.4 (C) 0.008 (C)
N-nitrosodimethylamine			160 (C) 0.014 (C)
N-nitrosodibutylamine			5.9 (C) 0.064 (C)
N-nitrosodiphenylamine			161 (C) 49 (C)
N-nitrosopyrrolidine			919 (C) 0.16 (C)
Pentachlorophenol			
Phenol			1,000 (T) 3,500 (T)
Phthalate Esters			
Dimethyl phthalate			2,900,000 (T) 313,000 (T)
Diethyl phthalate			1,800,000 (T) 350,000 (T)
Dibutyl phthalate			154,000 (T) 34,000 (T)
Di-2-ethylhexyl phthalate			50,000 (T) 15,000 (T)
Polychlorinated Biphenyls (PCBs)		0.014	0.00079 (C) 0.00079 (C)
Carcinogenic Polynuclear Aromatic Hydrocarbons (PAHs)			
Tetrachloroethylene			0.31 (C) 0.028 (C)
Toxaphene	0.73	0.0002	88.5 (C) 8 (C)
Vinyl Chloride			5,246 (C) 20 (C)
Other Substances			
Asbestos (fibers/liter)			300,000 (C)
Nitrate-N + Nitrite-N (mg/l)			10 (D)
Nitrite-N (mg/l)			1.0 (D)

Dissolved solids shall not exceed 750 mg/l in all waters.  
 Fluoride shall not exceed 2.0 mg/l in all waters.  
 Sulfates shall not exceed 250 mg/l in all waters.

NOTES:

- (T) derived from threshold toxicity.
- (C) derived from nonthreshold cancer risk.
- (D) derived from drinking water standards, equal to or less than threshold toxicity.

(l) The department shall calculate additional criteria or values as follows:

(1) The department shall calculate Tier I criteria or Tier II values (Tier I criteria will be calculated whenever sufficient data are available) using the methodologies under sections 11 through 15 of this rule, and shall publish them in the Indiana Register by July 1, 1997, for the following parameters:

Parameter	Table 8-12 Criteria or Values to be Calculated	
Acenaphthene	Aquatic life and human health	Acenaphthylene Aquatic life <sup>[1]</sup> and human health <sup>[1]</sup>
		Aldrin Aquatic life, human health, and wildlife
		Aluminum Aquatic life and human health
		Anthracene Aquatic life and human health
		Arsenic Human health
		Benzene Aquatic life
		Benzo(a)anthracene Aquatic life and human health <sup>[1]</sup>
		Benzo(a)Pyrene Aquatic life and human health <sup>[1]</sup>

Benzo(b)fluoranthene	Aquatic life and human health <sup>[1]</sup>
bis(2-ethylhexyl) phthalate	Aquatic life and human health
Cadmium	Human health
Chloroform	Aquatic life and human health
Chromium, Trivalent	Human health
Chromium, Hexavalent	Human health
Chrysene	Aquatic life <sup>[1]</sup> and human health <sup>[1]</sup>
DDT	Aquatic life
Dibenzofuran	Aquatic life and human health
Ethylbenzene	Aquatic life and human health
Ethylene glycol	Aquatic life and human health
Fluoranthene	Aquatic life and human health
Fluorene	Aquatic life and human health
Fluoride	Aquatic life and human health <sup>[1]</sup>
Iron	Aquatic life
Lead	Aquatic life and human health
Manganese	Aquatic life and human health
2-Methylnaphthalene	Aquatic life <sup>[1]</sup> and human health
Methylene chloride	Aquatic life
Methyl tert-Butyl Ether	Aquatic life and human health
Naphthalene	Aquatic life and human health
Nickel	Human health
Phenanthrene	Aquatic life and human health
Pyrene	Aquatic life <sup>[1]</sup> and human health
Selenium	Acute aquatic life and human health
Silver	Aquatic life and human health
Tetrachloroethylene	Aquatic life and human health
Toluene	Aquatic life
1,1,1-Trichloroethane	Aquatic life and human health
1,3,5-Trimethylbenzene	Aquatic life <sup>[1]</sup> and human health
Xylene	Aquatic life <sup>[1]</sup> and human health

<sup>[1]</sup>For the above-noted criteria, insufficient data are available to calculate Tier I criteria and Tier II values at this time. Unless data become available by May 1, 1997, IDEM may not be able to develop the above-noted criteria by July 1, 1997.

(2) By July 1, 1997, the department shall develop a schedule for determining criteria or values for the parameters that have criteria under 327 IAC 2-1-6, Table 1 that do not have criteria in this rule and for which criteria or values have not been calculated under subdivision (1).

(Water Pollution Control Board; 327 IAC 2-1.5-8; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1370; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3376)

### **327 IAC 2-1.5-9 Interim ground water quality standards (Repealed)**

Sec. 9. (Repealed by Water Pollution Control Board; filed Feb 4, 2002, 11:00 a.m.: 25 IR 1882)

### **327 IAC 2-1.5-10 Methods of analysis**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-4

Sec. 10. The analytical procedures used as methods of analysis to determine the chemical, bacteriological, biological, and radiological quality of waters sampled shall be in accordance with 40 CFR 136, Standard Methods for the Examination of Water and Wastewater, or methods approved by the commissioner. (Water Pollution Control Board; 327 IAC 2-1.5-10; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1381)

### **327 IAC 2-1.5-11 Determination of Tier I aquatic life criteria**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18

Sec. 11. (a) The procedures in this section shall be used to determine acute and chronic Tier I aquatic life criteria.

(b) The following considerations regarding the toxic substance shall be considered during the development of criteria or values:

(1) Each separate chemical that does not ionize substantially in most natural bodies of water should usually be considered a separate substance, except possibly for structurally similar organic compounds that only exist in large quantities as commercial mixtures of the various compounds and apparently have similar biological, chemical, physical, and toxicological properties.

(2) For chemicals that ionize substantially in most natural bodies of water, for example:

(A) some phenols and organic acids;

(B) some salts of phenols and organic acids; and

(C) most inorganic salts and coordination complexes of metals and metalloid;

all forms that would be in chemical equilibrium should usually be considered one (1) substance. Each different oxidation state of a metal and each different nonionizable covalently bonded organometallic compound should usually be considered a separate substance.

(3) The definition of the toxic substance should include an operational analytical component. Identification of a substance simply as sodium, for example, implies total sodium, but leaves room for doubt. If total is meant, it must be explicitly stated. Even total has different operational definitions, some of which do not necessarily measure all that is there in all samples. Thus, it is also necessary to reference or describe the analytical method that is intended. The selection of the operational analytical component should take into account the analytical and environmental chemistry of the material and various practical considerations, such as labor and equipment requirements, and whether the method would require measurement in the field or would allow measurement after samples are transported to a laboratory.

(A) The primary requirements of the operational analytical component shall be as follows:

- (i) Appropriate for use on samples of receiving water.
- (ii) Rarely result in underprotection or overprotection of aquatic organisms and their uses.
- (iii) Compatible with the available toxicity and bioaccumulation data without making extrapolations that are too hypothetical. Toxicity is the property of a substance, or combination of substances, to adversely affect organisms.

(B) Because an ideal analytical measurement will rarely be available, an appropriate compromise measurement will usually have to be used. This compromise measurement must fit with the general approach that if an ambient concentration is lower than the criterion, unacceptable effects will probably not occur, that is, the compromise measure must not err on the side of underprotection when measurements are made on a surface water. What is an appropriate measurement in one (1) situation might not be appropriate for another. For example, because the chemical and physical properties of an effluent are usually quite different from those of the receiving water, an analytical method that is appropriate for analyzing an effluent might not be appropriate for expressing a criterion, and vice versa. A criterion should be based on an appropriate analytical measurement, but the criterion is not rendered useless if an ideal measurement either is not available or is not feasible. The analytical chemistry of the substance might have to be taken into account when defining the substance or when judging the acceptability of some toxicity tests, but a criterion must not be based on the sensitivity of an analytical method. When aquatic organisms are more sensitive than routine analytical methods, the proper solution is to develop

better analytical methods.

(4) The use of dissolved metal to set and measure compliance with water quality standards for aquatic life is the recommended approach, because dissolved metal more closely approximates the bioavailable fraction of metal in the water column than does total recoverable metal. One (1) reason is that a primary mechanism for water column toxicity is adsorption at the gill surface that requires metals to be in the dissolved form. Reasons for the consideration of total recoverable metals criteria include risk management considerations not covered by evaluation of water column toxicity. The commissioner may, after considering sediment and food chain effects for a particular metal, decide to take a more conservative approach for the metal since metals are elements, hence persistent. This approach could include the use of total recoverable metal in the development of a water quality criterion for a specific metal.

(c) The following data collection procedures shall be followed when developing Tier I aquatic life criteria:

- (1) Collect all data available on the substance concerning toxicity to aquatic animals and plants.
- (2) All data that are used should be available in typed, dated, and signed hard copy, for example:
  - (A) publication;
  - (B) manuscript;
  - (C) letter; or
  - (D) memorandum;

with enough supporting information to indicate that acceptable test procedures were used and that the results are reliable. In some cases, it may be appropriate to obtain written information from the investigator, if possible. Information that is not available for distribution shall not be used.

(3) Questionable data, whether published or unpublished, shall not be used. For example, data shall be rejected if they are from tests:

- (A) that did not contain a control treatment;
- (B) in which too many organisms in the control treatment died or showed signs of stress or disease; and
- (C) in which distilled or deionized water was used as the dilution water without the addition of appropriate salts.

(4) Data on technical grade materials may be used if appropriate, but data on formulated mixtures and emulsifiable concentrates of the material shall not be used.

(5) For some highly volatile, hydrolyzable, or degradable materials, it may be appropriate to use only results of flow-through tests in which the concentrations of test material in test solutions were measured using acceptable analytical methods. A flow-through

test is a test with aquatic organisms in which test solutions flow into constant-volume test chambers either intermittently, for example, every few minutes, or continuously, with the excess flowing out.

(6) Data shall be rejected if obtained using the following:

(A) Brine shrimp, because they usually only occur naturally in water with salinity greater than thirty-five (35) grams per kilogram.

(B) Species that do not have reproducing wild populations in North America.

(C) Organisms that were previously exposed to substantial concentrations of the test material or other contaminants.

(D) Saltwater species except for use in deriving acute-chronic ratio (ACR).

(7) Questionable data, data on formulated mixtures and emulsifiable concentrates, and data obtained with species nonresident to North America or previously exposed organisms may be used to provide auxiliary information but shall not be used in the derivation of criteria.

(d) This subsection establishes the data requirements for the development of Tier I aquatic life criteria as follows:

(1) Certain data should be available to help ensure that each of the major kinds of possible adverse effects receives adequate consideration. An adverse effect is a change in an organism that is harmful to the organism. Exposure means contact with a chemical or physical agent. Results of acute and chronic toxicity tests with representative species of aquatic animals are necessary so that data available for tested species can be considered a useful indication of the sensitivities of appropriate untested species. Fewer data concerning toxicity to aquatic plants are usually available because procedures for conducting tests with plants and interpreting the results of such tests are not as well developed.

(2) To derive a Great Lakes Tier I criterion for aquatic organisms and their uses, the following must be available:

(A) Results of acceptable acute (or chronic) tests (see subsections (e) and (g)) with at least one (1) species of freshwater animal in at least eight (8) different families such that all of the following are included:

(i) The family Salmonidae in the class Osteichthyes.

(ii) One (1) other family (preferably a commercially or recreationally important, warmwater species) in the class Osteichthyes, for example:

(AA) bluegill; or

(BB) channel catfish.

(iii) A third family in the phylum Chordata, for example:

(AA) fish; or

(BB) amphibian.

(iv) A planktonic crustacean, for example:

(AA) a cladoceran; or

(BB) copepod.

(v) A benthic crustacean, for example:

(AA) ostracod;

(BB) isopod;

(CC) amphipod; or

(DD) crayfish.

(vi) An insect, for example:

(AA) mayfly;

(BB) dragonfly;

(CC) damselfly;

(DD) stonefly;

(EE) caddisfly;

(FF) mosquito; or

(GG) midge.

(vii) A family in a phylum other than Arthropoda or Chordata, for example:

(AA) Rotifera;

(BB) Annelida; or

(CC) Mollusca.

(viii) A family in any order of insect or any phylum not already represented.

(B) Acute-chronic ratios (see subsection (g)) with at least one (1) species of aquatic animal in at least three (3) different families provided that of the three (3) species:

(i) at least one (1) is a fish;

(ii) at least one (1) is an invertebrate; and

(iii) at least one (1) species is an acutely sensitive freshwater species (the other two (2) may be saltwater species).

(C) Results of at least one (1) acceptable test with a freshwater algae or vascular plant is desirable but not required for criterion derivation (see subsection (i)). If plants are among the aquatic organisms most sensitive to the material, results of a test with a plant in another phylum (division) should also be available.

(3) If all required data are available, a numerical criterion can usually be derived except in special cases. For example, derivation of a chronic criterion might not be possible if the available ACRs vary by more than a factor of ten (10) with no apparent pattern. Also, if a criterion is to be related to a water quality characteristic (see subsections (f) and (h)), more data will be required.

(4) Confidence in a criterion usually increases as the amount of available pertinent information increases.

Thus, additional data are usually desirable.

(e) The following procedures shall be used to calculate a final acute value (FAV):

(1) Appropriate measures of the acute (short term) toxicity of the material to a variety of species of aquatic animals are used to calculate the FAV. The calculated FAV is a calculated estimate of the concentration of a test material such that ninety-five percent (95%) of the genera (with which acceptable acute toxicity tests have been conducted on the material) have higher genus mean acute values (GMAVs). An acute test is a comparative study in which organisms, that are subjected to different treatments, are observed for a short period usually not constituting a substantial portion of their life span. However, in some cases, the species mean acute value (SMAV) of a commercially or recreationally important species of the Great Lakes system is lower than the calculated FAV, then the SMAV replaces the calculated FAV in order to provide protection for that important species.

(2) Acute toxicity tests shall be conducted in accordance with this subsection.

(3) Except for results with saltwater annelids and mysids, results of acute tests during which the test organisms were fed should not be used, unless data indicate that the food did not affect the toxicity of the test material. (If the minimum acute-chronic ratio data requirements (as described in subsection (d)(2)(B)) are not met with freshwater data alone, saltwater data may be used.)

(4) Results of acute tests conducted in unusual dilution water, for example, dilution water in which total organic carbon or particulate matter exceeded five (5) milligrams per liter, shall not be used, unless a relationship is developed between acute toxicity and organic carbon or particulate matter, or unless data show that the organic carbon or particulate matter do not affect toxicity.

(5) Acute values must be based upon endpoints which reflect the total severe adverse impact of the test material on the organisms used in the test. Therefore, only the following kinds of data on acute toxicity to aquatic animals shall be used:

(A) Tests with daphnids and other cladocerans must be started with organisms less than twenty-four (24) hours old and tests with midges must be started with second or third instar larvae. It is preferred that the results should be the forty-eight (48) hour  $EC_{50}$  based on the total percentage of organisms killed and immobilized. If such an  $EC_{50}$  is not available for a test, the forty-eight (48) hour  $LC_{50}$  should be used in place of the desired forty-eight (48) hour  $EC_{50}$ . An  $EC_{50}$  or  $LC_{50}$  of longer than forty-eight (48) hours

can be used as long as the animals were not fed and the control animals were acceptable at the end of the test.

(B) It is preferred that the results of a test with embryos and larvae of barnacles, bivalve molluscs (clams, mussels, oysters, and scallops), sea urchins, lobsters, crabs, shrimp, and abalones be the ninety-six (96) hour  $EC_{50}$  based on the percentage of organisms with incompletely developed shells plus the percentage of organisms killed. If such an  $EC_{50}$  is not available from a test, of the values that are available from the test, the lowest of the following should be used in place of the desired ninety-six (96) hour  $EC_{50}$ :

(i) Forty-eight (48) to ninety-six (96) hour  $EC_{50}$ s based on percentage of organisms with incompletely developed shells plus percentage of organisms killed.

(ii) Forty-eight (48) to ninety-six (96) hour  $EC_{50}$ s based upon percentage of organisms with incompletely developed shells.

(iii) Forty-eight (48) hour to ninety-six (96) hour  $LC_{50}$ s.

If the minimum acute-chronic ratio data requirements (as described in subsection (d)(2)(B)) are not met with freshwater data alone, saltwater data may be used.

(C) It is preferred that the result of tests with all other aquatic animal species and older life stages of barnacles, bivalve molluscs (clams, mussels, oysters, and scallops), sea urchins, lobsters, crabs, shrimp, and abalones be the ninety-six (96) hour  $EC_{50}$  based on percentage of organisms exhibiting loss of equilibrium plus percentage of organisms immobilized plus percentage of organisms killed. If such an  $EC_{50}$  is not available from a test, of the values that are available from a test, the lower of the following should be used in place of the desired ninety-six (96) hour  $EC_{50}$ :

(i) The ninety-six (96) hour  $EC_{50}$  based on percentage of organisms exhibiting loss of equilibrium plus percentage of organisms immobilized.

(ii) The ninety-six (96) hour  $LC_{50}$ .

(D) Tests results that take into account the number of young produced, such as most tests with protozoans, are not considered acute tests, even if the duration was ninety-six (96) hours or less.

(E) If the tests were conducted properly, acute values reported as greater than values and those that are above the solubility of the test material should be used, because rejection of such acute values would bias the final acute value by eliminating acute values for resistant species.

(6) If the acute toxicity of the material to aquatic animals has been shown to be related to a water quality characteristic, such as hardness or particulate matter for freshwater animals, refer to subsection (f).

(7) The agreement of the data within and between species must be considered. Acute values that appear to be questionable in comparison with other acute and chronic data for the same species and for other species in the same genus must not be used. For example, if the acute values available for a species or genus differ by more than a factor of ten (10), rejection of some or all of the values would be appropriate, absent countervailing circumstances.

(8) If the available data indicate that one (1) or more life stages are at least a factor of two (2) more resistant than one (1) or more other life stages of the same species, the data for the more resistant life stages shall not be used in the calculation of the SMAV because a species cannot be considered protected from acute toxicity if all of the life stages are not protected.

(9) For each species for which at least one (1) acute value is available, the SMAV shall be calculated as the geometric mean of the results of all acceptable flow-through acute toxicity tests in which the concentrations of test material were measured with the most sensitive tested life stage of the species. For a species for which no such result is available, the SMAV shall be calculated as the geometric mean of all acceptable acute toxicity tests with the most sensitive tested life stage, for example, results of flow-through tests in which the concentrations were not measured and results of static and renewal tests based on initial concentrations (nominal concentrations are acceptable for most test materials if measured concentrations are not available) of test material. A renewal test is a test with aquatic organisms in which either the test solution in a test chamber is removed and replaced at least once during the test or the test organisms are transferred into a new test solution of the same composition at least once during the test. A static test is a test with aquatic organisms in which the solution and organisms that are in a test chamber at the beginning of the test remain in the chamber until the end of the test, except for removal of dead test organisms. The following conditions are applicable to this calculation:

(A) Data reported by original investigators must not be rounded off. Results of all intermediate calculations must not be rounded off to fewer than four (4) significant digits.

(B) The geometric mean of N numbers is the Nth root of the product of the N numbers. Alternatively, the geometric mean can be calculated by adding the logarithms of the N numbers, dividing the sum by N,

and taking the antilog of the quotient. The geometric mean of two (2) numbers is the square root of the product of the two (2) numbers, and the geometric mean of one (1) number is that number. Either natural (base e) or common (base 10) logarithms can be used to calculate geometric means as long as they are used consistently within each set of data, for example, the antilog used must match the logarithms used.

(C) Geometric means, rather than arithmetic means, are used here because the distributions of sensitivities of individual organisms in toxicity tests on most materials and the distributions of sensitivities of species within a genus are more likely to be lognormal than normal. Similarly, geometric means are used for ACRs because quotients are likely to be closer to lognormal than normal distributions. In addition, division of the geometric mean of a set of numerators by the geometric mean of the set of denominators will result in the geometric mean of the set of corresponding quotients.

(10) For each genus for which one (1) or more SMAVs are available, the GMAV shall be calculated as the geometric mean of the SMAVs available for the genus.

(11) Order the GMAVs from high to low.

(12) Assign ranks, R, to the GMAVs from "1" for the lowest to "N" for the highest. If two (2) or more GMAVs are identical, assign them successive ranks.

(13) Calculate the cumulative probability, P, for each GMAV as  $R/(N + 1)$ .

(14) Select the four (4) GMAVs which have cumulative probabilities closest to five-hundredths (0.05) (if there are fewer than fifty-nine (59) GMAVs, these will always be the four (4) lowest GMAVs).

(15) Using the four (4) selected GMAVs and Ps, calculate:

$$(A) \text{FAV} = e^A$$

$$(B) A = S(\sqrt{0.05}) + L$$

$$(C) L = \frac{\sum (\ln \text{GMAV}) - S(\sum (\sqrt{P}))}{4}$$

$$(D) S^2 = \frac{\sum ((\ln \text{GMAV})^2) - \frac{(\sum (\ln \text{GMAV}))^2}{4}}{\sum (P) - \frac{(\sum (\sqrt{P}))^2}{4}}$$

(16) If for a commercially or recreationally important species of the Great Lakes system the geometric mean of the acute values from flow-through tests in which the concentrations of test material were measured is lower than the calculated FAV, then that geometric mean must be used as the FAV instead of the calculated FAV.

(f) When enough data are available to show that acute toxicity to two (2) or more species is similarly related to a water quality characteristic, the relationship shall be taken into account as described in subdivisions (1) through (6) or using analysis of covariance. The two (2) methods are equivalent and produce identical results. The manual method described in this subsection provides an understanding of this application of covariance analysis, but computerized versions of covariance analysis are much more convenient for analyzing large data sets. If two (2) or more factors affect toxicity, multiple regression analysis shall be used. An acute criterion based on a water quality characteristic shall be determined as follows:

- (1) For each species for which comparable acute toxicity values are available at two (2) or more different values of the water quality characteristic, perform a least squares regression of the acute toxicity values on the corresponding values of the water quality characteristic to obtain the slope and its ninety-five percent (95%) confidence limits for each species. (Because the best documented relationship is that between hardness and acute toxicity of metals in fresh water and a log-log relationship fits these data, geometric means and natural logarithms of both toxicity and water quality are used in the rest of this section. For relationships based on other water quality characteristics, such as pH, temperature, no transformation or a different transformation might fit the data better, and appropriate changes will be necessary throughout this section.)
- (2) Decide whether the data for each species are relevant, taking into account the range and number of the tested values of the water quality characteristic and the degree of agreement within and between species. For example, a slope based on six (6) data points might be of limited value if it is based only on data for a very narrow range of values of the water quality characteristic. A slope based on only two (2) data points, however, might be useful if it is consistent with other information and if the two (2) points cover a broad enough range of the water quality characteristic. In addition, acute values that appear to be questionable in comparison with other acute and chronic data available for the same species and for other species in the same genus should not be used. For example, if after adjustment for the water quality characteristic, the acute values available for a species or genus differ by more than a factor of ten (10), rejection of some or all of the values would be appropriate, absent countervailing justification. If useful slopes are not available for at least one (1) fish and one (1) invertebrate or if the available slopes are too dissimilar or if too few data are

available to adequately define the relationship between acute toxicity and the water quality characteristic, return to subsection (e)(7), using the results of tests conducted under conditions and in waters similar to those commonly used for toxicity tests with the species.

- (3) For each species, calculate the geometric mean of the available acute values and then divide each of the acute values for the species by the geometric mean for the species. This normalizes the acute values so that the geometric mean of the normalized values for each species individually and for any combination of species is one (1.0).
- (4) Similarly normalize the values of the water quality characteristic for each species individually using the procedure in subdivisions (1) through (3).
- (5) Individually for each species perform a least squares regression of the normalized acute values of the water quality characteristic. The resulting slopes and ninety-five percent (95%) confidence limits will be identical to those obtained in subdivision (1). If, however, the data are actually plotted, the line of best fit for each individual species will go through the point 1,1 in the center of the graph.
- (6) Treat all of the normalized data as if they were all for the same species and perform a least squares regression of all of the normalized acute values on the corresponding normalized values of the water quality characteristic to obtain the pooled acute slope,  $V$ , and its ninety-five percent (95%) confidence limits. If all of the normalized data are actually plotted, the line of best fit will go through the point 1,1 in the center of the graph.
- (7) For each species calculate the geometric mean,  $W$ , of the acute toxicity values and the geometric mean,  $X$ , of the values of the water quality characteristic. (These were calculated in subdivisions (3) and (4)).
- (8) For each species, calculate the logarithm,  $Y$ , of the SMAV at a selected value,  $Z$ , of the water quality characteristic using the equation:
 
$$Y = \ln W - V(\ln X - \ln Z)$$
- (9) For each species calculate the SMAV at  $Z$  using the equation:
 
$$\text{SMAV} = e^Y$$
- (10) Alternatively, the SMAVs at  $Z$  can be obtained by skipping the step in subdivision (7), using the equations in subdivisions (8) and (9) to adjust each acute value individually to  $Z$ , and then calculating the geometric mean of the adjusted values for each species individually. This alternative procedure allows an examination of the range of the adjusted acute values for each species.
- (11) Obtain the FAV at  $Z$  by using the procedure

described in subsection (e)(10) through (e)(15).

(12) If, for a commercially or recreationally important species of the Great Lakes system the geometric mean of the acute values at Z from flow-through tests in which the concentrations of the test material were measured is lower than the FAV at Z, then the geometric mean must be used as the FAV instead of the FAV calculated in subdivision (11).

(13) The Final Acute Equation is written as:

$$(\text{FAV}) = e^{(V[\ln(\text{water quality characteristic})] + A - V[\ln Z])}$$

Where: V = pooled acute slope.

$$A = \ln(\text{FAV at } Z).$$

Because V, A, and Z are known, the FAV can be calculated for any selected value of the water quality characteristic.

(g) The following procedures shall be used to calculate a final chronic value (FCV):

(1) Depending on the data that are available concerning chronic toxicity to aquatic animals, the FCV can be calculated in the same manner as the FAV or by dividing the FAV by the final acute-chronic ratio (FACR). In some cases, it might not be possible to calculate a FCV. The FCV is one (1) of the following as applicable:

(A) A calculated estimate of the concentration of a test material such that ninety-five percent (95%) of the genera (with which acceptable chronic toxicity tests have been conducted on the material) have higher GMCVs.

(B) The quotient of an FAV divided by an appropriate ACR (ACR is a way of relating acute and chronic toxicities).

(C) The SMCV of an important or critical species, if the SMCV is lower than the calculated estimate or the quotient.

(2) Chronic values shall be based on results of flow-through (except renewal is acceptable for daphnids) chronic tests in which the concentrations of test material in the test solutions were properly measured at appropriate times during the test. A chronic test is a comparative study in which organisms, that are subjected to different treatments, are observed for a long period or a substantial portion of their life span.

(3) Results of chronic tests in which survival, growth, or reproduction in the control treatment was unacceptably low shall not be used. The limits of acceptability will depend on the species.

(4) Results of chronic tests conducted in unusual dilution water, for example, dilution water in which total organic carbon or particulate matter exceeded five (5) milligrams per liter, should not be used, unless a relationship is developed between chronic toxicity and

organic carbon or particulate matter, or unless data show that the organic carbon or particulate matter do not affect toxicity.

(5) Chronic values must be based on endpoints and lengths of exposure appropriate to the species. Therefore, only results of the following kinds of chronic toxicity tests shall be used:

(A) Life-cycle toxicity tests consisting of exposures of each of two (2) or more groups of individuals of a species to a different concentration of the test material throughout a life cycle. To ensure that all life stages and life processes are exposed, the following procedures shall be followed:

(i) Tests with fish should begin with embryos or newly hatched young less than forty-eight (48) hours old, continue through maturation and reproduction, and should end not less than twenty-four (24) days (ninety (90) days for salmonids) after the hatching of the next generation. For fish, data should be obtained and analyzed on survival and growth of adults and young, maturation of males and females, eggs spawned per female, embryo viability (salmonids only), and hatchability.

(ii) Tests with daphnids should begin with young less than twenty-four (24) hours old and last for not less than twenty-one (21) days, and for ceriodaphnids not less than seven (7) days. For daphnids, data should be obtained and analyzed on survival and young per female.

(iii) Tests with mysids should begin with young less than twenty-four (24) hours old and continue until seven (7) days past the median time of first brood release in the controls. For mysids, data should be obtained and analyzed on survival, growth, and young per female.

(B) Partial life-cycle toxicity tests consist of exposures of each of two (2) or more groups of individuals of a species of fish to a different concentration of the test material through most portions of a life cycle. Partial life-cycle tests are allowed with fish species that require more than a year to reach sexual maturity, so that all major life stages can be exposed to the test material in less than fifteen (15) months. A life-cycle test is a comparative study in which organisms, that are subjected to different treatments, are observed at least from a life stage in one (1) generation to the same life-stage in the next generation. Exposure to the test material should begin with immature juveniles at least two (2) months prior to active gonad development, continue through maturation and reproduction, and end not less than twenty-four (24) days (ninety (90) days for salmonids) after the hatching of the next generation. Data should be

obtained and analyzed on survival and growth of adults and young, maturation of males and females, eggs spawned per female, embryo viability (salmonids only), and hatchability.

(C) Early life-stage toxicity tests consisting of twenty-eight (28) to thirty-two (32) day (sixty (60) days post hatch for salmonids) exposures of the early life stages of a species of fish from shortly after fertilization through embryonic, larval, and early juvenile development. Data should be obtained and analyzed on survival and growth. (Note: Results of an early life-stage test are used as predictions of results of life-cycle and partial life-cycle tests with the same species. Therefore, when results of a life-cycle or partial life-cycle test are available, results of an early life-stage test with the same species should not be used. Also, results of early life-stage tests in which the incidence of mortalities or abnormalities increased substantially near the end of the test shall not be used because the results of such tests are possibly not good predictions of comparable life-cycle or partial life-cycle tests.)

(6) A chronic value may be obtained by analyzing chronic data using regression analysis or by calculating the geometric mean of the lower and upper chronic limits from a chronic test as follows:

(A) A lower chronic limit is the highest tested concentration:

- (i) in an acceptable chronic test;
- (ii) which did not cause an unacceptable amount of adverse effect on any of the specified biological measurements; and
- (iii) below which no tested concentration caused an unacceptable effect.

(B) An upper chronic limit is the lowest tested concentration:

- (i) in an acceptable chronic test;
- (ii) which did cause an unacceptable amount of adverse effect on one (1) or more of the specified biological measurements; and
- (iii) above which all tested concentrations also caused such an effect.

(C) Because various authors have used a variety of terms and definitions to interpret and report results of chronic tests, reported results should be reviewed carefully. The amount of effect that is considered unacceptable is often based on a statistical hypothesis test, but might also be defined in terms of a specified percent reduction from the controls. A small percent reduction (for example, three percent (3%)) might be considered acceptable even if it is statistically significantly different from the control, whereas a large percent reduction (for example,

thirty percent (30%)) might be considered unacceptable even if it is not statistically significant.

(7) If the chronic toxicity of the material to aquatic animals has been shown to be related to a water quality characteristic such as hardness or particulate matter for freshwater animals, refer to subsection (h).

(8) If chronic values are available for species in eight (8) families as described in subsection (d)(2)(A), a SMCV shall be calculated for each species for which at least one (1) chronic value is available by calculating the geometric mean of the results of all acceptable life-cycle and partial life-cycle toxicity tests with the species; for a species of fish for which no such result is available, the SMCV is the geometric mean of all acceptable early life-stage tests. Appropriate GMCVs shall also be calculated. A GMCV is the geometric mean of the SMCVs for the genus. The FCV shall be obtained using the procedure described in subsection (e)(10) through (e)(15), substituting SMCV and GMCV for SMAV and GMAV, respectively. See subdivision (10).

(9) The following procedures are for use when chronic values are not available for species in eight (8) taxonomic families as described in subsection (d)(2)(A):

(A) For each chronic value for which at least one (1) corresponding appropriate acute value is available, calculate an ACR, using for the numerator the geometric mean of the results of all acceptable flow-through (except static is acceptable for daphnids and midges) acute tests in the same dilution water in which the concentrations are measured. For fish, the acute tests should be conducted with juveniles. The acute tests should be part of the same study as the chronic test. If acute tests were not conducted as part of the same study, but were conducted as part of a different study in the same laboratory and dilution water, then they may be used. If no such acute tests are available, results of acute tests conducted in the same dilution water in a different laboratory may be used. If no such acute tests are available, an ACR shall not be calculated.

(B) For each species, calculate the SMACR as the geometric mean of all ACRs available for that species. If the minimum ACR data requirements (as described in subsection (d)(2)(B)) are not met with freshwater data alone, saltwater data may be used along with the freshwater data.

(C) For some materials, the ACR seems to be the same for all species, but for other materials the ratio seems to increase or decrease as the SMAV increases. Thus the FACR can be obtained in the following three (3) ways, depending on the data available (If the available SMACRs do not fit one

(1) of these cases, a FACR may not be obtained and a Tier I FCV probably cannot be calculated.):

(i) If the species mean ACR seems to increase or decrease as the SMAVs increase, the FACR shall be calculated as the geometric mean of the ACRs for species whose SMAVs are close to the FAV.

(ii) If no major trend is apparent and the ACRs for all species are within a factor of ten (10), the FACR shall be calculated as the geometric mean of all of the SMACRs.

(iii) If the most appropriate SMACRs are less than two (2.0), and especially if they are less than one (1.0), acclimation has probably occurred during the chronic test. In this situation, because continuous exposure and acclimation cannot be assured to provide adequate protection in field situations, the FACR should be assumed to be two (2), so that the FCV is equal to the Criterion Maximum Concentration (CMC). (See subsection (k)(1).)

(D) Calculate the FCV by dividing the FAV by the FACR.  $FCV = FAV \div FACR$ . If there is a final acute equation rather than a FAV, see also subsection (f).

(10) If the SMCV of a commercially or recreationally important species of the Great Lakes system is lower than the calculated FCV, then that SMCV must be used as the FCV instead of the calculated FCV.

(h) When enough data are available to show that toxicity to two (2) or more species is similarly related to a water quality characteristic, the relationship shall be taken into account as described in this subsection. A final chronic equation can be derived in two (2) ways. The procedure described in subdivision (1) will result in the chronic slope being the same as the acute slope. The procedure described in subdivision (2) will usually result in the chronic slope being different from the acute slope. A chronic criterion based on a water quality characteristic shall be determined as follows:

(1) If ACRs are available for enough species at enough values of the water quality characteristic to indicate that the ACR appears to be the same for all species and appears to be independent of the water quality characteristic, then:

(A) calculate the FACR as the geometric mean of the available SMACRs;

(B) calculate the FCV at the selected value Z of the water quality characteristic by dividing the FAV at Z (see subsection (f)(11)) by the FACR; and

(C) use  $V =$  pooled acute slope (see subsection (f)(6)), and  $L =$  pooled chronic slope (see subdivision (2)(F)).

(2) When enough data are available to show that chronic toxicity to at least one (1) species is related to

a water quality characteristic, the relationship should be taken into account as described in clauses (A) through (E) or using analysis of covariance. The two (2) methods are equivalent and produce identical results. The manual method described in this subdivision provides an understanding of this application of covariance analysis, but computerized versions of covariance analysis are much more convenient for analyzing large data sets. If two (2) or more factors affect toxicity, multiple regression analysis shall be used.

(A) For each species for which comparable chronic toxicity values are available at two (2) or more different values of the water quality characteristic, perform a least squares regression of the chronic toxicity values on the corresponding values of the water quality characteristic to obtain the slope and its ninety-five percent (95%) confidence limits for each species. (Because the best documented relationship is that between hardness and acute toxicity of metals in fresh water and a log-log relationship fits these data, geometric means and natural logarithms of both toxicity and water quality are used in the rest of this section. For relationships based on other water quality characteristics, such as pH, temperature, no transformation, or a different transformation might fit the data better, and appropriate changes will be necessary throughout this section. It is probably preferable, but not necessary, to use the same transformation that was used with the acute values in subsection (f).)

(B) Decide whether the data for each species are relevant, taking into account the range and number of the tested values of the water quality characteristic and the degree of agreement within and between species. For example, a slope based on six (6) data points might be of limited value if it is based only on data for a very narrow range of values of the water quality characteristic. A slope based on only two (2) data points, however, might be more useful if it is consistent with other information and if the two (2) points cover a broad range of the water quality characteristic. In addition, chronic values that appear to be questionable in comparison with other acute and chronic data available for the same species and for other species in the same genus in most cases should not be used. For example, if after adjustment for the water quality characteristic, the chronic values available for a species or genus differ by more than a factor of ten (10), rejection of some or all of the values is, in most cases, absent countervailing circumstances, appropriate. If a useful chronic slope is not available for at least one (1) species or if

the available slopes are too dissimilar or if too few data are available to adequately define the relationship between chronic toxicity and the water quality characteristic, it might be appropriate to assume that the chronic slope is the same as the acute slope, which is equivalent to assuming that the ACR is independent of the water quality characteristic. Alternatively, return to subsection (g)(8), using the results of tests conducted under conditions and in waters similar to those commonly used for toxicity tests with the species.

(C) Individually for each species, calculate the geometric mean of the available chronic values and then divide each chronic value for a species by the mean for the species. This normalizes the chronic values so that the geometric mean of the normalized values for each species individually, and for any combination of species, is one (1.0).

(D) Similarly, normalize the values of the water quality characteristic for each species individually.

(E) Individually for each species, perform a least squares regression of the normalized chronic toxicity values on the corresponding normalized values of the water quality characteristic. The resulting slopes and the ninety-five percent (95%) confidence limits will be identical to those obtained in this subdivision. Now, however, if the data are actually plotted, the line of best fit for each individual species will go through the point 1,1 in the center of the graph.

(F) Treat all of the normalized data as if they were all the same species, and perform a least squares regression of all of the normalized chronic values on the corresponding normalized values of the water quality characteristic to obtain the pooled chronic slope, L, and its ninety-five percent (95%) confidence limits. If all normalized data are actually plotted, the line of best fit will go through the point 1,1 in the center of the graph.

(G) For each species, calculate the geometric mean, M, of the toxicity values and the geometric mean, P, of the values of the water quality characteristic. (These are calculated in clauses (C) and (D).)

(H) For each species, calculate the logarithm, Q, of the SMCV at a selected value, Z, of the water quality characteristic using the equation:

$$Q = \ln M - L(\ln P - \ln Z)$$

(Although it is not necessary, it is recommended that the same value of the water quality characteristic be used here as was used in subsection (f).)

(I) For each species, calculate a SMCV at Z using the equation:

$$\text{SMCV} = e^Q$$

(Alternatively, the SMCV at Z can be obtained by

skipping clause (G), using the equations in clause (H) and this clause to adjust each chronic value individually to Z, and then calculating the geometric means of the adjusted values for each species individually. This alternative procedure allows an examination of the range of the adjusted chronic values for each species.)

(J) Obtain the FCV at Z by using the procedure described in subsection (e)(10) through (e)(15).

(3) If the SMCV at Z of a commercially or recreationally important species of the Great Lakes system is lower than the calculated FCV at Z, then that SMCV shall be used as the FCV at Z instead of the calculated FCV.

(4) The final chronic equation is written as:  

$$\text{FCV} = e^{(L[\ln(\text{water quality characteristic})] + \ln S - L[\ln Z])}$$

Where: L = pooled chronic slope.  
 S = FCV at Z.

Because L, S, and Z are known, the FCV can be calculated for any selected value of the water quality characteristic.

(i) A final plant value (FPV) is the lowest plant value that was obtained with an important aquatic plant species in an acceptable toxicity test for which the concentrations of the test material were measured and the adverse effect was biologically important. Appropriate measures of the toxicity of the material to aquatic plants are used to compare the relative sensitivities of aquatic plants and animals. Although procedures for conducting and interpreting the results of toxicity tests with plants are not well-developed, results of tests with plants usually indicate that criteria which adequately protect aquatic animals and their uses will, in most cases, also protect aquatic plants and their uses. When developing an FPV, the following apply:

(1) A plant value is the result of a ninety-six (96) hour test conducted with an alga or a chronic test conducted with an aquatic vascular plant. (A test of the toxicity of a metal to a plant shall not be used if the medium contained an excessive amount of a complexing agent, such as EDTA, that might affect the toxicity of the metal. Concentrations of EDTA above two hundred (200) µg/L should be considered excessive.)

(2) The FPV shall be obtained by selecting the lowest result from a test with an important aquatic plant species in which the concentrations of test material are measured and the endpoint is biologically important.

(j) Pertinent information that could not be used in earlier subsections may be available concerning adverse effects on aquatic organisms. The following are data that may affect a criterion if the data were obtained with an important species, the test concentrations were measured, and the endpoint was biologically important:

- (1) Cumulative and delayed toxicity, reduction in survival, growth, or reproduction, or any other adverse effect that has been shown to be biologically important. Delayed toxicity is an adverse effect to an organism that results from, and occurs after the end of, its exposure to one (1) or more test materials.
- (2) Species for which no other data are available.
- (3) Behavioral, biochemical, physiological, microcosm, and field studies.
- (4) Tests conducted in unusual dilution water (see subsections (e)(4) and (g)(4)).
- (5) Chronic tests in which the concentrations were not measured (see subsection (g)(2)).
- (6) Tests with previously exposed organisms (see subsection (c)(6)(C)).
- (7) Tests on formulated mixtures or emulsifiable concentrates (see subsection (c)(4)).
- (k) A criterion consists of two (2) concentrations, the criterion maximum concentration (CMC) and the criterion continuous concentration (CCC), determined as follows:

- (1) The CMC is equal to one-half ( $\frac{1}{2}$ ) the FAV. The CMC is an estimate of the highest concentration of a material in the water column to which an aquatic community can be exposed briefly without resulting in an unacceptable effect.
- (2) The CCC is equal to the lowest of the FCV or the FPV (if available) unless other data (see subsection (j)) show that a lower value should be used. The CCC is an estimate of the highest concentration of a material in the water column to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect. If toxicity is related to a water quality characteristic, the CCC is obtained from the final chronic equation or FPV (if available) that results in the lowest concentrations in the usual range of the water quality characteristic, unless other data (see subsection (j)) show that a lower value should be used.
- (3) Round both the CMC and the CCC to two (2) significant digits.
- (4) The criterion is stated as follows:
- (A) The procedures described in the Tier I methodology indicate that, except possibly where a commercially or recreationally important species is very sensitive, aquatic organisms should not be affected unacceptably if the four (4) day average concentration of (insert name of substance) does not exceed (insert the CCC for the substance)  $\mu\text{g/L}$  more than once every three (3) years on the average and if the one (1) hour average concentration does not exceed (insert the CMC for the substance)  $\mu\text{g/L}$  more than once every three (3) years on the average.
- (B) If the CMC averaging period of one (1) hour or

the CCC averaging period of four (4) days is inappropriate for the pollutant, or if the once-in-three-year allowable excursion frequency is inappropriate for the pollutant or for the sites to which a criterion is applied, then the commissioner may specify alternative averaging periods or frequencies. The choice of an alternative averaging period or frequency shall be justified by a scientifically defensible analysis demonstrating that the alternative values will protect the aquatic life uses of the water. Appropriate laboratory data or well-designed field biological surveys shall be submitted to the U.S. EPA as justification for differing averaging periods or frequencies of exceedance.

*(Water Pollution Control Board; 327 IAC 2-1.5-11; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1381; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3377)*

### **327 IAC 2-1.5-12 Determination of Tier II aquatic life values**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-4

Sec. 12. (a) If all eight (8) minimum data requirements for calculating an FAV using Tier I under section 11 of this rule are not met, a secondary acute value (SAV) for the waters of the Great Lakes system shall be calculated for a chemical as follows:

- (1) To calculate a SAV, the lowest GMAV in the database is divided by the secondary acute factor (SAF) (Table 12-1 in this section) corresponding to the number of satisfied minimum data requirements listed in the Tier I methodology (section 11(d)(2)(A) of this rule). (Requirements for definitions, data collection, and data review, contained in section 11(b), 11(c), and 11(e) of this rule, shall be applied to calculation of a SAV.) If all eight (8) minimum data requirements are satisfied, a Tier I criterion calculation may be possible. In order to calculate a SAV, the database must contain, at a minimum, a genus mean acute value (GMAV) for one (1) of the following three (3) genera in the family Daphnidae:
- (A) Ceriodaphnia sp.
- (B) Daphnia sp.
- (C) Simocephalus sp.
- (2) If appropriate, the SAV shall be made a function of a water quality characteristic in a manner similar to that described in the Tier I calculation procedure under section 11(f) of this rule.
- (b) If three (3) or more experimentally determined ACRs, meeting the data collection and review requirements of section 11(g) of this rule, are available for the chemical, determine the FACR using the procedure

described in section 11(g) of this rule. If fewer than three (3) acceptable experimentally determined ACRs are available, use enough assumed ACRs of eighteen (18) so that the total number of ACRs equals three (3). Calculate the secondary acute-chronic ratio (SACR) as the geometric mean of the three (3) ACRs. Thus, if no experimentally determined ACRs are available, the SACR is eighteen (18).

(c) Calculate the secondary chronic value (SCV) using one (1) of the following (if appropriate, the SCV will be made a function of a water quality characteristic in a manner similar to that described in the Tier I calculation procedure under section 11 of this rule):

$$(1) \text{ SCV} = \frac{\text{FAV}}{\text{SACR}} \text{ (use FAV from Tier I)}$$

$$(2) \text{ SCV} = \frac{\text{SAV}}{\text{FACR}}$$

$$(3) \text{ SCV} = \frac{\text{SAV}}{\text{SACR}}$$

(d) If for a commercially or recreationally important species of the Great Lakes system the geometric mean of the acute values or chronic values from flow-through tests in which the concentrations of the test materials were measured is lower than the calculated SAV or SCV, then that geometric mean must be used as the SAV or SCV instead of the calculated SAV or SCV.

(e) A Tier II value shall consist of two (2) concentrations; the secondary maximum concentration (SMC) and the secondary continuous concentration (SCC) determined as follows:

- (1) The SMC is equal to one-half (½) of the SAV.
- (2) The SCC is equal to the lowest of the SCV or the final plant value, if available, unless other data (see section 11(j) of this rule) show that a lower value should be used. If toxicity is related to a water quality characteristic, the SCC is obtained from the secondary chronic equation or FPV, if available, that results in the lowest concentrations in the usual range of the water quality characteristic, unless other data (see section 11(j) of this rule) show that a lower value should be used.
- (3) Round both the SMC and the SCC to two (2) significant digits.
- (4) The Tier II value is stated as follows:
  - (A) The procedures described in the Tier II methodology indicate that, except possibly where a locally important species is very sensitive, aquatic organisms should not be affected unacceptably if the four (4) day average concentration of (insert name of material) does not exceed (insert the SCC) µg/L more than once every three (3) years on the average and if the one (1) hour average concentration does

not exceed (insert the SMC) µg/L more than once every three (3) years on the average.

(B) As provided under section 11(k)(4)(B) of this rule, the commissioner has the discretion to specify alternative averaging periods or frequencies.

(f) On the basis of all available pertinent laboratory and field information, determine if the Tier II value is consistent with sound scientific evidence. If it is not, another value, either higher or lower, shall be derived consistent with the procedures in this section.

(g) The following table shall be used to determine secondary acute factors (SAFs):

Table 12-1

Secondary Acute Factors	
Number of Minimum Data Requirements Satisfied	Adjustment Factor
1	21.9
2	13.0
3	8.0
4	7.0
5	6.1
6	5.2
7	4.3

(Water Pollution Control Board; 327 IAC 2-1.5-12; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1391)

### 327 IAC 2-1.5-13 Determination of bioaccumulation factors (BAFs)

Authority: IC 13-14-8; IC 13-14-9; IC 13-18-3

Affected: IC 13-18-4

Sec. 13. (a) This section describes procedures for deriving bioaccumulation factors (BAFs) to be used in the calculation of human health Tier I criteria and Tier II values and wildlife Tier I criteria. A subset of the human health BAFs is also used to identify the chemicals that are considered bioaccumulative chemicals of concern (BCCs). BAFs are derived as follows:

- (1) Bioaccumulation reflects uptake of a substance by aquatic organisms exposed to the substance through all routes, such as ambient water and food, as would occur in nature. Bioconcentration reflects uptake of a substance by aquatic organisms exposed to the substance only through the ambient water. Both BAFs and bioconcentration factors (BCFs) are proportionality constants that describe the relationship between the concentration of a substance in aquatic organisms and its concentration in the ambient water. In this section, BAFs, rather than BCFs, are used to calculate Tier I criteria for human health and wildlife and Tier II values for human health because they better account for the total exposure of aquatic organisms to chemicals.

(2) For organic chemicals, the lipid content of the aquatic organisms is used to account for partitioning of organic chemicals within organisms so that data from different tissues and species can be integrated. The baseline BAF is based on the concentration of freely dissolved organic chemicals in the ambient water to facilitate extrapolation from one (1) water to another. Baseline BAFs shall be derived using one (1) of the following four (4) methods:

(A) Measured baseline BAFs are derived from field-measured BAFs.

(B) Predicted baseline BAFs are derived using biota-sediment accumulation factors (BSAFs).

(C) Predicted baseline BAFs are derived by multiplying a laboratory-measured BCF by a food-chain multiplier (FCM).

(D) Predicted baseline BAFs are derived by multiplying a predicted BCF by a FCM.

(3) For inorganic chemicals, BAFs are assumed to equal BCFs (that is, the FCM is one (1.0)) unless chemical-specific biomagnification data support using a FCM other than one (1.0). The baseline BAFs are derived using either of the following two (2) methods:

(A) Field-measured BAFs.

(B) By multiplying laboratory-measured BCFs by a FCM.

(4) Because both humans and wildlife consume fish from both trophic levels three (3) and four (4), two (2) baseline BAFs are needed to calculate either a human health criterion or value or a wildlife criterion for a chemical. When appropriate, ingestion through consumption of invertebrates, plants, mammals, and birds in the diet of wildlife species to be protected may be taken into account.

(b) The following procedures shall be used to review and select the data necessary to determine BAFs, BSAFs, and BCFs:

(1) Measured BAFs, BSAFs, and BCFs are assembled from available sources, including the following:

(A) U.S. EPA Ambient Water Quality Criteria documents issued after January 1, 1980.

(B) Published scientific literature.

(C) Reports issued by U.S. EPA or other reliable sources.

(D) Unpublished data.

(E) Sources referenced in the Aquatic Toxicity Information Retrieval (AQUIRE) database.

(2) The following procedural and quality assurance requirements shall be met for field-measured BAFs:

(A) The field studies used shall be limited to those conducted in the Great Lakes system with fish at or near the top of the aquatic food chain, for example, in trophic levels three (3) or four (4).

(B) The trophic level of the fish species shall be determined.

(C) The site of the field study should not be so unique that the BAF cannot be extrapolated to other locations where the criteria and values will apply.

(D) For organic chemicals, the percent lipid shall be either measured or reliably estimated for the tissue used in the determination of the BAF.

(E) The concentration of the chemical in the water shall be measured in a way that can be related to particulate organic carbon (POC) or dissolved organic carbon (DOC) and should be relatively constant during the steady-state time period.

(F) For organic chemicals with log  $K_{ow}$  greater than four (4), the concentrations of POC and DOC in the ambient water shall be either measured or reliably estimated.

(G) For inorganic and organic chemicals, BAFs shall be used only if they are expressed on a wet weight basis; BAFs reported on a dry weight basis cannot be converted to wet weight unless a conversion factor is measured or reliably estimated for the tissue used in the determination of the BAF.

(3) The following procedural and quality assurance requirements shall be met for field-measured BSAFs:

(A) The field studies used shall be limited to those conducted in the Great Lakes system with fish at or near the top of the aquatic food chain, for example, in trophic levels three (3) or four (4).

(B) Samples of surface sediments (zero (0) to one (1) centimeter is ideal) shall be from locations in which there is net deposition of fine sediment and is representative of average surface sediment in the vicinity of the organism.

(C) The  $K_{ows}$  used shall be of acceptable quality as described in subdivision (6).

(D) The site of the field study should not be so unique that the resulting BAF cannot be extrapolated to other locations where the criteria and values will apply.

(E) The trophic level of the fish species shall be determined.

(F) The percent lipid shall be either measured or reliably estimated for the tissue used in the determination of the BAF.

(4) The following procedural and quality assurance requirements shall be met for laboratory-measured BCFs:

(A) The test organism shall not be diseased, unhealthy, or adversely affected by the concentration of the chemical.

(B) The total concentration of the chemical in the water shall be measured and should be relatively

constant during the steady-state time period.

(C) The organisms shall be exposed to the chemical using a flow-through or renewal procedure.

(D) For organic chemicals, the percent lipid shall be either measured or reliably estimated for the tissue used in the determination of the BCF.

(E) For organic chemicals with  $\log K_{ow}$  greater than four (4), the concentrations of POC and DOC in the test solution shall be either measured or reliably estimated.

(F) Laboratory-measured BCFs should be determined using fish species, but BCFs determined with molluscs and other invertebrates may be used with caution. For example, because invertebrates metabolize some chemicals less efficiently than vertebrates, a baseline BCF determined for such a chemical using invertebrates is expected to be higher than a comparable baseline BCF determined using fish.

(G) If laboratory-measured BCFs increase or decrease as the concentration of the chemical increases in the test solutions in a bioconcentration test, the BCF measured at the lowest test concentration that is above concentrations existing in the control water shall be used, for example, a BCF should not be calculated from a control treatment. The concentrations of an inorganic chemical in a bioconcentration test should be greater than normal background levels and greater than levels required for normal nutrition of the test species if the chemical is a micronutrient, but below levels that adversely affect the species. Bioaccumulation of an inorganic chemical might be overestimated if concentrations are at or below normal background levels due to, for example, nutritional requirements of the test organisms.

(H) For inorganic and organic chemicals, BCFs shall be used only if they are expressed on a wet weight basis. BCFs reported on a dry weight basis cannot be converted to wet weight unless a conversion factor is measured or reliably estimated for the tissue used in the determination of the BAF.

(I) BCFs for organic chemicals may be based on measurement of radioactivity only when the BCF is intended to include metabolites or when there is confidence that there is no interference due to metabolites.

(J) The calculation of the BCF must appropriately address growth dilution.

(K) Other aspects of the methodology used shall be similar to those described by ASTM, 1990, Standard Practice for Conducting Bioconcentration Tests with Fishes and Saltwater Bivalve Molluscs, Standard E 1022.

(5) The following procedural and quality assurance

requirements shall be met for predicted BCFs:

(A) The  $K_{ow}$  used shall be of acceptable quality as described in subdivision (6).

(B) The predicted baseline BCF shall be calculated using the equation:

$$\text{predicted baseline BCF} = K_{ow}$$

Where:  $K_{ow}$  = octanol-water partition coefficient.

(6) The value of  $K_{ow}$  shall be determined as follows:

(A) The value of  $K_{ow}$  used for an organic chemical shall be determined by giving priority to the experimental and computational techniques used as follows:

(i) Where the  $\log K_{ow}$  is less than four (4) ( $\log K_{ow} < 4$ ):

Priority	Technique
1	Slow-stir
1	Generator-column
1	Shake-flask
2	Reverse-phase liquid chromatography on C18 chromatography packing with extrapolation to zero percent solvent
3	Reverse-phase liquid chromatography on C18 chromatography packing without extrapolation to zero percent solvent
4	Calculated by the CLOGP program

(ii) Where the  $\log K_{ow}$  is greater than four (4) ( $\log K_{ow} > 4$ ):

Priority	Technique
1	Slow-stir
1	Generator-column
2	Reverse-phase liquid chromatography on C18 chromatography packing with extrapolation to zero percent solvent
3	Reverse-phase liquid chromatography on C18 chromatography packing without extrapolation to zero percent solvent
4	Shake-flask
5	Calculated by the CLOGP program

(B) The CLOGP program is a computer program available from Pomona College. A value of  $K_{ow}$  that seems to be different from the others should be considered an outlier and not used. The value of  $K_{ow}$  used for an organic chemical shall be the geometric mean of the available  $K_{ow}$ s with highest priority or can be calculated from the arithmetic mean of the available  $\log K_{ow}$ s with the highest priority. Because it is an intermediate value in the derivation of a BAF, the value used for the  $K_{ow}$  of a chemical should not be rounded to fewer than three (3) significant digits and a value for  $\log K_{ow}$  should not be rounded to fewer than three (3) significant digits after the decimal point.

(7) This section provides overall guidance for the

derivation of BAFs, but it cannot cover all the decisions that must be made in the review and selection of acceptable data. Professional judgment is required throughout the process. A degree of uncertainty is associated with the determination of any BAF, BSAF, BCF, or  $K_{ow}$ . The amount of uncertainty in a baseline BAF depends on both the quality of data available and the method used to derive the BAF.

(8) Hereinafter in this section, "BAF", "BSAF", "BCF", and " $K_{ow}$ " refer to the "BAF", "BSAF", "BCF", and " $K_{ow}$ " that are consistent with the procedural and quality assurance requirements given in this subsection.

(c) For comparative purposes, baseline BAFs should be derived for each chemical by as many of the four (4) methods as available data allow. Baseline BAFs shall be derived using the following four (4) methods, which are listed from most preferred to least preferred:

(1) A measured baseline BAF for an organic or inorganic chemical derived from a field study of acceptable quality.

(2) A predicted baseline BAF for an organic chemical derived using field-measured BSAFs of acceptable quality.

(3) A predicted baseline BAF for an organic or inorganic chemical derived from a BCF measured in a laboratory study of acceptable quality and an FCM.

(4) A predicted baseline BAF for an organic chemical derived from a  $K_{ow}$  of acceptable quality and an FCM.

(d) The following procedures shall be used to calculate baseline BAFs for organic chemicals:

(1) The following procedures shall be used to determine the lipid-normalized concentration:

(A) It is assumed that BAFs and BCFs for organic chemicals can be extrapolated on the basis of percent lipid from one (1) tissue to another and from one (1) aquatic species to another in most cases.

(B) Because BAFs and BCFs for organic chemicals are related to the percent lipid, it does not make any difference whether the tissue sample is whole body or edible portion, but both the BAF (or BCF) and the percent lipid must be determined for the same tissue. The percent lipid of the tissue should be measured during the BAF or BCF study, but in some cases it can be reliably estimated from measurements on tissue from other organisms. If percent lipid is not reported for the test organisms in the original study, it may be obtained from the author; or, in the case of a laboratory study, lipid data for the same or a comparable laboratory population of test organisms that were used in the original study may be used.

(C) The lipid-normalized concentration,  $C_t$ , of a chemical in tissue is defined using the following equation:

$$C_t = \frac{C_B}{f_t}$$

Where:  $C_B$  = concentration of the organic chemical in the tissue of aquatic biota (either whole organism or specified tissue) (micrograms per gram).

$f_t$  = fraction of the tissue that is lipid.

(2) By definition, baseline BAFs and BCFs for organic chemicals, whether measured or predicted are based on the concentration of the chemical that is freely dissolved in the ambient water in order to account for bioavailability. The following procedures shall be used to determine this freely dissolved concentration:

(A) For the purposes of this subsection, the relationship between the total concentration of the chemical in the water (that which is freely dissolved plus that which is sorbed to particulate organic carbon or to dissolved organic carbon) to the freely dissolved concentration of the chemical in the ambient water shall be calculated using the following equation:

$$C_w^{fd} = (f_{fd})(C_w^t)$$

Where:  $C_w^{fd}$  = freely dissolved concentration of the organic chemical in the ambient water.

$C_w^t$  = total concentration of the organic chemical in the ambient water.

$f_{fd}$  = fraction of the total chemical in the ambient water that is freely dissolved.

(B) The fraction of the total chemical in the ambient water that is freely dissolved,  $f_{fd}$ , shall be calculated using the following equation:

$$f_{fd} = \frac{1}{1 + \frac{(DOC)(K_{ow})}{10} + (POC)(K_{ow})}$$

Where: DOC = concentration of dissolved organic carbon in kilograms of dissolved organic carbon per liter of water.

$K_{ow}$  = octanol-water partition coefficient of the chemical.

POC = concentration of particulate organic carbon in kilograms of particulate organic carbon per liter of water.

(3) In the absence of a field-measured BAF or a predicted BAF derived from a BSAF, a food chain multiplier (FCM) shall be used to calculate the baseline BAF for trophic levels three (3) and four (4) from a laboratory-measured or predicted BCF. For an organic chemical, the FCM used shall be derived from Table 13-1 in subsection (h), using the chemical's log  $K_{ow}$  and linear interpolation. An FCM greater than one (1.0) applies to most organic chemicals with a log  $K_{ow}$

of four (4) or more. The trophic level used shall take into account the age or size of the fish species consumed by the human, avian, or mammalian predator because, for some species of fish, the young are in trophic level three (3) whereas the adults are in trophic level four (4).

(4) A baseline BAF shall be calculated from a field-measured BAF of acceptable quality using the following equation:

$$\text{Baseline BAF} = \left[ \frac{\text{Measured BAF}_T^t}{f_{fd}} - 1 \right] \left( \frac{1}{f_t} \right)$$

Where:  $\text{BAF}_T^t$  = BAF based on total concentration in tissue and water.

$f_t$  = fraction of the tissue that is lipid.

$f_{fd}$  = fraction of the total chemical that is freely dissolved in the ambient water.

The trophic level to which the baseline BAF applies is the same as the trophic level of the organisms used in the determination of the field-measured BAF. For each trophic level, a species mean measured baseline BAF shall be calculated as the geometric mean if more than one (1) measured baseline BAF is available for a given species. For each trophic level, the geometric mean of the species mean measured baseline BAFs shall be calculated. If a baseline BAF based on a measured BAF is available for either trophic level three (3) or four (4), but not both, a measured baseline BAF for the other trophic level shall be calculated using the ratio of the FCMs that are obtained by linear interpolation from Table 13-1 in subsection (h) for the chemical.

(5) A baseline BAF shall be calculated from a field-measured BAF in accordance with the following:

(A) A baseline BAF for organic chemical "i" shall be calculated from a field-measured BSAF of acceptable quality using the following equation:

$$(\text{Baseline BAF})_i = (\text{Baseline BAF})_r \cdot \frac{(\text{BSAF})_i \cdot (K_{ow})_i}{(\text{BSAF})_r \cdot (K_{ow})_r}$$

Where:  $(\text{BSAF})_i$  = BSAF for chemical "i".

$(\text{BSAF})_r$  = BSAF for the reference chemical "r".

$(K_{ow})_i$  = octanol-water partition coefficient for chemical "i".

$(K_{ow})_r$  = octanol-water partition coefficient for the reference chemical "r".

(B) A BSAF shall be calculated using the following equation:

$$\text{BSAF} = \frac{C_t}{C_{\text{SOC}}}$$

Where:  $C_t$  = the lipid-normalized concentration of the chemical in tissue.

$C_{\text{SOC}}$  = the organic carbon-normalized concentration of the chemical in sediment.

(C) The organic carbon-normalized concentration of a chemical in sediment,  $C_{\text{SOC}}$ , shall be calculated using the following equation:

$$C_{\text{SOC}} = \frac{C_s}{f_{\text{OC}}}$$

Where:  $C_s$  = concentration of chemical in sediment (micrograms per gram of sediment).

$f_{\text{OC}}$  = fraction of the sediment that is organic carbon.

(D) Predicting BAFs from BSAFs requires data from a steady-state (or near steady-state) condition between sediment and ambient water for both a reference chemical "r" with a field-measured  $\text{BAF}_t^{\text{fd}}$  and other chemicals "n = i" for which BSAFs are to be determined.

(E) The trophic level to which the baseline BAF applies is the same as the trophic level of the organisms used in the determination of the BSAF. For each trophic level, a species mean baseline BAF shall be calculated as the geometric mean if more than one (1) baseline BAF is predicted from BSAFs for a given species. For each trophic level, the geometric mean of the species mean baseline BAFs derived using BSAFs shall be calculated.

(F) If a baseline BAF based on a measured BSAF is available for either trophic level three (3) or four (4), but not both, a baseline BAF for the other trophic level shall be calculated using the ratio of the FCMs that are obtained by linear interpolation from Table 13-1 in subsection (h) for the chemical.

(6) A baseline BAF for trophic level three (3) and a baseline BAF for trophic level four (4) shall be calculated from a laboratory-measured BCF of acceptable quality and a FCM using the following equation:

$$\text{Baseline BAF} = (\text{FCM}) \left[ \frac{\text{Measured BCF}_T^t}{f_{fd}} - 1 \right] \left( \frac{1}{f_t} \right)$$

Where:  $\text{BCF}_T^t$  = BCF based on total concentration in tissue and water.

$f_t$  = fraction of the tissue that is lipid.

$f_{fd}$  = fraction of the total chemical in the test water that is freely dissolved.

FCM = the food-chain multiplier obtained from Table 13-1 in subsection (h) by linear interpolation for trophic level three (3) or four (4) as necessary.

For each trophic level, a species mean baseline BAF

shall be calculated as the geometric mean if more than one (1) baseline BAF is predicted from laboratory-measured BCFs for a given species. For each trophic level, the geometric mean of the species mean baseline BAFs based on laboratory-measured BCFs shall be calculated.

(7) A baseline BAF for trophic level three (3) and a baseline BAF for trophic level four (4) shall be calculated from a  $K_{ow}$  of acceptable quality and a FCM using the following equation:

$$\text{Baseline BAF} = (\text{FCM})(\text{predicted baseline BCF}) = (\text{FCM})(K_{ow})$$

Where: FCM = the food-chain multiplier obtained from Table 13-1 in subsection (h) by linear interpolation for trophic level three (3) or four (4) as necessary.

$K_{ow}$  = octanol-water partition coefficient.

(e) The following procedures shall be used to calculate human health and wildlife BAFs for organic chemicals:

(1) To calculate human health and wildlife BAFs for an organic chemical, the  $K_{ow}$  of the chemical shall be used with a POC concentration of 0.00000004 kilograms per liter and a DOC concentration of 0.000002 kilograms per liter to yield the fraction freely dissolved:

$$\begin{aligned} f_{fd} &= \frac{1}{1 + \frac{(\text{DOC})(K_{ow})}{10} + (\text{POC})(K_{ow})} \\ &= \frac{1}{1 + \frac{(0.000002 \text{ kg/L})(K_{ow})}{10} + (0.00000004 \text{ kg/L})(K_{ow})} \\ &= \frac{1}{1 + (0.00000024 \text{ kg/L})(K_{ow})} \end{aligned}$$

(2) The human health BAFs for an organic chemical shall be calculated using the following equations:

(A) For trophic level three (3):

$$\text{Human Health BAF}_{TL3}^{HH} = [(\text{baseline BAF})(0.0182) + 1](f_{fd})$$

Where: 0.0182 is the standardized fraction lipid values for trophic level three (3) that is used to derive human health criteria and values.

(B) For trophic level four (4):

$$\text{Human Health BAF}_{TL4}^{HH} = [(\text{baseline BAF})(0.0310) + 1](f_{fd})$$

Where: 0.0310 is the standardized fraction lipid values for trophic level four (4) that is used to derive human health criteria and values.

(3) The wildlife BAFs for an organic chemical shall be calculated using the following equations:

(A) For trophic level three (3):

$$\text{Wildlife BAF}_{TL3}^{WL} = [(\text{baseline BAF})(0.0646) + 1](f_{fd})$$

Where: 0.0646 is the standardized fraction lipid value for trophic level three (3) that is used to derive wildlife criteria.

(B) For trophic level four (4):

$$\text{Wildlife BAF}_{TL4}^{WL} = [(\text{baseline BAF})(0.1031) + 1](f_{fd})$$

Where: 0.1031 is the standardized fraction lipid values for trophic level four (4) that is used to derive wildlife criteria.

(f) The following procedures shall be used to calculate human health and wildlife BAFs for inorganic chemicals:

(1) For inorganic chemicals, the baseline BAFs for trophic levels three (3) and four (4) are both assumed to equal the BCF determined for the chemical with fish, for example, the FCM is assumed to be one (1) for both trophic levels three (3) and four (4). However, an FCM greater than one (1) might be applicable to some metals, such as mercury, if, for example, an organometallic form of the metal biomagnifies.

(2) The following procedures shall be used to calculate human health BAFs for inorganic chemicals:

(A) Measured BAFs and BCFs used to determine human health BAFs for inorganic chemicals shall be based on edible tissue, such as muscle, of freshwater fish unless it is demonstrated that whole body BAFs or BCFs are similar to edible tissue BAFs or BCFs. BCFs and BAFs based on measurements of aquatic plants and invertebrates should not be used in the derivation of human health criteria and values.

(B) If one (1) or more field-measured baseline BAFs for an inorganic chemical are available from studies conducted in the Great Lakes system with the muscle of fish:

(i) for each trophic level, a species mean measured baseline BAF shall be calculated as the geometric mean if more than one (1) measured BAF is available for a given species; and

(ii) for each trophic level, the geometric mean of the species mean measured baseline BAFs shall be used as the human health BAF for that chemical.

(C) If an acceptable measured baseline BAF is not available for an inorganic chemical and one (1) or more acceptable edible portion laboratory measured BCFs are available for the chemical, a predicted baseline BAF shall be calculated by multiplying the geometric mean of the BCFs times a FCM. The FCM will be one (1.0) unless chemical-specific biomagnification data support using a multiplier other than one (1.0). The predicted baseline BAF shall be used as the human health BAF for that chemical.

(3) The following procedures shall be used to calculate wildlife BAFs for inorganic chemicals:	3.6	1.000	1.103	1.023
(A) Measured BAFs and BCFs used to determine wildlife BAFs for inorganic chemicals shall be based on whole body freshwater fish and invertebrate data unless it is demonstrated that edible tissue BAFs or BCFs are similar to whole body BAFs or BCFs.	3.7	1.000	1.128	1.033
(B) If one (1) or more field-measured baseline BAFs for an inorganic chemical are available from studies conducted in the Great Lakes system with whole body of fish or invertebrates:	3.8	1.000	1.161	1.042
(i) for each trophic level, a species mean measured baseline BAF shall be calculated as the geometric mean if more than one (1) measured BAF is available for a given species; and	3.9	1.000	1.202	1.054
(ii) for each trophic level, the geometric mean of the species mean measured baseline BAFs shall be used as the wildlife BAF for that chemical.	4.0	1.000	1.253	1.072
(C) If an acceptable measured baseline BAF is not available for an inorganic chemical and one (1) or more acceptable whole body laboratory measured BCFs are available for the chemical, a predicted baseline BAF shall be calculated by multiplying the geometric mean of the BCFs times a FCM. The FCM will be one (1.0) unless chemical-specific biomagnification data support using a multiplier other than one (1.0). The predicted baseline BAF shall be used as the wildlife BAF for that chemical.	4.1	1.000	1.315	1.096
(g) For both organic and inorganic chemicals, human health and wildlife BAFs for both trophic levels shall be reviewed for consistency with all available data concerning the bioaccumulation, bioconcentration, and metabolism of the chemical. For example, information concerning octanol-water partitioning, molecular size, or other physicochemical properties that might enhance or inhibit bioaccumulation should be considered for organic chemicals. BAFs derived in accordance with this methodology should be modified if changes are justified by available data.	4.2	1.000	1.380	1.13
(h) The following shall be used to obtain food chain multipliers:	4.3	1.000	1.491	1.178
	4.4	1.000	1.614	1.242
	4.5	1.000	1.766	1.334
	4.6	1.000	1.950	1.459
	4.7	1.000	2.175	1.633
	4.8	1.000	2.452	1.871
	4.9	1.000	2.780	2.193
	5.0	1.000	3.181	2.612
	5.1	1.000	3.643	3.162
	5.2	1.000	4.188	3.873
	5.3	1.000	4.803	4.742
	5.4	1.000	5.502	5.821
	5.5	1.000	6.266	7.079
	5.6	1.000	7.096	8.551
	5.7	1.000	7.962	10.209
	5.8	1.000	8.841	12.050
	5.9	1.000	9.716	13.964
	6.0	1.000	10.556	15.996
	6.1	1.000	11.337	17.783
	6.2	1.000	12.064	19.907
	6.3	1.000	12.691	21.677
	6.4	1.000	13.228	23.281
	6.5	1.000	13.662	24.604
	6.6	1.000	13.980	25.645
	6.7	1.000	14.223	26.363
	6.8	1.000	14.355	26.669
	6.9	1.000	14.388	26.669
	7.0	1.000	14.305	26.242
	7.1	1.000	14.142	25.468
	7.2	1.000	13.852	24.322
	7.3	1.000	13.474	22.856
	7.4	1.000	12.987	21.038
	7.5	1.000	12.517	18.967
	7.6	1.000	11.708	16.749
	7.7	1.000	10.914	14.388
	7.8	1.000	10.069	12.050
	7.9	1.000	9.162	9.840
	8.0	1.000	8.222	7.798
	8.1	1.000	7.278	6.012
	8.2	1.000	6.361	4.519
	8.3	1.000	5.489	3.311
	8.4	1.000	4.683	2.371
	8.5	1.000	3.949	1.663
	8.6	1.000	3.296	1.146
	8.7	1.000	2.732	0.778

  

Table 13-1			
Food-Chain Multipliers for Trophic Levels 2, 3, and 4			
Log K <sub>ow</sub>	T. L. 2	T. L. 3 <sup>a</sup>	T. L. 4
2.0	1.000	1.005	1.000
2.5	1.000	1.010	1.002
3.0	1.000	1.028	1.007
3.1	1.000	1.034	1.007
3.2	1.000	1.042	1.009
3.3	1.000	1.053	1.012
3.4	1.000	1.067	1.014
3.5	1.000	1.083	1.019

8.8	1.000	2.246	0.521
8.9	1.000	1.837	0.345
9.0	1.000	1.493	0.226

<sup>a</sup>The FCMs for trophic level 3 are the geometric mean of the FCMs for sculpin and alewife.  
(*Water Pollution Control Board; 327 IAC 2-1.5-13; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1392; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3377*)

### 327 IAC 2-1.5-14 Determination of human health criteria and values

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-4

Sec. 14. (a) This subsection establishes a procedure required when developing Tier I criteria and Tier II values for the protection of human health as follows:

(1) The goal of the human health criteria for the Great Lakes system is the protection of humans from unacceptable exposure to toxicants via consumption of contaminated fish and drinking water and from ingesting water as a result of participation in water-oriented recreational activities.

(2) The criteria developed shall provide a level of protection likely to be without appreciable risk of carcinogenic or noncarcinogenic effects. Criteria are a function of the level of designated risk or no adverse effect estimation, selection of data, and exposure assumptions. Ambient criteria for single carcinogens shall not be set at a level representing a lifetime upper-bound incremental risk greater than one (1) in one hundred thousand (100,000) of developing cancer using the hazard assessment techniques and exposure assumptions described in this subsection. Criteria affording protection from noncarcinogenic effects shall be established at levels that, taking into account uncertainties, are considered likely to be without an appreciable risk of adverse human health effects (such as acute, subchronic, and chronic toxicity, including reproductive and developmental effects) during a lifetime of exposure, using the risk assessment techniques and exposure assumptions described in this subsection.

(3) Chemical concentration levels in surface water protective of human health shall be derived based on either a Tier I or Tier II classification. The two (2) Tiers are primarily distinguished by the amount of toxicity data available for deriving the concentration levels and the quantity and quality of data on bioaccumulation.

(b) The best available toxicity data on the adverse health effects of a chemical and the best data on bioaccumulation factors shall be used when developing

human health Tier I criteria or Tier II values. The best available toxicity data shall include data from well-conducted epidemiologic or animal studies that provide, in the case of carcinogens, an adequate weight of evidence of potential human carcinogenicity and, in the case of noncarcinogens, a dose-response relationship involving critical effects biologically relevant to humans. Such information can be obtained from the U.S. EPA Integrated Risk Information System (IRIS) database, the scientific literature, and other informational databases, studies, or reports containing adverse health effects data of adequate quality for use in this procedure. Strong consideration shall be given to the most currently available guidance provided by IRIS in deriving criteria or values, supplemented with any recent data not incorporated into IRIS. When deviations from IRIS are anticipated or considered necessary, such actions shall be communicated to the U.S. EPA Reference Dose (RfD) or the Cancer Risk Assessment Verification Endeavor (CRAVE) workgroup. The best available bioaccumulation data shall include data from field studies and well-conducted laboratory studies.

(1) Tier I criteria and Tier II values shall be derived using the methodologies described in subsection (c)(1) when there is adequate evidence of potential human carcinogenic effects for a chemical. The U.S. EPA classification system for chemical carcinogens, which is described in the 1986 U.S. EPA Guidelines for Carcinogenic Risk Assessment (U.S. EPA, 1986) shall be used in determining whether adequate evidence of potential carcinogenic effects exists.

(A) Carcinogens are classified, depending on the weight of evidence, as either human carcinogens, probable human carcinogens, or possible human carcinogens. The human evidence is considered inadequate and therefore the chemical cannot be classified as a human carcinogen if one (1) of the two (2) following conditions exists:

(i) There are few pertinent data.

(ii) The available studies, while showing evidence of association, do not exclude chance, bias, or confounding and therefore a causal interpretation is not credible. The animal evidence is considered inadequate, and therefore the chemical cannot be classified as a probable or possible human carcinogen, when, because of major qualitative or quantitative limitations, the evidence cannot be interpreted as showing either the presence or absence of a carcinogenic effect.

(B) Chemicals are described as human carcinogens when there is sufficient evidence from epidemiological studies to support a causal association between exposure to the chemicals and cancer.

(C) Chemicals described as probable human carcinogens include chemicals for which the weight of evidence of human carcinogenicity based on epidemiological studies is limited. Limited human evidence is that which indicates that a causal interpretation is credible, but that alternative explanations, such as chance, bias, or confounding, cannot adequately be excluded. Probable human carcinogens are also agents for which there is sufficient evidence from animal studies and for which there is inadequate evidence or no data from epidemiologic studies.

(i) Sufficient animal evidence is provided by data that indicate that there is an increased incidence of malignant tumors or combined malignant and benign tumors:

(AA) in multiple species or strains;

(BB) in multiple experiments, for example, with different routes of administration or using different dose levels; or

(CC) to an unusual degree in a single experiment with regard to high incidence, unusual site or type of tumor, or early age at onset.

(ii) Additional evidence may be provided by data on dose-response effects, as well as information from short term tests (such as mutagenicity and genotoxicity tests that help determine whether the chemical interacts directly with DNA) or on chemical structure, metabolism, or mode of action.

(D) Possible human carcinogens are chemicals with limited evidence of carcinogenicity in animals in the absence of human data.

(i) Limited animal evidence is defined as data that suggest a carcinogenic effect but are limited because:

(AA) the studies involve a single species, strain, or experiment and do not meet criteria for sufficient evidence (see clause (C));

(BB) the experiments are restricted by inadequate dosage levels, inadequate duration of exposure to the agent, inadequate period of follow-up, poor survival, too few animals, or inadequate reporting; or

(CC) the studies indicate an increase in the incidence of benign tumors only.

(ii) More specifically, this group may include a wide variety of evidence, for example:

(AA) a malignant tumor response in a single, well-conducted experiment that does not meet conditions for sufficient evidence;

(BB) tumor response of marginal statistical significance in studies having inadequate design or reporting;

(CC) benign but not malignant tumors with an agent showing no response in a variety of short term tests for mutagenicity; and

(DD) response of marginal statistical significance in a tissue known to have a high or variable background rate.

(E) Weight of evidence of potential human carcinogenic effects sufficient to derive a Tier I human cancer criterion (HCC) shall generally include human carcinogens, and probable human carcinogens and may include, on a case-by-case basis, possible human carcinogens if studies have been well-conducted albeit based on limited evidence, when compared to studies used in classifying human and probable human carcinogens. The decision to use data on a possible human carcinogen for deriving Tier I criteria shall be a case-by-case determination. In determining whether to derive a Tier I HCC, additional evidence that shall be considered includes, but is not limited to, the following:

(i) Available information on mode of action, such as mutagenicity and genotoxicity (determinations of whether the chemical interacts directly with DNA).

(ii) Structure activity.

(iii) Metabolism.

(F) Weight of evidence of possible human carcinogenic effects sufficient to derive a Tier II human cancer value shall include those possible human carcinogens for which there are, at a minimum, data sufficient for quantitative risk assessment, but for which data are inadequate for Tier I criterion development due to a tumor response of marginal statistical significance or inability to derive a strong dose-response relationship. As with the use of data on possible human carcinogens in developing Tier I criteria, the decision to use data on possible human carcinogens to derive Tier II values shall be made on a case-by-case basis. In determining whether to derive Tier II human cancer values, additional evidence that shall be considered includes, but is not limited to, the following:

(i) Available information on mode of action such as mutagenicity and genotoxicity (determinations of whether the chemical interacts directly with DNA).

(ii) Structure activity.

(iii) Metabolism.

(2) All available toxicity data shall be evaluated considering the full range of possible health effects of a chemical, for example, acute/subacute, chronic/subchronic, and reproductive/developmental effects, in order to best describe the dose-response

relationship of the chemical, and to calculate human noncancer criteria and values that will protect against the most sensitive endpoint of toxicity. Although it is desirable to have an extensive database that considers a wide range of possible adverse effects, this type of data exists for a very limited number of chemicals. For many others, there is a range in quality and quantity of data available. To assure reliability of criteria and values, it is necessary to establish a minimum database with which to develop Tier I criteria or Tier II values. The following represent the minimum data sets necessary for this procedure:

(A) The minimum data set sufficient to derive a Tier I human noncancer criterion (HNC) shall include at least one (1) well-conducted epidemiologic study or animal study. A well-conducted epidemiologic study for a Tier I HNC must quantify the exposure level and demonstrate positive association between exposure to a chemical and an adverse effect in humans. A well-conducted study in animals must demonstrate a dose-response relationship involving one (1) or more critical effects biologically relevant to humans. For example, study results from an animal whose pharmacokinetics and toxicokinetics match those of a human would be considered most biologically relevant. Ideally, the duration of a study should span multiple generations of exposed test species or at least a major portion of the life span of one (1) generation. This type of data is currently very limited. By the use of uncertainty adjustments, shorter term studies such as ninety (90) day subchronic studies with evaluation of more limited effect may be used to extrapolate to longer exposures or to account for a variety of adverse effects. For Tier I criteria developed pursuant to this procedure, such a limited study must be conducted for at least ninety (90) days in rodents or ten percent (10%) of the life span of other appropriate test species and demonstrate a no observable adverse effect level (NOAEL). Chronic studies of one (1) year or longer in rodents or fifty percent (50%) of the life span or greater in other appropriate test species that demonstrate a lowest observable adverse effect level (LOAEL) may be sufficient for use in Tier I criterion derivation if the effects observed at the LOAEL were relatively mild and reversible as compared to effects at higher doses. This does not preclude the use of a LOAEL from a study of chronic duration with only one (1) or two (2) doses if the effects observed appear minimal when compared to effect levels observed at higher doses in other studies.

(B) When the minimum data for deriving Tier I criteria are not available to meet the Tier I data

requirements, a more limited database may be considered for deriving Tier II values. As with Tier I criteria, all available data shall be considered and ideally should address a range of adverse health effects with exposure over a substantial portion of the life span, or multiple generations, of the test species. When such data are lacking, it may be necessary to rely on less extensive data in order to establish a Tier II value. With the use of appropriate uncertainty factors to account for a less extensive database, the minimum data sufficient to derive a Tier II value shall include a NOAEL from at least one (1) well-conducted short term repeated dose study. This study shall be of at least twenty-eight (28) days duration, in animals demonstrating a dose-response, and involving effects biologically relevant to humans. Data from studies of longer duration, greater than twenty-eight (28) days, and LOAELs from these studies may be more appropriate in some cases for derivation of Tier II values. Use of a LOAEL should be based on consideration of the following information:

- (i) Severity of effect.
- (ii) Quality of the study.
- (iii) Duration of the study.

(3) The following procedures shall be used to determine minimum bioaccumulation data requirements:

(A) To be considered a Tier I cancer or noncancer human health criterion, along with satisfying the minimum toxicity data requirements of subdivisions (1)(E) and (2)(A), a chemical must have the following minimum bioaccumulation data:

- (i) For all organic chemicals either:
  - (AA) a field-measured BAF;
  - (BB) a BAF derived using the BSAF methodology; or
  - (CC) a chemical with a BAF less than one hundred twenty-five (125) regardless of how the BAF was derived.
- (ii) For all inorganic chemicals, including organometals such as mercury, either:
  - (AA) a field-measured BAF; or
  - (BB) a laboratory-measured BCF.

(B) A chemical is considered a Tier II cancer or noncancer human health value if it does not meet either the minimum toxicity data requirements of subdivisions (1)(E) and (2)(A) or the minimum bioaccumulation data requirements of clause (A).

(c) The fundamental components of the procedure to calculate Tier I criteria or Tier II values are the same. However, certain of the aspects of the procedure designed to account for short duration studies or other limitations in data are more likely to be relevant in

deriving Tier II values than Tier I criteria. The following procedures shall be used to develop Tier I criteria and Tier II values:

- (1) The following procedures apply for carcinogens:
  - (A) A nonthreshold mechanism of carcinogenesis shall be assumed unless biological data adequately demonstrate the existence of a threshold on a chemical specific basis.
  - (B) All appropriate human epidemiologic data and animal cancer bioassay data shall be considered. Data specific to an environmentally appropriate route of exposure shall be used. Oral exposure should be used preferentially over dermal and inhalation since, in most cases, the exposure routes of greatest concern are fish consumption and drinking water/incidental ingestion. The risk associated dose shall be set at a level corresponding to an incremental cancer risk of one (1) in one hundred thousand (100,000). If acceptable human epidemiologic data are available for a chemical, it shall be used to derive the risk associated dose. If acceptable human epidemiologic data are not available, the risk associated dose shall be derived from available animal bioassay data. Data from a species that is considered most biologically relevant to humans, that is, responds most like humans, is preferred where all other considerations regarding quality of data are equal. In the absence of data to distinguish the most relevant species, data from the most sensitive species tested, that is, the species showing a carcinogenic effect at the lowest administered dose, shall generally be used.
  - (C) When animal bioassay data are used and a nonthreshold mechanism of carcinogenicity is assumed, the data are fitted to a linearized multistage computer model. The upper bound ninety-five percent (95%) confidence limit on risk (or the lower ninety-five percent (95%) confidence limit on dose) at the one (1) in one hundred thousand (100,000) risk level shall be used to calculate a risk associated dose (RAD). Other models, including modifications or variations of the linear multistage model that are more appropriate to the available data may be used where scientifically justified.
  - (D) If the duration of the study is significantly less than the natural life span of the test animal, the slope may be adjusted on a case-by-case basis to compensate for latent tumors that were not expressed. In the absence of alternative approaches that compensate for study durations significantly less than lifetime, the commissioner may use the process described in the 1980 National Guidelines (see 45 FR 79352).
  - (E) A species scaling factor shall be used to account

for differences between test species and humans. It shall be assumed that milligrams per surface area per day is an equivalent dose between species (1986 U.S. EPA Guidelines for Carcinogenic Risk Assessment). All doses presented in milligram per kilogram body weight will be converted to an equivalent surface area dose by raising the milligram per kilogram dose to the two-thirds ( $\frac{2}{3}$ ) power. However, if adequate pharmacokinetic and metabolism studies are available, these data may be factored into the adjustment for species differences on a case-by-case basis.

(F) Additional data selection and adjustment decisions must also be made in the process of quantifying risk. Consideration must be given to tumor selection for modeling, for example, pooling estimates for multiple tumor types and identifying and combining benign and malignant tumors. All doses shall be adjusted to give an average daily dose over the study duration. Adjustments in the rate of tumor response must be made for early mortality in test species. The goodness-of-fit of the model to the data must also be assessed.

(G) When a linear, nonthreshold dose response relationship is assumed, the RAD shall be calculated using the following equation:

$$\text{RAD} = \frac{0.00001}{q_1^*}$$

Where:

RAD = risk associated dose in milligrams of toxicant per kilogram body weight per day (mg/kg/day).

0.00001 ( $1 \times 10^{-5}$ ) = incremental risk of developing cancer equal to one (1) in one hundred thousand (100,000).

$q_1^*$  = slope factor (mg/kg/day)<sup>-1</sup>.

(H) If human epidemiologic data or other biological data (animal) indicate that a chemical causes cancer via a threshold mechanism, the risk associated dose may, on a case-by-case basis, be calculated using a method that assumes a threshold mechanism is operative.

- (2) The following procedures apply for noncarcinogens:
  - (A) Noncarcinogens shall generally be assumed to have a threshold dose or concentration below which no adverse effects should be observed. Therefore, the Tier I criterion or Tier II value is the maximum water concentration of a substance at or below which a lifetime exposure from drinking the water, consuming fish caught in the water, and ingesting water as

a result of participating in water related recreation activities is likely to be without appreciable risk of deleterious effects. For some noncarcinogens, there may not be a threshold dose below which no adverse effects should be observed. Chemicals acting as genotoxic teratogens and germline mutagens are thought to possibly produce reproductive or developmental effects via a genetically linked mechanism which may have no threshold. Other chemicals also may not demonstrate a threshold. Criteria for these types of chemicals will be established on a case-by-case basis using appropriate assumptions reflecting the likelihood that no threshold exists.

(B) All appropriate human and animal toxicologic data shall be reviewed and evaluated. To the maximum extent possible, data most specific to the environmentally relevant route of exposure shall be used. Oral exposure data should be used preferentially over dermal and inhalation since, in most cases, the exposure routes of greatest concern are fish consumption and drinking water/incidental ingestion. When acceptable human data are not available, for example, well-conducted epidemiologic studies, animal data from species most biologically relevant to humans shall be used. In the absence of data to distinguish the most relevant species, data from the most sensitive animal species tested, such as the species showing a toxic effect at the lowest administered dose (given a relevant route of exposure), should generally be used.

(C) Minimum data requirements are specified in subsection (b)(2). The experimental exposure level representing the highest level tested at which no adverse effects were demonstrated (NOAEL) from studies satisfying the provisions of subsection (b)(2) shall be used for criteria calculations. In the absence of a NOAEL, the LOAEL from studies satisfying the provisions of subsection (b)(2) may be used if it is based on relatively mild and reversible effects.

(D) Uncertainty factors (UFs) shall be used to account for the uncertainties in predicting acceptable dose levels for the general human population based upon experimental animal data or limited human data as follows:

(i) A UF of ten (10) shall generally be used when extrapolating from valid experimental results from studies on prolonged exposure to average healthy humans. This ten (10) fold factor is used to protect sensitive members of the human population.

(ii) A UF of one hundred (100) shall generally be used when extrapolating from valid results of long term studies on experimental animals when results

of studies of human exposure are not available or are inadequate. In comparison to item (i), this represents an additional ten (10) fold UF in extrapolating data from the average animal to the average human.

(iii) A UF of up to one thousand (1,000) shall generally be used when extrapolating from animal studies for which the exposure duration is less than chronic, but greater than subchronic, for example, ninety (90) days or more in length, or when other significant deficiencies in study quality are present, and when useful long term human data are not available. In comparison to item (ii), this represents an additional UF of up to ten (10) fold for less than chronic, but greater than subchronic, studies.

(iv) A UF of up to three thousand (3,000) shall generally be used when extrapolating from animal studies for which the exposure duration is less than subchronic, for example, twenty-eight (28) days. In comparison to item (ii), this represents an additional UF of up to thirty (30) fold for less than subchronic studies. The level of additional uncertainty applied for less than chronic exposures depends on the duration of the study used relative to the lifetime of the experimental animal.

(v) An additional UF of between one (1) and ten (10) may be used when deriving a criterion from a LOAEL. This UF accounts for the lack of an identifiable NOAEL. The level of additional uncertainty applied may depend upon the severity and the incidence of the observed adverse effect.

(vi) An additional UF of between one (1) and ten (10) may be applied when there are limited effects data or incomplete subacute or chronic toxicity data, for example, reproductive or developmental data. The level of quality and quantity of the experimental data available as well as structure activity relationships may be used to determine the factor selected.

(vii) When deriving a UF in developing a Tier I criterion or Tier II value, the total uncertainty, as calculated following the procedures in items (i) through (vi) shall not exceed ten thousand (10,000) for Tier I criteria and thirty thousand (30,000) for Tier II values.

(E) All study results shall be converted, as necessary, to the standard unit for acceptable daily exposure of milligrams of toxicant per kilogram of body weight per day (mg/kg/day). Doses shall be adjusted for continuous exposure, that is, seven (7) days per week, twenty-four (24) hours per day.

(F) The acceptable daily exposure (ADE) shall be calculated using the following equation:

$$ADE = \frac{\text{NOAEL (or LOAEL)}}{\text{UF}}$$

Where: ADE = Acceptable daily exposure in milligrams of toxicant per kilogram body weight per day (mg/kg/day).  
 NOAEL = The no observed adverse effect (or level or lowest observed adverse effect level as determined in accordance with clause (C)).  
 LOAEL) effect level as determined in accordance with clause (C).  
 UF = The product of the uncertainty factors as determined in accordance with clause (D).

(3) The following procedures shall be used to derive criteria and values:

(A) The following represent the standard exposure assumptions used to calculate Tier I criteria and Tier II values for carcinogens and noncarcinogens. Different levels of exposure may be used where appropriate in deriving site-specific criteria pursuant to section 16 of this rule:

- (i) BW = Body weight of an average human (BW = 70 kilograms).
- (ii) WC<sub>d</sub> = Per capita water consumption, both drinking and incidental exposure, for surface waters classified as public water supplies = two (2) liters per day; or
- (iii) WC<sub>r</sub> = Per capita incidental daily water ingestion for surface waters not used as human drinking water sources = 0.01 liters per day.
- (iv) FC = Per capita daily consumption of regionally caught freshwater fish = 0.015 kg/day (0.0036 kilograms per day for trophic level three (3) and 0.0114 kilograms per day for trophic level four (4)).
- (v) BAF = Bioaccumulation factor for trophic level three (3) and trophic level four (4) as derived using the BAF methodology in section 13 of this rule.

(B) The Tier I human cancer criteria or Tier II values shall be calculated as follows:

$$\text{HCV} = \frac{\text{RAD} \times \text{BW}}{\text{WC} + [(\text{FC}_{\text{TL3}} \times \text{BAF}_{\text{TL3}}^{\text{HH}}) + (\text{FC}_{\text{TL4}} \times \text{BAF}_{\text{TL4}}^{\text{HH}})]}$$

Where: HCV = Human cancer value in milligrams per liter (mg/L).

RAD = Risk associated dose in milligrams toxicant per kilogram body weight per day (mg/kg/day) that is associated with a lifetime incremental cancer risk equal to one (1) in one hundred thousand (100,000).

BW = Weight of an average human (BW = 70 kilograms).

WC<sub>d</sub> = Per capita water consumption, both drinking and incidental exposure, for surface waters classified as public water supplies = two (2) liters per day; or

WC<sub>r</sub> = Per capita incidental daily water ingestion for surface waters not used as human drinking water sources = 0.01 liters per day.

FC<sub>TL3</sub> = Mean consumption of trophic level three (3) of regionally caught freshwater fish = 0.0036 kilograms per day.

FC<sub>TL4</sub> = Mean consumption of trophic level four (4) of regionally caught freshwater fish = 0.0114 kilograms per day.

BAF<sub>TL3</sub><sup>HH</sup> = Bioaccumulation factor for trophic level three (3) fish as derived using the BAF methodology in section 13 of this rule.

BAF<sub>TL4</sub><sup>HH</sup> = Bioaccumulation factor for trophic level four (4) fish as derived using the BAF methodology in section 13 of this rule.

(C) The Tier I human noncancer criteria or Tier II values shall be calculated as follows:

$$\text{HNV} = \frac{\text{ADE} \times \text{BW} \times \text{RSC}}{\text{WC} + [(\text{FC}_{\text{TL3}} \times \text{BAF}_{\text{TL3}}^{\text{HH}}) + (\text{FC}_{\text{TL4}} \times \text{BAF}_{\text{TL4}}^{\text{HH}})]}$$

Where: HNV = Human noncancer value in milligrams per liter (mg/L).

ADE = Acceptable daily exposure in milligrams toxicant per kilogram body weight per day (mg/kg/day).

RSC = Relative source contribution factor of eight-tenths (0.8). An RSC derived from actual exposure data may be developed using the methodology outlined by the 1980 National Guidelines (see 45 FR 79354).

BW = Weight of an average human (BW = 70 kilograms).

WC<sub>d</sub> = Per capita water consumption, both drinking and incidental exposure, for surface waters classified as public water supplies = two (2) liters per day; or

- $WC_r$  = Per capita incidental daily water ingestion for surface waters not used as human drinking water sources = 0.01 liters/day.
- $FC_{TL3}$  = Mean consumption of trophic level three (3) fish by regional sport fishers of regionally caught freshwater fish = 0.0036 kilograms per day.
- $FC_{TL4}$  = Mean consumption of trophic level four (4) fish by regional sport fishers of regionally caught freshwater fish = 0.0114 kilograms per day.
- $BAF_{TL3}^{HH}$  = Human health bioaccumulation factor for edible portion of trophic level three (3) fish as derived using the BAF methodology in section 13 of this rule.
- $BAF_{TL4}^{HH}$  = Human health bioaccumulation factor for edible portion of trophic level four (4) fish as derived using the BAF methodology in section 13 of this rule.

*(Water Pollution Control Board; 327 IAC 2-1.5-14; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1398; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3377)*

### 327 IAC 2-1.5-15 Determination of wildlife criteria

Authority: IC 13-14-8; IC 13-14-9; IC 13-18-3

Affected: IC 13-18-4

Sec. 15. (a) This section establishes a procedure that is required when developing Tier I wildlife criteria for bioaccumulative chemicals of concern (BCCs) as follows:

- (1) This method may be used for the development of Tier I criteria or Tier II values for pollutants other than BCCs for which the commissioner determines:
    - (A) Tier I criteria or Tier II values are necessary for the protection of wildlife in the Great Lakes basin; and
    - (B) that this method is applicable to the pollutant.
  - (2) In the event that this procedure is used to develop criteria for pollutants other than BCCs, the procedure for deriving bioaccumulation factors under section 13 of this rule must be used. For chemicals that do not biomagnify to the extent of BCCs, it may be appropriate to select different representative species that are better examples of species with the highest exposures for the given chemical. In addition, section 16 of this rule describes the procedures for calculating site-specific wildlife criteria.
- (b) The following procedures shall be used to calculate

wildlife values for Tier I criteria:

- (1) Tier I wildlife values are to be calculated using the following equation:

$$WV = \frac{TD}{UF_A \times UF_S \times UF_L} \times Wt$$

$$WV = \frac{TD}{W + \sum (F_{TLi} \times BAF_{TLi}^{WL})}$$

- Where:
- WV = Wildlife value in milligrams of substance per liter (mg/L).
  - TD = Test dose (TD) in milligrams of substance per kilograms per day (mg/kg-d) for the test species. This shall be either a NOAEL or a LOAEL.
  - $UF_A$  = Uncertainty factor (UF) for extrapolating toxicity data across species (unitless). A species-specific UF shall be selected and applied to each representative species, consistent with the equation.
  - $UF_S$  = UF for extrapolating from subchronic to chronic exposures (unitless).
  - $UF_L$  = UF for LOAEL to NOAEL extrapolations (unitless).
  - Wt = Average weight in kilograms (kg) for the representative species.
  - W = Average daily volume of water consumed in liters per day (l/d) by the representative species.
  - $F_{TLi}$  = Average daily amount of food consumed from trophic level i in kilograms per day (kg/d) by the representative species.
  - $BAF_{TLi}^{WL}$  = Bioaccumulation factor (BAF) for wildlife food in trophic level i in liters per kilogram (l/kg), developed using the BAF methodology in section 13 of this rule. For consumption of piscivorous birds by other birds, for example, herring gull by eagles, the BAF is derived by multiplying the trophic level three (3) BAF for fish by a biomagnification factor to account for the biomagnification from fish to the consumed birds.
- (2) For bioaccumulative chemicals, piscivorous species are identified as the focus of concern for wildlife

criteria development in the Great Lakes. This methodology identifies three (3) avian species (eagle, kingfisher, and herring gull) and two (2) mammalian species (mink and otter) as representative species for protection. The TD obtained from toxicity data for each taxonomic class is used to calculate WVs for each of the five (5) representative species.

(3) The avian WV is the geometric mean of the WVs calculated for the three (3) representative avian species. The mammalian WV is the geometric mean of the WVs calculated for the two (2) representative mammalian species. The lower of the mammalian and avian WVs must be selected as the Great Lakes wildlife criteria (GLWC).

(c) The following procedures shall be used to obtain the parameters of the effect component of the wildlife criteria procedure:

(1) A Test Dose (TD) value is required for criterion calculation. To derive a Tier I criterion for wildlife, the data set shall provide enough data to generate a subchronic or chronic dose response curve for any given substance for both mammalian and avian species.

(A) In reviewing the toxicity data available that meet the minimum data requirements for each taxonomic class, the following order of preference shall be applied to select the appropriate TD to be used for calculation of individual WVs:

(i) Data from peer-reviewed field studies of wildlife species take precedence over other types of studies, where such studies are of adequate quality. An acceptable field study must be of subchronic or chronic duration, provide a defensible, chemical specific dose response curve in which cause and effect are clearly established, and assess acceptable endpoints as defined in this rule.

(ii) When acceptable wildlife field studies are not available, or determined to be of inadequate quality, the needed toxicity information may come from peer reviewed laboratory studies. When laboratory studies are used, preference shall be given to laboratory studies with wildlife species over traditional laboratory animals to reduce uncertainties in making interspecies extrapolations.

(B) All available laboratory data and field studies shall be reviewed to corroborate the final GLWC, to assess the reasonableness of the toxicity value used, and to assess the appropriateness of any UFs that are applied. When evaluating the studies from which a test dose is derived in general, the following requirements must be met:

(i) The mammalian data must come from at least one (1) well-conducted study of ninety (90) days or

greater designed to observe subchronic or chronic effects as defined in this rule.

(ii) The avian data must come from at least one well-conducted study of twenty-eight (28) days or greater designed to observe subchronic or chronic effects as defined in this rule.

(iii) In reviewing the studies from which a TD is derived for use in calculating a WV, studies involving exposure routes other than oral may be considered only when an equivalent oral daily dose can be estimated and technically justified because the criteria calculations are based on an oral route of exposure.

(iv) In assessing the studies that meet the minimum data requirements, preference should be given to studies that assess effects on developmental or reproductive endpoints because, in general, these are more important endpoints in ensuring that a population's productivity is maintained.

(2) In selecting data to be used in the derivation of WVs, the evaluation of acceptable endpoints, as defined in this rule, will be the primary selection criterion. All data not part of the selected subset may be used to assess the reasonableness of the toxicity value and the appropriateness of the UFs that are applied.

(A) If more than one (1) TD value is available within a taxonomic class, based on different endpoints of toxicity, that TD, which is likely to reflect best potential impacts to wildlife populations through resultant changes in mortality or fecundity rates, shall be used for the calculation of WVs.

(B) If more than one (1) TD is available within a taxonomic class, based on the same endpoint of toxicity, the TD from the most sensitive species shall be used.

(C) If more than one (1) TD based on the same endpoint of toxicity is available for a given species, the TD for that species shall be calculated using the geometric mean of those TDs.

(3) The following exposure assumptions are made in the determination of the TD:

(A) In those cases in which a TD is available in units other than milligrams of substance per kilograms per day (mg/kg/d), clauses (B) and (C) shall be used to convert the TD to the appropriate units prior to calculating a WV.

(B) If the TD is given in milligrams of toxicant per liter of water consumed by the test animals (mg/L), the TD shall be multiplied by the daily average volume of water consumed by the test animals in liters per day (L/d) and divided by the average weight of the test animals in kilograms (kg).

(C) If the TD is given in milligrams of toxicant per kilogram of food consumed by the test animals (mg/kg), the TD shall be multiplied by the average amount of food in kilograms consumed daily by the test animals (kg/d) and divided by the average weight of the test animals in kilograms (kg).

(4) Drinking and feeding rates shall be determined as follows:

(A) When drinking and feeding rates and body weight are needed to express the TD in milligrams of substance per kilograms per day (mg/kg/d), they are obtained from the study from which the TD was derived. If not already determined, body weight and drinking and feeding rates are to be converted to a wet weight basis.

(B) If the study does not provide the needed values, the values shall be determined from appropriate scientific literature. When scientific literature does not contain exposure information for the species used in a given study, either the allometric equations which are presented in clauses (C) and (D), or the exposure estimation methods presented in Chapter 4 of the Wildlife Exposure Factors Handbook (U.S. EPA, 1993), shall be applied to approximate the needed feeding or drinking rates. The choice of the methods described in this clause is at the discretion of the commissioner.

(C) For mammalian species, the general allometric equations are:

$$(i) F = (0.0687)(Wt)^{0.82}$$

Where: F = Feeding rate of mammalian species in kilograms per day (kg/d) dry weight.

Wt = Average weight in kilograms (kg) of the test animals.

$$(ii) W = (0.099)(Wt)^{0.90}$$

Where: W = Drinking rate of mammalian species in liters per day (L/d).

Wt = Average weight in kilograms (kg) of the test animals.

(D) For avian species, the general allometric equations are:

$$(i) F = (0.0582)(Wt)^{0.65}$$

Where: F = Feeding rate of avian species in kilograms per day (kg/d) dry weight.

Wt = Average weight in kilograms (kg) of the test animals.

$$(ii) W = (0.059)(Wt)^{0.67}$$

Where: W = Drinking rate of avian species in liters per day (L/d).

Wt = Average weight in kilograms (kg) of the test animals.

(5) In those cases in which a NOAEL is unavailable as the TD and a LOAEL is available, the LOAEL may be used to estimate the NOAEL. If used, the LOAEL shall be divided by an UF to estimate a NOAEL for use in deriving WVs. The value of the UF shall not be less than one (1) and should not exceed ten (10), depending on the dose-response curve and any other available data, and is represented by  $UF_L$  in the equation expressed in subsection (b)(1).

(6) In instances where only subchronic data are available, the TD may be derived from subchronic data. In such cases, the TD shall be divided by an UF to extrapolate from subchronic to chronic levels. The value of the UF shall not be less than one (1) and should not exceed ten (10), and is represented by  $UF_S$  in the equation expressed in subsection (b)(1). This factor is to be used when assessing highly bioaccumulative substances where toxicokinetic considerations suggest that a bioassay of limited length underestimates chronic effects.

(7) The following procedure shall be used to determine an uncertainty factor for interspecies extrapolations ( $UF_A$ ):

(A) The selection of the  $UF_A$  shall be based on the available toxicological data and on available data concerning the physicochemical, toxicokinetic, and toxicodynamic properties of the substance in question and the amount and quality of available data. This value is an UF that is intended to account for differences in toxicological sensitivity among species.

(B) For the derivation of Tier I criteria, a  $UF_A$  shall not be less than one (1) and should not exceed one hundred (100), and shall be applied to each of the five (5) representative species, based on existing data and best professional judgement. The value of  $UF_A$  may differ for each of the representative species.

(C) For Tier I wildlife criteria, the  $UF_A$  shall be used only for extrapolating toxicity data across species within a taxonomic class, except as provided in this clause. The Tier I  $UF_A$  is not intended for interclass extrapolations because of the poorly defined comparative toxicokinetic and toxicodynamic parameters between mammals and birds. However, an interclass extrapolation employing a  $UF_A$  may be used for a given chemical if it can be supported by a validated biologically based dose response model or by an analysis of interclass toxicological data, considering acceptable endpoints, for a chemical analog that acts under the same mode of toxic action.

(d) The following procedures shall be used to determine the parameters of the exposure component of the

wildlife criteria procedure:

(1) The body weights (Wt), feeding rates ( $F_{Ti}$ ), drinking rates (W), and trophic level dietary composition, as food ingestion rate and percent in diet, for each of the five (5) representative species are presented in Table 15-1 in subsection (e).

(2) The procedure for the determination of

bioaccumulation factors is contained under section 13 of this rule. Trophic levels three (3) and four (4) BAFs are used to derive WVs because these are the trophic levels at which the representative species feed.

(e) The following exposure parameters for the five (5) representative species identified for protection shall be used:

Table 15-1  
Exposure Parameters for the Five Representative Species Identified for Protection

Species	Adult Body Weight (kg)	Water Ingestion Rate (L/day)	Food Ingestion Rate of Prey in Each Trophic Level (kg/day)	Trophic Level of Prey (Percent of Diet)
Mink	0.80	0.081	TL3: 0.159 Other: 0.0177	TL3: 90% Other: 10%
Otter	7.4	0.600	TL3: 0.977 TL4: 0.244	TL3: 80% TL4: 20%
Kingfisher	0.15	0.017	TL3: 0.0672	TL3: 100%
Herring gull	1.1	0.063	TL3: 0.192 TL4: 0.0480 Other: 0.0267	<u>Fish: 90%</u> TL3: 80% TL4: 20% Other: 10%
Bald eagle	4.6	0.160	TL3: 0.371 TL4: 0.0929 PB: 0.0283 Other: 0.0121	<u>Fish: 92%</u> TL3: 80% TL4: 20% <u>Birds: 8%</u> PB: 70% nonaquatic: 30%

TL3 = trophic level three fish  
TL4 = trophic level four fish  
PB = piscivorous birds  
Other = nonaquatic birds and mammals

(Water Pollution Control Board; 327 IAC 2-1.5-15; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1404; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378)

### 327 IAC 2-1.5-16 Site-specific modifications to Tier I criteria and Tier II values

Authority: IC 13-14-8; IC 13-14-9; IC 13-18-3

Affected: IC 13-15-4-1; IC 13-18-4

Sec. 16. (a) Site-specific modifications of criteria and values in this subsection must be protective of designated uses and aquatic life, wildlife, or human health. In addition, any site-specific modifications that result in less stringent criteria must be based on a sound scientific rationale and shall not be likely to jeopardize the continued existence of endangered or threatened species listed or proposed under Section 4 of the Endangered Species Act (ESA) or result in the destruction or adverse modification of such species' critical habitat. More stringent modifications shall be developed to protect endangered or threatened species listed or proposed under Section 4 of the ESA, where such modifications are necessary to

ensure that water quality is not likely to jeopardize the continued existence of such species or result in the destruction or adverse modification of such species' critical habitat. More stringent modifications may also be developed to protect candidate (C1) species being considered by the U.S. Fish and Wildlife Service (FWS) for listing under Section 4 of the ESA, where such modifications are necessary to protect such species. Criteria and values may be modified on a site-specific basis to reflect local environmental conditions as restricted by the following provisions:

(1) Aquatic life criteria or values may be modified on a site-specific basis as follows:

(A) Aquatic life criteria or values may be modified on a site-specific basis to provide an additional level of protection.

(B) Less stringent site-specific modifications to

chronic or acute aquatic life criteria or values may be developed when either of the following conditions apply:

- (i) The local water quality characteristics such as pH, hardness, temperature, or color alter the biological availability or toxicity of a pollutant.
- (ii) The sensitivity of the aquatic organisms species that occur at the site differs from the species actually tested in developing the criteria.

(C) Less stringent modifications also may be developed to acute and chronic aquatic life criteria or values to reflect local physical and hydrological conditions.

(D) Any modifications to protect threatened or endangered aquatic species required by this subsection may be accomplished using either of the two (2) following procedures:

- (i) If the Species Mean Acute Value (SMAV) for a listed or proposed species, or for a surrogate of such species, is lower than the calculated Final Acute Value (FAV), such lower SMAV may be used instead of the calculated FAV in developing site-specific modified criteria.
- (ii) The site-specific criteria may be calculated using the recalculation procedure for site-specific modifications.

(2) Wildlife criteria or values may be modified on a site-specific basis as follows:

(A) Wildlife water quality criteria may be modified on a site-specific basis to provide an additional level of protection.

(B) Less stringent site-specific modifications to wildlife water quality criteria may be developed when a site-specific bioaccumulation factor (BAF) is derived that is lower than the system-wide BAF derived under section 13 of this rule. The modification must consider both the mobility of prey organisms and wildlife populations in defining the site for which criteria are developed. In addition, there must be a showing that the following conditions are met:

- (i) Any increased uptake of the toxicant by prey species utilizing the site will not cause adverse effects in wildlife populations.
- (ii) Wildlife populations utilizing the site or downstream waters will continue to be fully protected.

(C) Any modification to protect endangered or threatened wildlife species required by this subsection must consider both the mobility of prey organisms and wildlife populations in defining the site for which criteria are developed, and may be accomplished by using the following recommended method:

- (i) The procedure presented in section 15 of this

rule is used, substituting appropriate species-specific toxicological, epidemiological, or exposure information, including changes to the BAF.

(ii) An interspecies uncertainty factor of one (1) shall be used where epidemiological data are available for the species in question. If necessary, species-specific exposure parameters may be derived as presented in section 15 of this rule.

(iii) An intraspecies uncertainty factor, to account for protection of individuals within a wildlife population, shall be applied in the denominator of the effect part of the wildlife equation in section 15 of this rule in a manner consistent with the other uncertainty factors described in section 15 of this rule.

(iv) The resulting wildlife value for the species in question should be compared to the two (2) class specific wildlife values that were previously calculated, and the lowest of the three (3) shall be selected as the site-specific modification.

(3) BAFs may be modified on a site-specific basis as follows:

(A) BAFs may be modified on a site-specific basis to larger values where reliable data show that local bioaccumulation is greater than the system-wide value.

(B) BAFs may be modified on a site-specific basis to lower values, where scientifically defensible, if:

- (i) the fraction of the total chemical that is freely dissolved in the ambient water is different than that used to derive the system-wide BAFs, that is, the concentrations of particulate organic carbon and the dissolved organic carbon are different than those used to derive the system-wide BAFs;
- (ii) input parameters of the model, such as the structure of the aquatic food web and the disequilibrium constant, are different at the site than those used to derive the system-wide BAFs;
- (iii) the percent lipid of aquatic organisms that are consumed and occur at the site is different than that used to derive the system-wide BAFs; or
- (iv) site-specific field-measured BAFs or biota-sediment accumulation factor (BSAFs) are determined.

(C) If site-specific BAFs are derived, they shall be derived using section 13 of this rule.

(D) Any more stringent modifications to protect threatened or endangered species required by this subsection shall be derived using procedures set forth in the methodology in section 13 of this rule.

(4) Human health criteria or values may be modified on a site-specific basis as follows:

(A) Human health criteria or values may be modified

on a site-specific basis to provide an additional level of protection. Human health criteria or values shall be modified on a site-specific basis to provide additional protection appropriate for highly exposed subpopulations. Any person may request the commissioner to develop a site-specific modification of a human health criterion or value to make it more stringent. The commissioner shall develop the site-specific modification of the human health criterion or value to make it more stringent when either of the following conditions apply:

(i) Local fish consumption rates are higher than the rate used to derive a human health criterion or value applicable under section 14 of this rule.

(ii) A site-specific BAF is derived that is higher than that used in deriving a human health criterion of value under section 14 of this rule.

(B) Less stringent site-specific modifications to human health criteria or values may be developed when any of the following conditions apply:

(i) Local fish consumption rates are lower than the rate used in deriving human health criteria or values under section 14 of this rule.

(ii) A site-specific BAF is derived that is lower than that used in deriving human health criteria or values under section 14 of this rule.

(C) Local fish consumption rates referenced in clauses (A)(i) and (B)(i) shall be determined by a fish consumption survey applicable to the site.

(b) Upon receipt of a request for a site-specific modification of a water quality criterion or value, the commissioner shall provide notice, request comment, and, if requested, schedule and hold a public meeting on the application in accordance with 327 IAC 5-2-11.2.

(c) When the commissioner proposes a site-specific modification to a criterion or value as allowed in this section, the tentative decision shall be incorporated into a draft permit which is made available for public comment under 327 IAC 5-3-9. The commissioner shall notify the other Great Lakes states of such a proposal and, for less stringent criteria, shall supply appropriate supporting documentation for the modification.

(d) A final decision regarding a site-specific modification to a criterion or value shall be incorporated into the final NPDES permit. In addition, a reopening clause shall be included in the NPDES permit allowing the permit to be modified or revoked and reissued to revise the WQBELs based on the modified criterion or value if the board fails to adopt or the U.S. EPA fails to approve the modified criterion or value.

(e) All site-specific modifications to water quality criteria shall be incorporated into these water quality standards rules during the next revision of the water

quality standards. The U.S. EPA will have the opportunity to review the modified criterion or value upon submittal of the revised water quality standards rules adopted by the board. (*Water Pollution Control Board; 327 IAC 2-1.5-16; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1407; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378*)

### **327 IAC 2-1.5-17 Variances from water quality standards for point sources**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 4-22-2; IC 13-11-2-24; IC 13-13-5; IC 13-18-4; IC 13-18-7; IC 13-23-13; IC 13-24-1; IC 13-25-5; IC 13-30-2-1

Sec. 17. (a) A permit applicant or permittee may apply to the commissioner for a variance from the water quality standard used to derive a water quality-based effluent limitation (WQBEL) contained in a NPDES permit for a specific substance. The application for such a variance shall be submitted in accordance with 327 IAC 5-3-4.1. The following do not constitute an undue hardship or burden, therefore, a variance to a water quality standard shall not be granted:

(1) that would likely jeopardize the continued existence of any endangered or threatened species listed under Section 4 of the Endangered Species Act (ESA) or result in the destruction or adverse modification of such species' critical habitat;

(2) if standards will be attained by implementing effluent limits required under Sections 301(b) and 306 of the Clean Water Act (CWA) and by the permittee implementing cost-effective and reasonable best management practices for nonpoint source control at the facility; or

(3) to recommencing dischargers or new Great Lakes dischargers, unless the new Great Lakes discharge occurs as the result of:

(A) a response action pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended (as defined in IC 13-11-2-24);

(B) a corrective action pursuant to the Resource Conservation and Recovery Act (RCRA), as amended (as defined in IC 13-13-5); or

(C) an action pursuant to similar federal or state authorities, including, but not limited to:

(i) an underground storage tank (UST) corrective action under IC 13-23-13;

(ii) a remediation of petroleum releases under IC 13-24-1;

(iii) a voluntary remediation under IC 13-25-5; or

(iv) an abatement or correction of any polluted condition under IC 13-18-7.

(b) The commissioner may approve all or part of a requested variance, or modify and approve a requested variance, if the permit applicant demonstrates that implementing a proposed methodology, that includes any production processes, wastewater treatment technology, or combination thereof used to reduce pollutants discharged in the wastewater from a facility, as identified under 327 IAC 5-3-4.1(b)(2)(A), will cause an undue hardship or burden upon the applicant.

(c) In making a determination on a variance application, the commissioner shall balance the increased risk to human health and the environment if the variance is granted against the hardship or burden upon the applicant if the variance is not granted so that the commissioner is able to conclude that any increased risk is consistent with the protection of the public health, safety, and welfare. In balancing these factors, the commissioner shall consider the following to determine if the hardship or burden upon the applicant is undue:

(1) For variance applications, except those governed under subdivision (2), the following shall be considered:

(A) The cost and cost effectiveness of pollutant removal by implementing the methodologies proposed by the applicant and the methodology capable of attaining the WQBEL.

(B) The reduction in concentrations and loadings of pollutants attainable by the methodologies proposed by the applicant as compared with the reduction attainable by use of the methodology capable of attaining the WQBEL.

(C) The impact of the proposed methodologies and the methodology capable of attaining the WQBEL on the price of the goods or services provided by the applicant.

(D) Information on the relative price of goods or services in the same market as the applicant.

(E) The overall impact of attaining the WQBEL and implementing the proposed methodologies on employment at the facility.

(F) Information on the type and magnitude of adverse or beneficial environmental impacts, including the net impact on the receiving water, resulting from the proposed methodologies that could be applied to the control of the substance for which a variance is applied. This information shall include the extent of any increased risk to human health and the environment associated with each of the proposed methodologies.

(G) Other relevant information requested by the commissioner or supplied by the applicant or the public.

(2) For variance applications where the necessity for the variance is a short term, temporary discharge

resulting from the dredging of contaminated sediments from a waterbody and is conducted under any of the federal or state authorities listed under subsection (a)(3), the following shall be considered:

(A) The cost and cost effectiveness of pollutant removal by implementing the methodologies proposed by the applicant and the methodology capable of attaining the WQBEL.

(B) The reduction in concentrations and loadings of pollutants attainable by the methodologies proposed by the applicant as compared with the reduction attainable by use of the methodology capable of attaining the WQBEL.

(C) Information on the type and magnitude of adverse or beneficial environmental impacts, including the net impact on the receiving water, resulting from the proposed methodologies that could be applied to the control of the substance for which a variance is applied. This information shall include the extent of any increased risk to human health and the environment associated with each of the proposed methodologies. In considering the information required by this clause, the commissioner shall also consider that the action is the following:

(i) For the protection, maintenance, or restoration of the environment.

(ii) Short term and temporary.

(D) Other relevant information requested by the commissioner or supplied by the applicant or the public.

(d) The commissioner may grant the variance when the requirements of subsections (b) and (c) are met.

(e) A determination to grant or deny a requested variance shall be made in accordance with 327 IAC 5-3-4.1. In making this determination, the commissioner may also consider other information available to the agency or supplied by the applicant or the public.

(f) A variance applies only to the permit applicant requesting the variance and only to the substance specified in the variance application. The granting of a variance does not imply or require that the water quality standard corresponding to the variance be modified through a rulemaking in accordance with IC 4-22-2 and IC 13-14-9.

(g) A variance or any renewal thereof shall not be granted for a term greater than that allowed by IC 13-14-8. Notwithstanding the time at which the application for a variance is submitted under 327 IAC 5-3-4.1, a variance shall not be granted for a term greater than the term remaining under the permit to which the variance is attached.

(h) Neither the filing of a variance application nor the granting of a variance shall be grounds for the staying or

dismissing of or a defense in a pending enforcement action. A variance shall be prospective only. (*Water Pollution Control Board; 327 IAC 2-1.5-17; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1409; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378*)

**327 IAC 2-1.5-18 Designation of a waterbody as a limited use water or an outstanding state resource water**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-4

Sec. 18. (a) A person who wishes to propose that a waterbody within the Great Lakes system be considered by the commissioner for designation as a limited use or outstanding state resource water shall submit to the commissioner a written proposal:

- (1) identifying the waterbody and the proposed designation stating the rationale for the proposal; and
  - (2) including any other supporting documentation.
- (b) The commissioner shall evaluate the proposal considering the following:
- (1) Waters that meet the following conditions may be considered for designation as a limited use water:
    - (A) Waters that have:
      - (i) naturally poor physical characteristics (that is, suitable habitat to support a well-balanced fish community is severely limited or absent) including lack of sufficient flow ( $Q_{7,10}$  low flow upstream of any existing or proposed discharge of one-tenth (0.1) cubic foot per second or less);
      - (ii) naturally poor chemical quality;
      - (iii) irreversible man-induced conditions that came into existence prior to January 1, 1983; and
      - (iv) no unique or exceptional features.
    - (B) No potential or existing uses made of the waterbody by people in the immediate area would be adversely affected by a limited use designation.
    - (C) The waterbody has been evaluated by a use attainability analysis.
  - (2) Factors that relate to outstanding state resource water designations may include, but are not limited to, the following:
    - (A) The presence of a unique or exceptional habitat or species in the waterbody.
    - (B) The presence of a rare or endangered species in the waterbody.
    - (C) The presence of exceptional aesthetic quality in the immediate environs of the waterbody.
    - (D) The waterbody is within the boundaries of or flows through a designated natural area, nature preserve, or state or national park or forest.
    - (E) The waterbody supports an excellent sports

fishery.

(F) The waterbody possesses exceptional quality.

(G) Intensive recreational use is made of the waterbody.

(H) Designation as a natural, scenic, or recreational waterbody by the Indiana department of natural resources.

Irrespective of these factors, the commissioner's evaluation will generally be a case-by-case determination using information obtained from an on-site evaluation. If appropriate, the commissioner shall consult with the Indiana department of natural resources concerning the designation of a waterbody as an outstanding state resource water.

(c) After completion of the evaluation under subsection (b), if the commissioner determines that reclassification of the waterbody is appropriate, the commissioner shall initiate a rulemaking to include the waterbody either as a limited use water or an outstanding state resource water under section 19 of this rule.

(d) All waters that are designated as a limited use water under section 19(a) of this rule must be evaluated for restoration and upgrading at each triennial review of this rule.

(e) The department shall initiate a special designations rulemaking in accordance with the following:

(1) The special designations rulemaking shall be initiated for the purposes of:

- (A) determining whether any other designations in addition to outstanding state resource waters, high quality waters, limited use waters, and outstanding national resource waters should be established;
- (B) determining the appropriate factors to consider in designating a waterbody;
- (C) identifying a list of waterbodies for each special designation; and
- (D) specifying antidegradation implementation procedures for outstanding state resource waters, outstanding national resource waters, and for any other newly established designation.

(2) Prior to the presentation of proposed rules on special designations to the board, the department shall consult with other state and federal agencies, and with interested persons within Indiana as appropriate. The department shall provide information to the public on the history, intent, and importance of the current outstanding state resource water designation and the list of outstanding state resource waters.

(3) The department shall seek comment, as part of the second notice on special designations, on adding waterbodies to the list of outstanding national resource waters, on the specific interim antidegradation implementation procedures included in 327 IAC 5-2-11.7

for outstanding state resource waters, and on procedures for addressing increases not included in the specific exceptions listed in 327 IAC 5-2-11.7(c)(2).

(4) The following statement shall be included in the second notice and shall be used as a guide during the special designation rulemaking, "The interim antidegradation implementation procedures for outstanding state resource waters in 327 IAC 5-2-11.7 are intended only to assure that a specific process exists to address proposed changes pending the completion of the special designation rulemaking. The board does not consider the specific procedures listed in 327 IAC 5-2-11.7 as a final policy statement or as binding on the board in the special designation rulemaking."

(5) The department shall present rules to the board on a schedule such that final rules may be adopted and made effective prior to the expiration of 327 IAC 5-2-11.7.

*(Water Pollution Control Board; 327 IAC 2-1.5-18; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1410; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378)*

### **327 IAC 2-1.5-19 Limited use waters and outstanding state resource waters**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-4

Sec. 19. (a) The following waters within the Great Lakes system are designated for limited use:

- (1) Hoffman Ditch in St. Joseph County upstream from its confluence with Yellow River.
- (2) Berlin Court Ditch in Elkhart County from the Nappanee sewage treatment plant to two (2) miles downstream.
- (3) An unnamed tributary and Werntz Ditch in Elkhart County from the Wakarusa STP to the confluence of Werntz Ditch and Baugo Creek.
- (4) Hilkey Ditch in DeKalb County from the County Line Cheese Company outfall to North County Line Road one and one-half (1.5) miles downstream.
- (5) Hindman Ditch in DeKalb County from the Ralph Sechler Company outfall downstream to its confluence with Bear Creek.

(b) The following waters within the Great Lakes system are designated as an outstanding state resource water:

- (1) Cedar Creek in Allen and DeKalb counties, from river mile 13.7 to its confluence with the St. Joseph River.
- (2) The Indiana portion of the open waters of Lake Michigan.
- (3) All waters incorporated in the Indiana Dunes National Lakeshore.

*(Water Pollution Control Board; 327 IAC 2-1.5-19; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1411; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378)*

### **327 IAC 2-1.5-20 Incorporation by reference**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-18-4

Sec. 20. The following materials have been incorporated by reference into this rule. Each of the following items, in addition to its title, will list the name and address of where it may be located for inspection and copying:

- (1) Clean Water Act (CWA), 33 U.S.C. 1251 et seq., in effect December 16, 1996, is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.
- (2) The map identifying 1995 United States Coast Guard Light List No. 19675 is available from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.
- (3) Code of Federal Regulations (40 CFR 136) in effect December 16, 1996, are available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.
- (4) ASTM, 1990, Standard Practice for Conducting Bioconcentration Tests with Fishes and Saltwater Bivalve Molluscs, Standard E 1022, available from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.
- (5) 1986 U.S. EPA Guidelines for Carcinogenic Risk Assessment (U.S. EPA, 1986), available from the U.S. Environmental Protection Agency, Office of Water Resource Center (WH-550A), 401 M Street, S.W., Washington, D.C. 20460, and the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.
- (6) U.S. EPA. 1993, Chapter 4, Wildlife Exposure Factors Handbook, Volumes I and II, available from U.S. Environmental Protection Agency, Office of

Water Resource Center, 401 M Street, S.W., Washington, D.C. 20460 [EPA/600/R-93/187a and b], and the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.

(7) "Standard Methods for the Examination of Water and Wastewater", Joint Editorial Board, American Public Health Association, American Water Works Association, and Water Environment Federation, 18th Edition, 1992. Available from American Public Health Association, 1015 Fifteenth Street, N.W., Washington, D.C. 20005, and the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 Senate Avenue, Indianapolis, Indiana 46206.

(8) 1980 National Guidelines, 45 FR 79352 and 45 FR 79354.

(*Water Pollution Control Board; 327 IAC 2-1.5-20; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1412; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378*)

**Rule 2. Cyanides and Cyanogen Compounds; Drainage into Sewer Systems or Watercourses Prohibited; Exception**

327 IAC 2-2-1 Cyanides or cyanogen compounds; drainage prohibition

**327 IAC 2-2-1 Cyanides or cyanogen compounds; drainage prohibition**

**Authority:** IC 13-1-3-7

**Affected:** IC 13-1-3-7; IC 13-7-4-1

Sec. 1. Any person, firm, or corporation engaged in manufacture or other process in which cyanides or cyanogen compounds are used shall have each and every room, where said compounds are used or stored, so constructed that none of said compounds can escape therefrom by means of building sewer, drain or otherwise directly or indirectly into any sewer system or watercourse. However, on application to and prior approval by the commissioner, limited amounts, which it is determined would not be detrimental to public health or which would not pollute any lake, river, stream, drainage or roadside ditch or other water-course, shall not come under the provision of the paragraph above. (*Water Pollution Control Board; 327 IAC 2-2-1; filed Sep 24, 1987, 3:00 pm: 11 IR 587; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**Rule 3. Coal Mines; Restrictions on Acid Drainage and Refuse Deposits into State Waters**

327 IAC 2-3-1 Coal mines; acid mine drainage prohibitions

**327 IAC 2-3-1 Coal mines; acid mine drainage prohibitions**

**Authority:** IC 13-1-3-7

**Affected:** IC 13-1-3-5; IC 13-1-3-7; IC 13-7-4-1

Sec. 1. Every person, firm, corporation or other legal entity who owns an active or abandoned coal mine or who is engaged in the storage, transportation, use, mining or processing of coal in the state of Indiana, shall dispose of refuse, including gob and coal fines, from processing coal, so as to create minimal acid mine drainage and deposits of coal fines in waters of this state.

No gob shall be used in the construction of public or private roadways in the state of Indiana, which will cause acid mine drainage to the waters of this state under the jurisdiction of the water pollution control board. (*Water Pollution Control Board; 327 IAC 2-3-1; filed Sep 24, 1987, 3:00 pm: 11 IR 587; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**Rule 4. Waste Treatment Control Facilities; Discharge into State Waters; Monthly Reports**

327 IAC 2-4-1 Monthly reports to board

327 IAC 2-4-2 Wastewater defined

327 IAC 2-4-3 Sampling frequency; methods of analysis

327 IAC 2-4-4 Preparation of reports by operator; time for submission

**327 IAC 2-4-1 Monthly reports to board**

**Authority:** IC 13-1-3-7; IC 13-7-7-5

**Affected:** IC 13-1-5-7-1; IC 13-7-16-7

Sec. 1. Every person, firm or corporation that operates a municipal, industrial, commercial or agricultural waste treatment plant control facility or discharges wastewaters to the waters of the state of Indiana shall submit to the commissioner monthly reports of operation, which shall include flow measurements and wastewater characteristics. (*Water Pollution Control Board; 327 IAC 2-4-1; filed Sep 24, 1987, 3:00 pm: 11 IR 587; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 2-4-2 Wastewater defined**

**Authority:** IC 13-1-3-7

**Affected:** IC 13-1-5-7-1; IC 13-1-6-2; IC 13-7-1-2

Sec. 2. For the purpose of this rule (327 IAC 2-4), wastewater is defined as the liquid and water-carried wastes from industrial, municipal, commercial or confined animal feeding operation. (*Water Pollution Control Board; 327 IAC 2-4-2; filed Sep 24, 1987, 3:00 pm: 11 IR 587; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 2-4-3 Sampling frequency; methods of analysis

**Authority:** IC 13-1-3-7

**Affected:** IC 13-1-5.7-5; IC 13-1-6-7; IC 13-7-7-5

Sec. 3. Sampling, measurements of flow and characteristics of the effluent shall be performed at a frequency prescribed by the commissioner. All analytical work shall be in accordance with the 16th edition of "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association (APHA) or other methods approved by the commissioner. (*Water Pollution Control Board; 327 IAC 2-4-3; filed Sep 24, 1987, 3:00 pm: 11 IR 587; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 2-4-4 Preparation of reports by operator; time for submission

**Authority:** IC 13-1-3-7

**Affected:** IC 13-1-6

Sec. 4. All reports shall be prepared by the certified wastewater treatment plant operator, licensed under the provisions of IC 13-1-6, when such discharge(s) originate(s) in whole or in part from a wastewater treatment plant as defined in IC 13-1-6. Such reports shall be submitted prior to the 28th day of the following month. (*Water Pollution Control Board; 327 IAC 2-4-4; filed Sep 24, 1987, 3:00 pm: 11 IR 587; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### Rule 5. Phosphates; Permits for Use by Manufacturers and Processors; Detergents

327 IAC 2-5-1 Use of phosphorus detergents; permits

#### 327 IAC 2-5-1 Use of phosphorus detergents; permits

**Authority:** IC 13-1-5.5-5; IC 13-7-7-5

**Affected:** IC 13-7-10

Sec. 1. Any manufacturer or processor required to use detergents containing phosphorus for cleaning plant or equipment shall obtain a permit therefor from the commissioner.

(a) The application for the permit shall be made on a form provided by the commissioner and shall include as a minimum the following:

- (1) Phosphorus content of the detergent by weight and the maximum daily and monthly average quantities used.
- (2) Description of the use and why a phosphorus detergent is required.
- (3) The means of treatment that will be installed using the best practicable control technology for removal of

phosphorus from the wastewater before discharge directly into the waters of Indiana or into any sewer or drain that enters the waters of the state of Indiana.

(b) The commissioner may issue a permit for a period not to exceed four (4) years, upon a determination that the use of phosphorus detergents is necessary with no adequate substitute available and that the best practicable treatment method of removal of phosphorus is accomplished prior to discharge of the treated effluent. Renewal applications must be submitted to the commissioner at least sixty (60) days in advance of the expiration date of the permit. (*Water Pollution Control Board; 327 IAC 2-5-1; filed Sep 24, 1987, 3:00 pm: 11 IR 587; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### Rule 6. Spills of Oil and Other Objectionable Substances; Reporting, Containment and Cleanup (*Repealed*)

(*Repealed by Water Pollution Control Board; filed Feb 25, 1997, 1:00 p.m.: 20 IR 1734*)

#### Rule 6.1. Spills; Reporting, Containment, and Response

- 327 IAC 2-6.1-1 Applicability
- 327 IAC 2-6.1-2 Special areas
- 327 IAC 2-6.1-3 Exclusions
- 327 IAC 2-6.1-4 Definitions
- 327 IAC 2-6.1-5 Reportable spills; facility
- 327 IAC 2-6.1-6 Reportable spills; transportation
- 327 IAC 2-6.1-7 Reportable spills; responsibilities
- 327 IAC 2-6.1-8 Emergency spill response actions
- 327 IAC 2-6.1-9 Compliance confirmation

#### 327 IAC 2-6.1-1 Applicability

**Authority:** IC 13-14-8-7

**Affected:** IC 13-11-2; IC 13-18-1; IC 13-18-3; IC 13-18-8; IC 13-18-17

Sec. 1. This rule applies to the reporting and containment of, and the response to those spills of hazardous substances, extremely hazardous substances, petroleum, and objectionable substances that are of a quantity, type, duration and in a location as to damage the waters of the state. Nothing in this rule is intended to affect reporting or clean-up requirements set forth by other federal, state, or local laws. (*Water Pollution Control Board; 327 IAC 2-6.1-1; filed Feb 25, 1997, 1:00 p.m.: 20 IR 1731; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### 327 IAC 2-6.1-2 Special areas

**Authority:** IC 13-14-8-7

**Affected:** IC 13-11-2; IC 13-18-1; IC 13-18-3; IC 13-18-8; IC 13-18-17

Sec. 2. Certain areas of the state are recognized as

having unique geology. A large section of the mid-southern part of the state is a karst region. Portions of Saint Joseph, Elkhart, Kosciusko, and LaGrange Counties contain a sole source aquifer as referenced in 42 U.S.C. 300h-3(e). The waters of the state are particularly vulnerable to damage from spills in these areas, and care should be exercised when evaluating damage from spills. Information about these areas can be obtained by calling the office of environmental response, emergency response branch. (*Water Pollution Control Board; 327 IAC 2-6.1-2; filed Feb 25, 1997, 1:00 p.m.: 20 IR 1731; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 2-6.1-3 Exclusions

**Authority:** IC 13-14-8-7

**Affected:** IC 13-11-2; IC 13-18-1; IC 13-18-3; IC 13-18-8; IC 13-18-17

Sec. 3. Notwithstanding any other section of this rule, the reporting requirement of this rule does not apply to the following occurrences:

- (1) Discharges or exceedances that are under the jurisdiction of an applicable permit when the substance in question is covered by the permit and death or acute injury or illness to animals or humans does not occur.
- (2) Lawful application of materials, including, but not limited to:
  - (A) commercial or natural fertilizers and pesticides on or to land or water; or
  - (B) dust suppression materials.
- (3) The application of petroleum necessary for construction that does not damage waters of the state.
- (4) Spills of less than one (1) pound or one (1) pint.
- (5) Spills of integral operating fluids, in the use of motor vehicles or other equipment, the total volume of which is less than or equal to fifty-five (55) gallons and which do not damage waters of the state.
- (6) Oil sheens produced as a result of the normal operation of properly functioning watercraft.
- (7) A release of a substance integral to a spill response activity that has been approved and authorized by a state or federal on-scene coordinator.

(*Water Pollution Control Board; 327 IAC 2-6.1-3; filed Feb 25, 1997, 1:00 p.m.: 20 IR 1731; errata filed Mar 7, 1997, 2:25 p.m.: 20 IR 1738; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 2-6.1-4 Definitions

**Authority:** IC 13-14-8-7

**Affected:** IC 13-11-2; IC 13-18-1; IC 13-18-3; IC 13-18-8; IC 13-18-17; IC 14-8-2-7; IC 14-25-7-13; IC 14-25-7-15

Sec. 4. In addition to the definitions contained in IC 13-11-2-17(d), IC 13-11-2-35(a), IC 13-11-2-51, IC 13-

11-2-158(a), IC 13-11-2-160, IC 13-11-2-260, IC 13-11-2-265, and in 327 IAC 1, the following definitions apply throughout this rule:

- (1) "Animal" means all mammals, birds, reptiles, amphibians, fish, crustaceans, and mollusks.
- (2) "Aquatic life" means those plants and macroinvertebrates that are dependent upon an aquatic environment.
- (3) "Contain" means to take such immediate action as necessary to dam, block, restrain, or otherwise act to most effectively prevent a spill from entering waters of the state or minimize damage to the waters of the state from a spill.
- (4) "Damage" means the actual or imminent alteration of the waters of the state so as to render the waters harmful, detrimental, or injurious to:
  - (A) public health, safety, or welfare;
  - (B) domestic, commercial, industrial, agricultural, or recreational uses; or
  - (C) animals or aquatic life.
- (5) "Downstream water user" means:
  - (A) a community public water supply, as identified by the department of natural resources under IC 14-25-7-13(d);
  - (B) a significant water withdrawal facility as registered with the department of natural resources under IC 14-25-7-15;
  - (C) users of recreational waters; or
  - (D) any other user made known to the person who has a spill.
- (6) "Extremely hazardous substance" means a substance identified pursuant to 42 U.S.C. 11002 and 11004. (40 CFR 355 Appendix A.)
- (7) "Facility" means all land, buildings, equipment, structures, and other stationary items that are located on a single site or on contiguous sites and that are owned or operated by the same person or by any person who controls, is controlled by, or is under common control with, such person.
- (8) "Facility boundary" means the boundary of a facility or an easement or right-of-way.
- (9) "Hazardous substance" has the meaning set forth in 42 U.S.C. 9601(14).
- (10) "Mode of transportation" includes, but is not limited to, carriage by:
  - (A) rail and motor vehicles;
  - (B) aircraft;
  - (C) watercraft;
  - (D) pipelines; or
  - (E) other means of transportation;

in commerce. This definition excludes carriage within a facility by transportation equipment owned, operated, or controlled by that facility.

(11) "Objectionable substances" means substances that are:

(A) of a quantity and a type; and

(B) present for a duration and in a location; so as to damage waters of the state. This definition excludes hazardous substances, extremely hazardous substances, petroleum, and mixtures thereof.

(12) "On-scene coordinator" means a state or federal official designated by the department, the United States Environmental Protection Agency, or the United States Coast Guard to direct and coordinate special spill response activities.

(13) "Recreational waters" means any water used for:

(A) boating, swimming, fishing, hunting, trapping, or wildlife viewing; or

(B) public access areas that are owned by the department of natural resources or the federal government; as listed by the department.

(14) "Reportable quantity" means the amount of a hazardous substance or extremely hazardous substance that is required to be reported under federal law under 42 U.S.C. 9602(a) and (b) and 42 U.S.C. 9603(a). (40 CFR 302.4 or 40 CFR 355 Appendix A.)

(15) "Spill" means any unexpected, unintended, abnormal, or unapproved dumping, leakage, drainage, seepage, discharge or other loss of petroleum, hazardous substances, extremely hazardous substances, or objectionable substances. The term does not include releases to impermeable surfaces when the substance does not migrate off the surface or penetrate the surface and enter the soil.

(16) "Spill response", for purposes of this rule, means the following:

(A) The spill is contained; and

(B) Free material is removed or neutralized.

(17) "Spill report" means an oral report that includes the following information about a spill, to the extent that the information is known at the time of the report:

(A) The name, address, and telephone number of the person making the spill report.

(B) The name, address, and telephone number of a contact person if different from clause (A).

(C) The location of the spill.

(D) The time of the spill.

(E) The identification of the substance spilled.

(F) The approximate quantity of the substance that has been or may further be spilled.

(G) The duration of the spill.

(H) The source of the spill.

(I) Name and location of the waters damaged.

(J) The identity of any response organization responding to the spill.

(K) What measures have been or will be undertaken

to perform a spill response.

(L) Any other information that may be significant to the response action.

(18) "Waters", as defined in IC 13-11-2-265, means the accumulations of water, surface and underground, natural and artificial, public and private, or parts thereof, that are wholly or partially within, flow through, or border upon this state. The term does not include any private pond or any off-stream pond, reservoir, or facility built for reduction or control of pollution or cooling of water prior to discharge unless the discharge from the pond, reservoir, or facility causes or threatens to cause water pollution.

*(Water Pollution Control Board; 327 IAC 2-6.1-4; filed Feb 25, 1997, 1:00 p.m.: 20 IR 1731; errata filed Mar 7, 1997, 2:25 p.m.: 20 IR 1738; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 2-6.1-5 Reportable spills; facility**

**Authority:** IC 13-14-8-7

**Affected:** IC 13-11-2; IC 13-18-1; IC 13-18-3; IC 13-18-8; IC 13-18-17

Sec. 5. The following spills from a facility must be reported:

(1) Spills that damage the waters of the state so as to cause death or acute injury or illness to humans or animals.

(2) Spills from a facility that has been notified in writing by a water utility that it is located in a delineated public water supply wellhead protection area as approved by the department under 327 IAC 8-4.1 that are:

(A) spills of hazardous substances or extremely hazardous substances when the amount spilled exceeds one hundred (100) pounds or the reportable quantity, whichever is less;

(B) spills of petroleum when the amount spilled exceeds fifty-five (55) gallons; or

(C) spills of objectionable substances as defined in section 4(11) of this rule.

(3) Spills that damage waters of the state and that:

(A) are located within fifty (50) feet of a known private drinking water well located beyond the facility property boundary; or

(B) are located within one hundred (100) yards of:

- (i) any high quality water designated as an outstanding state resource pursuant to 327 IAC 2-1-2(3), excluding Lake Michigan;
- (ii) any water designated as exceptional use pursuant to 327 IAC 2-13(a)(6) [*sic.*, 327 IAC 2-1-3(a)(6)] and 327 IAC 2-1-11(b);
- (iii) any water designated as capable of supporting

a salmonid fishery pursuant to 327 IAC 2-1-6(c)(1), except Lake Michigan; or

(iv) any water that is a fish hatchery, fish and wildlife area, nature preserve, or recreational water owned by the department of natural resources or the federal government.

(4) For any spill which does not meet the criteria in subdivisions (1) through (3), the following must be reported:

(A) Spills to surface waters:

(i) spills of hazardous substances or extremely hazardous substances when the amount spilled exceeds one hundred (100) pounds or the reportable quantity, whichever is less;

(ii) spills of petroleum of such quantity as to cause a sheen upon the waters; or

(iii) spills of objectionable substances as defined in section 4(11) of this rule.

(B) Spills to soil beyond the facility boundary:

(i) spills of hazardous substances or extremely hazardous substances when the amount spilled exceeds one hundred (100) pounds or the reportable quantity, whichever is less;

(ii) spills of petroleum when the amount spilled exceeds fifty-five (55) gallons; or

(iii) spills of objectionable substances as defined in section 4(11) of this rule.

(C) Spills to soil within the facility boundary:

(i) spills of hazardous substances or extremely hazardous substances when the amount spilled exceeds the reportable quantity;

(ii) spills of petroleum when the spilled amount exceeds one thousand (1,000) gallons; or

(iii) spills of objectionable substances as defined in section 4(11) of this rule.

(5) Any spill for which a spill response has not been done.

*(Water Pollution Control Board; 327 IAC 2-6.1-5; filed Feb 25, 1997, 1:00 p.m.: 20 IR 1732; errata filed Mar 7, 1997, 2:25 p.m.: 20 IR 1738; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 2-6.1-6 Reportable spills; transportation**

**Authority:** IC 13-14-8-7

**Affected:** IC 13-11-2; IC 13-18-1; IC 13-18-3; IC 13-18-8; IC 13-18-17

Sec. 6. The following spills from a mode of transportation must be reported:

(1) Spills that damage the waters of the state so as to cause death or acute injury or illness to humans or animals.

(2) Spills that damage surface waters.

(3) Spills to soil:

(A) spills of hazardous substances or extremely hazardous substances when the amount spilled exceeds one hundred (100) pounds or the reportable quantity, whichever is less;

(B) spills of petroleum when the amount spilled exceeds fifty-five (55) gallons; or

(C) spills of objectionable substances as defined in section 4(11) of this rule.

(4) Any spill for which a spill response has not been done.

*(Water Pollution Control Board; 327 IAC 2-6.1-6; filed Feb 25, 1997, 1:00 p.m.: 20 IR 1733; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 2-6.1-7 Reportable spills; responsibilities**

**Authority:** IC 13-14-8-7

**Affected:** IC 13-11-2; IC 13-18-1; IC 13-18-3; IC 13-18-8; IC 13-18-17

Sec. 7. Any person who operates, controls, or maintains any mode of transportation or facility from which a spill occurs shall, upon discovery of a reportable spill to the soil or surface waters of the state, do the following:

(1) Contain the spill, if possible, to prevent additional spilled material from entering the waters of the state.

(2) Undertake or cause others to undertake activities needed to accomplish a spill response.

(3) As soon as possible, but within two (2) hours of discovery, communicate a spill report to the Department of Environmental Management, Office of Environmental Response: Area Code 1-888-233-7745 for in-state calls (toll free), (317) 233-7745 for out-of-state calls. If new or updated spill report information becomes known that indicates a significant increase in the likelihood of damage to the waters of the state, the responsible party shall notify the department as soon as possible but within two (2) hours of the time the new or updated information becomes known.

(4) Submit to the Department of Environmental Management, Office of Environmental Response, 2525 North Shadeland Avenue, P.O. Box 6015, Indianapolis, IN, 46206-6015, a written copy of the spill report if requested in writing by the department.

(5) Except from modes of transportation other than pipelines, exercise due diligence and document attempts to notify the following:

(A) For spills to surface water that cause damage, the nearest affected downstream water user located within ten (10) miles of the spill and in the state of Indiana; and

(B) For spills to soil outside the facility boundary, the affected property owner or owners, operator or operators, or occupant or occupants.

*(Water Pollution Control Board; 327 IAC 2-6.1-7; filed Feb 25, 1997, 1:00 p.m.: 20 IR 1733; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 2-6.1-8 Emergency spill response actions**

**Authority:** IC 13-14-8-7

**Affected:** IC 13-11-2; IC 13-18-1; IC 13-18-3; IC 13-18-8; IC 13-18-17

Sec. 8. Notwithstanding any other section of this rule, emergency spill response actions take precedence over reporting requirements, and when emergency spill response activities render spill reporting inconsistent with effective response activities, communication of the spill report to the Indiana department of environmental management may be delayed. In situations where the spill report is delayed, the burden of proving the need for the delay shall be upon the responsible person. *(Water Pollution Control Board; 327 IAC 2-6.1-8; filed Feb 25, 1997, 1:00 p.m.: 20 IR 1734; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 2-6.1-9 Compliance confirmation**

**Authority:** IC 13-14-8-7

**Affected:** IC 13-11-2; IC 13-18-1; IC 13-18-3; IC 13-18-8; IC 13-18-17

Sec. 9. When spill reporting and response, as provided for in this rule, has occurred, the department shall, upon request, issue a letter confirming compliance with this rule and stating that no further action is required under this rule. *(Water Pollution Control Board; 327 IAC 2-6.1-9; filed Feb 25, 1997, 1:00 p.m.: 20 IR 1734; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 7. Lake Michigan and Contiguous Harbor Areas (Repealed)**

*(Repealed by Water Pollution Control Board; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1046)*

### **Rule 8. Grand Calumet River and Indiana Harbor Ship Canal (Repealed)**

*(Repealed by Water Pollution Control Board; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1046)*

### **Rule 9. Natural Spawning, Rearing or Imprinting Areas; Migration Routes for Salmonid Fishes (Repealed)**

*(Repealed by Water Pollution Control Board; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1046)*

### **Rule 10. Secondary Containment of Aboveground Storage Tanks Containing Hazardous Materials**

327 IAC 2-10-1	Purpose
327 IAC 2-10-2	Applicability
327 IAC 2-10-3	Exclusions
327 IAC 2-10-4	Definitions
327 IAC 2-10-5	Storage inside a building
327 IAC 2-10-6	Storage outside a building
327 IAC 2-10-7	Hazardous materials transfer area
327 IAC 2-10-8	Spill response plan

### **327 IAC 2-10-1 Purpose**

**Authority:** IC 13-18-5

**Affected:** IC 13-11-2

Sec. 1. (a) This rule provides the requirements for secondary containment structures and spill response plans for the purpose of preventing released hazardous materials from entering surface water or ground water at facilities storing liquid hazardous materials in an above-ground storage tank or storage area, or operating a transfer area.

(b) The intent of this rule is to provide for short term containment of discharges.

(c) This rule does not reduce or replace the secondary containment requirements found in other regulations or laws. *(Water Pollution Control Board; 327 IAC 2-10-1; filed May 28, 1999, 11:42 a.m.: 22 IR 3099; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 2-10-2 Applicability**

**Authority:** IC 13-18-5

**Affected:** IC 13-11-2

Sec. 2. (a) The secondary containment requirements of this rule apply to owners or operators of a facility storing liquid hazardous materials in an aboveground storage tank or storage area, or operating a transfer area for liquid hazardous materials as defined in section 4 of this rule, if the aboveground tank, storage area, or transfer area is constructed after the effective date of this rule and includes:

(1) construction activities scheduled after the effective date of this rule; or

(2) construction activities scheduled before the effective date of this rule only when physical construction did not begin within ninety (90) days after the effective date of this rule.

(b) An existing aboveground tank, storage area, or transfer area must be brought into compliance with this rule when replaced or relocated.

(c) The spill response plan requirements of this rule apply to owners or operators of a facility storing liquid hazardous materials in an aboveground storage tank or storage area, or operating a transfer area for liquid hazardous materials as defined in section 4 of this rule.

*(Water Pollution Control Board; 327 IAC 2-10-2; filed May 28, 1999, 11:42 a.m.: 22 IR 3099; errata filed Jun 8, 1999, 9:23 a.m.: 22 IR 3108; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 2-10-3 Exclusions**

**Authority:** IC 13-18-5

**Affected:** IC 13-11-2-160; IC 13-11-2-241; IC 13-23; IC 13-24

Sec. 3. (a) The requirements of this rule do not apply to:

- (1) An aboveground storage tank, storage areas, or transfer areas for agricultural chemicals regulated by the office of the Indiana state chemist under 355 IAC 2 and 355 IAC 5.
- (2) An aboveground storage tank, storage areas, or transfer areas regulated by the Indiana fire prevention and building safety commission pursuant to 675 IAC 22.
- (3) An aboveground storage tank or storage areas containing liquids which are solids or gases above sixty (60) degrees Fahrenheit and at atmospheric pressure.
- (4) An aboveground storage system or petroleum facility and other structures, equipment, and appurtenances thereto, used or capable of being used to store or transfer oil as defined in and regulated by 40 CFR 112\* or petroleum as defined in IC 13-11-2-160.
- (5) Underground storage tanks as defined in IC 13-11-2-241.
- (6) Hazardous materials that are stored or transferred as products packaged for distribution to, and used by, the public.
- (7) Aboveground storage tanks, storage areas, and transfer areas containing hazardous waste regulated under 329 IAC 3.1 and 42 U.S.C. 6991 through 6991(i)\*, as amended.
- (8) Machinery and equipment containing integral operating fluids, provided that these fluids are necessary for the proper operation of the equipment.
- (9) Process tanks.
- (10) Piping, with the exception of any segment of piping extending from an aboveground storage tank to the point of the first fitting.
- (11) Aboveground storage tanks used to store materials other than oils or petroleum products that:
  - (A) have a capacity of not more than six hundred sixty (660) gallons and are not in a delineated well-head protection area as approved by the department under 327 IAC 8-4.1; or
  - (B) are less than two hundred seventy-five (275) gallons if at a facility that has been notified in writing by a water utility that it is located in a delineated public water supply wellhead protection area as approved by the department under 327 IAC 8-4.1.

(12) Storage area in which the drums and portable containers are considered empty of liquid hazardous materials if the standards set forth in 40 CFR 261.7\* are met.

(b) Aboveground storage tanks, storage areas, and transfer areas constructed on or before the effective date of this rule are not subject to the requirements of sections 5 through 7 of this rule, except as provided in section 2 of this rule.

\*The Code of Federal Regulations and the United States Code (U.S.C.) citations are incorporated by reference into this rule and are available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206. *(Water Pollution Control Board; 327 IAC 2-10-3; filed May 28, 1999, 11:42 a.m.: 22 IR 3099; errata filed Jun 8, 1999, 9:23 a.m.: 22 IR 3108; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 2-10-4 Definitions**

**Authority:** IC 13-18-5

**Affected:** IC 13-11-2

Sec. 4. For the purposes of this rule, the following terms are defined as follows:

- (1) "Aboveground storage tank" means a stationary device designed to structurally support, enclose, and contain an accumulation of liquid hazardous materials on or above the surface of the ground, and which is constructed of nonearthen materials, such as concrete, metal, or plastic.
- (2) "Board" has the meaning set forth in IC 13-11-2-17(d).
- (3) "Commissioner" has the meaning set forth in IC 13-11-2-35(a).
- (4) "Department" has the meaning set forth in IC 13-11-2-51.
- (5) "Discharge" means the leaking, leaching, escaping, or disposing from an aboveground storage tank, storage area, or transfer area into secondary containment.
- (6) "Drum" means a nonstationary container that holds between ten (10) and one hundred (100) gallons of a liquid hazardous material.
- (7) "Facility" has the meaning set forth in IC 13-11-2-77(c).
- (8) "Hazardous material" has the meaning set forth in IC 13-11-2-96(a) or means a mixture that contains at least one (1) of the substances specified in IC 13-11-2-96(a).

(9) "Liquid" means a nongaseous state of matter that, at sixty (60) degrees Fahrenheit and atmospheric pressure, will take the shape of its container immediately upon being placed in such container.

(10) "Mixture" means a combination of materials that contains at least one (1) of the substances defined as a hazardous material under this rule in a quantity greater than or equal to ten percent (10%) by volume.

(11) "Operator" means a person who is responsible for overall operation of a facility, including a private contractor conducting operational activities at a facility.

(12) "Owner" means a person who holds title to, controls, or owns an interest in a facility with an aboveground storage tank, storage area, or transfer area. "Owner" does not include a unit of federal, state, or local government that has acquired ownership or control involuntarily through bankruptcy, tax delinquency, abandonment, or other circumstances in which the governmental unit involuntarily acquired title because of the unit's function as sovereign, except if the unit causes or contributes to the release or threatened release of a hazardous material.

(13) "Person" has the meaning set forth in IC 13-11-2-158(a).

(14) "Petroleum facility" has the meaning set forth in IC 13-11-2-161.

(15) "Portable tank" means a nonstationary container that holds one hundred (100) gallons to one thousand (1,000) gallons of a liquid hazardous material.

(16) "Process tank" means a vessel or other container used for the mixing or batching of chemicals, feeds, wastewater, or other components, or for the preparation of one (1) or more components, leading to the production of a desired product. The term includes all attached piping and other fixtures necessary for the intended operation of the vessel or container.

(17) "Secondary containment" has the meaning set forth in IC 13-11-2-197.

(18) "Spill" means any unexpected, unintended, abnormal, or unapproved dumping, leakage, drainage, seepage, discharge, or other loss of petroleum, hazardous substances, extremely hazardous substances, or objectionable substances. The term does not include releases to impermeable surfaces when the substance does not migrate off the surface or penetrate the surface and enter the soil.

(19) "Stationary" means designed and constructed to be:

- (A) immobile;
- (B) with fixed piping;
- (C) permanently attached to a surface; or
- (D) not designed to be moved when filled.

(20) "Storage area" means any discrete area at a facility in which:

(A) drums holding, in aggregate, one thousand (1,000) gallons or more; or

(B) portable tanks holding, in aggregate, two thousand (2,000) gallons or more;

of liquid hazardous materials which are stored within twenty-five (25) feet of each other for more than fifteen (15) days.

(21) "Structure", for the purposes of this rule, means part of a structure or system that prevents or impedes a spill of a hazardous material from entering waters of the state.

(22) "Transfer area" means a dedicated outside loading or unloading area used for more than fifteen (15) days in a calendar year for the transfer of liquid hazardous materials between a railcar or semitrailer tanker and an aboveground storage tank.

(23) "Water pollution control laws" has the meaning set forth in IC 13-11-2-260.

(24) "Waters" has the meaning set forth in IC 13-11-2-265.

*(Water Pollution Control Board; 327 IAC 2-10-4; filed May 28, 1999, 11:42 a.m.: 22 IR 3100; errata filed Jun 8, 1999, 9:23 a.m.: 22 IR 3108; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 2-10-5 Storage inside a building**

**Authority:** IC 13-18-5

**Affected:** IC 13-11-2

Sec. 5. Aboveground storage tanks or storage areas containing hazardous materials that are located inside a building must have a floor compatible with the material being stored and a system to prevent or impede a spill from entering waters of the state. *(Water Pollution Control Board; 327 IAC 2-10-5; filed May 28, 1999, 11:42 a.m.: 22 IR 3101; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 2-10-6 Storage outside a building**

**Authority:** IC 13-18-5

**Affected:** IC 13-11-2

Sec. 6. (a) Aboveground storage tanks or storage areas containing hazardous materials that are located outside a building must have secondary containment.

(b) Secondary containment must be designed and constructed consistent with current engineering standards with materials that are compatible with the hazardous materials being stored and which will prevent a release from entering waters of the state for a seventy-two (72) hour period. The design requirements of secondary containment must be met in one (1) of the following ways:

(1) A secondary containment area with dikes, berms, retaining walls, or trenches, and a floor that must cover the entire area within the dikes, berms, retaining walls, or trenches.

(2) A tank designed and built with an outer shell and an interstitial space between the tank wall and the outer shell that allows for monitoring.

(3) Diversionary systems that direct the discharges to treatment or temporary holding areas.

(4) Other methods approved by the commissioner that have been demonstrated to be equally protective of human health and the environment.

(c) A secondary containment area must have a volume, considering displacement, to contain at least one hundred ten percent (110%) of the volume of the largest aboveground tank, or portable tank in the secondary containment area, or the volume of the largest aboveground tank, or portable tank plus enough freeboard to contain precipitation generated by a twenty-five (25) year/twenty-four (24) hour rain event. A tank designed and built with an outer shell for secondary containment is an acceptable alternative. At a minimum, secondary containment for storage areas holding only drums must be capable of holding or diverting one hundred twenty (120) gallons.

(d) A secondary containment area must be properly maintained to protect the integrity and capacity of the secondary containment.

(e) Liquid that collects within the secondary containment area must be removed within seventy-two (72) hours of its discovery in order to maintain the available capacity of the secondary containment area at one hundred percent (100%) of the largest aboveground tank, or portable tank in the secondary containment area. Ice must be removed as soon as weather permits. Liquid that collects within the secondary containment area must meet all applicable requirements of this article if discharged to waters of the state. (*Water Pollution Control Board; 327 IAC 2-10-6; filed May 28, 1999, 11:42 a.m.: 22 IR 3101; errata filed Jun 8, 1999, 9:23 a.m.: 22 IR 3108; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 2-10-7 Hazardous materials transfer area**

**Authority:** IC 13-18-5

**Affected:** IC 13-11-2

Sec. 7. (a) A hazardous materials transfer area must be designed and constructed consistent with current engineering standards with materials that are compatible with the hazardous materials being stored, and that will prevent a release from entering waters of the state for a seventy-two (72) hour period during loading and unloading of a tank as follows:

(1) A hazardous materials transfer area must:

(A) contain a minimum of the volume of the hazardous material that could be pumped during one (1) minute of transfer operation; or

(B) direct the minimum volume of the hazardous material that could be pumped during one (1) minute of transfer operation to a diversionary system that treats or temporarily stores the hazardous material.

(b) The hazardous materials transfer area must be properly maintained to protect the integrity and capacity of the transfer area.

(c) Liquid that collects within the hazardous materials transfer area must be removed within seventy-two (72) hours of its discovery in order to maintain the available capacity of the secondary containment area at one hundred percent (100%). Ice must be removed as soon as weather permits. Liquid that collects within the hazardous materials transfer area must meet all applicable requirements of this article if discharged to waters of the state. (*Water Pollution Control Board; 327 IAC 2-10-7; filed May 28, 1999, 11:42 a.m.: 22 IR 3101; errata filed Jun 8, 1999, 9:23 a.m.: 22 IR 3108; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 2-10-8 Spill response plan**

**Authority:** IC 13-18-5

**Affected:** IC 13-11-2

Sec. 8. (a) The owner or operator of each facility with an aboveground storage tank, storage area, or transfer area subject to this rule must be prepared to prevent and control pollution that could result from an aboveground storage tank, storage area, or transfer area discharge or spill.

(b) Within twelve (12) months of the effective date of this rule, the owner or operator of each facility with an aboveground storage tank, storage area, or transfer area subject to this rule shall prepare a response plan for the facility. The response plan must be available for inspection at the facility and, if requested in writing by the department, submitted to the Department of Environmental Management, Office of Environmental Response, P.O. Box 6015, Indianapolis, IN 46206-6015. The response plan must provide, at a minimum, the following information:

(1) The name and telephone number of the contact person responsible for the facility.

(2) A description of the procedures that will be taken to provide an immediate response to a discharge or spill, including the identification of facility response personnel who will implement a response action.

(3) The identification of facility personnel or outside contractor who are [*sic., is*] capable of cleaning up the discharge or spill.

(4) A method for determining the location of storm

sewers that reasonably may be expected to be affected by a spill.

(5) The telephone numbers of the following:

(A) The facility emergency response personnel or outside contractor.

(B) The local fire department.

(C) The Indiana department of environmental management at 1-888-233-7745 (in-state, toll free) or 317-233-7745.

(D) The community emergency coordinator designated by the local emergency planning committee.

(E) The National Response Center at 1-800-424-8802.

(c) The response plan may be a part of an existing contingency, emergency response plan, or other spill plan for the facility provided that all elements in subsection (b) are included in the plan.

(d) The owner or operator shall review and update as necessary the information required in this section at least once every three (3) years or within sixty (60) days of a significant change in the information to be contained in the plan, whichever date occurs first. (*Water Pollution Control Board; 327 IAC 2-10-8; filed May 28, 1999, 11:42 a.m.: 22 IR 3101; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### Rule 11. Ground Water Quality Standards

327 IAC 2-11-1	Goal
327 IAC 2-11-2	Applicability
327 IAC 2-11-3	Definitions
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327 IAC 2-11-5	Criteria for all ground water
327 IAC 2-11-6	Criteria for drinking water class ground water
327 IAC 2-11-7	Criteria for limited class ground water
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327 IAC 2-11-9	Ground water management zones

#### 327 IAC 2-11-1 Goal

**Authority:** IC 13-18-3-1; IC 13-18-4-1; IC 13-18-4-3; IC 13-18-4-4; IC 13-18-4-5; IC 13-18-17-5

**Affected:** IC 13-18-4; IC 13-18-17

Sec. 1. The goal of this rule is to maintain and protect the quality of Indiana's ground water and ensure that exposure to the ground water will not pose a threat to human health, any natural resource, or the environment. (*Water Pollution Control Board; 327 IAC 2-11-1; filed Feb 4, 2002, 11:00 a.m.: 25 IR 1876*)

#### 327 IAC 2-11-2 Applicability

**Authority:** IC 13-18-3-1; IC 13-18-4-1; IC 13-18-4-3; IC 13-18-4-4; IC 13-18-4-5; IC 13-18-17-5

**Affected:** IC 4-22-2; IC 13-18-4; IC 13-18-17; IC 13-22; IC 13-23; IC 13-24; IC 13-25-4; IC 13-25-5-8.5; IC 13-30

Sec. 2. (a) The following agencies shall adopt rules under IC 4-22-2 to apply the standards established in this rule to the facilities, practices, and activities they regulate:

(1) The department of environmental management.

(2) The department of natural resources.

(3) The Indiana state department of health.

(4) The state chemist of the state of Indiana.

(5) The office of the state fire marshal.

(b) An agency shall use its regulatory authority when adopting rules to ensure the criteria established in sections 5, 6, 7, and 8 of this rule will not be exceeded in ground water at or beyond the boundary of a ground water management zone established according to section 9 of this rule. When adopting rules, an agency shall, to the extent consistent with its regulatory authority, ensure that facilities, practices, and activities are designed and managed to eliminate or minimize, to the extent feasible, potential adverse impacts to the existing ground water quality by applying preventative action levels, design standards, a monitoring framework, or other regulatory methods. An agency may consider technological and economic reasonableness and other appropriate factors in determining a feasible approach.

(c) The standards established in this rule shall not limit nor expand the authority of an agency.

(d) The standards established in this rule shall allow the following to be consistent with the remediation objectives set forth in IC 13-25-5-8.5:

(1) Ground water remediations conducted under:

(A) IC 13-22;

(B) IC 13-23; or

(C) IC 13-25-5.

(2) Ground water remediations that:

(A) are not emergency or nontime-critical activities; and

(B) are conducted under:

(i) IC 13-24; or

(ii) IC 13-25-4.

(3) Ground water remediations conducted under any other provision of IC 13, as appropriate.

(e) No person shall cause the ground water in a drinking water supply well to have a contaminant concentration that creates one (1) or more of the following:

(1) An exceedance of the numeric criteria established for drinking water class ground water in Tables [section] 6(a)(1) and 6(a)(2) of this rule.

(2) A level sufficient to be acutely or chronically toxic, carcinogenic, mutagenic, teratogenic, or otherwise injurious to human health based on best scientific information.

(3) An exceedance of one (1) or more of the following indicator levels:

(A) Chloride at two hundred fifty (250) milligrams

per liter.

(B) Sulfate at two hundred fifty (250) milligrams per liter.

(C) Total dissolved solids at five hundred (500) milligrams per liter.

(D) Total coliform bacteria at nondetect.

(4) Renders the well unuseable for normal domestic use.

(f) No person shall cause the ground water in a nondrinking water supply well, including an industrial, commercial, or agricultural supply well, to have a contaminant concentration that, based on best scientific information, renders the well unuseable for its current use.

(g) The criteria established in subsections (e) and (f) are immediately enforceable on the effective date of this rule under IC 13-30 to protect ground water quality in water supply wells.

(h) Except as provided in subsection (g), the criteria established in this rule shall not be enforceable under IC 13-30 until subsequent rules are adopted to apply the standards established in this rule pursuant to subsections (a) and (b). (*Water Pollution Control Board; 327 IAC 2-11-2; filed Feb 4, 2002, 11:00 a.m.: 25 IR 1876*)

### 327 IAC 2-11-3 Definitions

**Authority:** IC 13-18-3-1; IC 13-18-4-1; IC 13-18-4-3; IC 13-18-4-4; IC 13-18-4-5; IC 13-18-17-5

**Affected:** IC 13-11-2-71; IC 13-18-4; IC 13-18-17; IC 14-34

Sec. 3. The following definitions apply throughout this rule:

(1) "Agency" means one (1) or more of the following:

(A) The department of environmental management.

(B) The department of natural resources.

(C) The Indiana state department of health.

(D) The state chemist of the state of Indiana.

(E) The office of the state fire marshal.

(2) "Commissioner" means the commissioner of the department of environmental management.

(3) "Contaminant" means any solid, semisolid, liquid, or gaseous matter, or any odor, radioactive material, pollutant (as defined by the federal Water Pollution Control Act (33 U.S.C. 1362(6)), as amended on December 16, 1996)\*, hazardous waste (as defined in the federal Solid Waste Disposal Act (42 U.S.C. 6903(5)), as amended on March 26, 1996)\*\*, any constituent of a hazardous waste, or any combination of the items described in this subdivision, from whatever source, that:

(A) is injurious to human health, plant or animal life, or property;

(B) interferes unreasonably with the enjoyment of

life or property; or

(C) otherwise violates:

(i) environmental management laws; or

(ii) rules adopted under environmental management laws.

(4) "Criterion" means a numeric value or a narrative statement established to maintain and protect the quality of ground water.

(5) "Drinking water well" means a bored, drilled, or driven shaft or a dug hole that meets the following:

(A) Supplies ground water for human consumption.

(B) Has a depth greater than its largest surface dimension.

(C) Is not permanently abandoned in accordance with 310 IAC 16-10-2 [*310 IAC 16 was repealed filed Nov 22, 1999, 3:34 p.m.: 23 IR 776.*].

(6) "Environmental management laws" has the meaning set forth in IC 13-11-2-71.

(7) "Ground water" means water located below the ground surface in interconnected voids and pore spaces in the zone of saturation.

(8) "Ground water management zone" means a three (3) dimensional region of ground water around a potential or existing contaminant source where a contaminant is or was managed to prevent or mitigate deterioration of ground water quality such that the criteria established in this rule are met at and beyond the boundary of the region.

(9) "Naturally occurring concentration" means a constituent concentration in ground water that is not attributable to human activity.

(10) "Preventative action level" means a measured concentration of a chemical constituent that is:

(A) established on a site-specific or program-specific basis;

(B) used to evaluate sample analysis data from ground water monitoring systems;

(C) statistically measurable using standard laboratory analyses; and

(D) used to determine if further action is necessary to ensure the standards established in this rule are not violated.

(11) "Property boundary" means the edge of a contiguous parcel of land owned or leased by a common owner or lessee. Contiguous land shall include land separated by a public right-of-way, if that land would otherwise be contiguous.

(12) "Standards", when used without qualification, means:

(A) the numeric and narrative criteria;

(B) the classification plan; and

(C) the method of determining where the criteria must apply;

established by this rule.

(13) "Surface water quality standards" means the water quality standards established in 327 IAC 2-1 and 327 IAC 2-1.5.

\*33 U.S.C. 1362(6) is incorporated by reference. Copies of this publication may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Quality, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

\*\*42 U.S.C. 6903(5) is incorporated by reference. Copies of this publication may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Quality, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 2-11-3; filed Feb 4, 2002, 11:00 a.m.: 25 IR 1877; errata filed Feb 5, 2002, 1:52 p.m.: 25 IR 1906*)

### 327 IAC 2-11-4 Ground water classification plan

**Authority:** IC 13-18-3-1; IC 13-18-4-1; IC 13-18-4-3; IC 13-18-4-4; IC 13-18-4-5; IC 13-18-17-5

**Affected:** IC 4-22-2; IC 13-11-2-82; IC 13-18-4; IC 13-18-17; IC 14-34-4-7; IC 14-34-6; IC 14-37

Sec. 4. (a) All ground water shall be classified, under rules adopted under IC 4-22-2 that apply the standards established in this rule, to determine the appropriate narrative and numeric criteria and level of protection to be applied to ground water.

(b) Ground water shall be classified as drinking water class ground water unless it is classified as:

- (1) limited class ground water under subsection (c), (d), (e), or (f); or
- (2) impaired drinking water class ground water under subsection (g) or (h).

(c) Ground water shall be limited if it is in accordance with one (1) of the following conditions:

- (1) Contains hydrocarbons that are producible considering their quantity and location, as has been demonstrated to an agency.
- (2) Located in the injection zone of or within the physical influence of a Class I, II, or III injection well operating under a valid underground injection control permit issued under the Safe Drinking Water Act (42 U.S.C. 300) and its implementing regulations.
- (3) Located in a zone within the physical influence of a gas storage well operating under a valid permit issued under IC 14-37.

(d) Ground water shall be limited if it has constituent concentrations that are the result of natural processes acting on post mine hydrology and is located within one (1) of the following:

(1) A coal mine area that:

(A) has satisfied the requirements of IC 14-34 and is fully released from the performance bond required by IC 14-34-6; and

(B) is within a zone defined by the coal mine permit as it was formerly approved and regulated by the department of natural resources unless it is within a demonstrated zone of influence of a coal mine area as determined by the commissioner in consultation with the department of natural resources.

(2) The zone of influence, as determined by the commissioner in cooperation with the department of natural resources, of a coal mine area mined prior to August 4, 1977.

(e) Ground water shall be limited if it is located within an agricultural crop root zone. A limited classification under this subsection shall extend no deeper than ten (10) feet below the land surface.

(f) The commissioner may classify ground water as limited class ground water if a person requesting classification demonstrates, in a written submission, that the following conditions are met:

(1) The ground water requested to be classified is as follows:

(A) Described in three (3) dimensions.

(B) Limited in one (1) of the following ways:

(i) The potential ground water yield is less than two hundred (200) gallons per day.

(ii) The naturally occurring total dissolved solids concentration is greater than or equal to ten thousand (10,000) milligrams per liter.

(C) Not currently used nor reasonably expected to be used for drinking water in the future, including the combined use of multiple low yield water bearing zones.

(D) Not in a state-approved wellhead protection area established pursuant to 327 IAC 8-4.1.

(2) Notification, using certified mail, was given, at least forty-five (45) days prior to the submission of the request, to the following:

(A) An owner and, if one exists, a lessee of property within or adjacent to the land area above the ground water requested to be classified.

(B) Any person reasonably expected to be aggrieved or adversely affected by the classification.

(C) City and county health officers having jurisdiction within the land area above the ground water requested to be classified.

(g) Ground water is impaired drinking water when the

following conditions are met:

- (1) The ground water is not in a state-approved wellhead protection area established pursuant to 327 IAC 8-4.1.
- (2) The ground water has one (1) or more contaminant concentrations above the numeric criteria established in section 6(a) or 6(d) of this rule.
- (3) The commissioner has approved a ground water remediation, closure, cleanup, or corrective action plan that describes the nature and extent of contaminants exceeding the criteria established in section 6(a) or 6(d), and one (1) of the following applies:
  - (A) A restrictive covenant has been placed on the property or properties overlying the ground water, and it prohibits the use of the untreated ground water.
  - (B) An alternate institutional control, such as a local ordinance, prohibits the use of the untreated ground water as a source of residential drinking water, and the commissioner has approved the alternate institutional control as an effective means of preventing exposure to the untreated ground water.
- (h) The commissioner may classify ground water as impaired drinking water class ground water if it has one (1) or more contaminant concentrations above the numeric criteria established in section 6(a) or 6(d) of this rule and the person requesting classification demonstrates to the commissioner's satisfaction, in a written submission, that the following conditions are met:
  - (1) The ground water requested to be classified is as follows:
    - (A) Described, to the commissioner's satisfaction, in a hydrogeologic report that must, at a minimum, contain the following:
      - (i) A three (3) dimensional description of ground water flow and direction.
      - (ii) A description that includes the concentration of each contaminant that exceeds the criteria established in section 6(a) or 6(d) of this rule.
      - (iii) A map indicating the property or properties overlying the ground water requested to be classified.
    - (B) Not currently used nor reasonably expected to be used for drinking water in the future unless the following apply:
      - (i) The ground water is treated to reduce the contaminant concentration to less than the numeric criterion established in section 6(a) or 6(d) of this rule.
      - (ii) A mechanism is in place to prevent untreated ground water from being used as drinking water for as long as a contaminant concentration is above the numeric criterion established in section 6(a) or

6(d) of this rule.

- (C) Not in a state-approved wellhead protection area established pursuant to 327 IAC 8-4.1.
- (2) Notification, using certified mail, was given, at least forty-five (45) days prior to the submission of the request, to the following:
  - (A) An owner and, if one exists, a lessee of property within or adjacent to the land area above the ground water requested to be classified.
  - (B) The following city and county positions having jurisdiction within the land area above the ground water requested to be classified:
    - (i) Government officials.
    - (ii) Planners.
    - (iii) Health officers.
  - (C) Any person reasonably expected to be aggrieved or adversely affected by the classification.
- (i) The commissioner may deny a request to classify ground water as impaired drinking water class ground water if the exceedance of the numeric criterion established in section 6(a) or 6(d) of this rule was caused by an unlawful action of the person seeking the classification. Notwithstanding the impaired drinking water class ground water classification, a facility, practice, or activity or a ground water contamination assessment or remediation located within the land area above the ground water classified as impaired drinking water class ground water must comply with all otherwise applicable laws, rules, and standards.
- (j) The commissioner may reevaluate and change a ground water classification determination upon the receipt of new or additional information pertaining to a classification requirement. (*Water Pollution Control Board; 327 IAC 2-11-4; filed Feb 4, 2002, 11:00 a.m.: 25 IR 1877*)

### **327 IAC 2-11-5 Criteria for all ground water**

**Authority:** IC 13-18-3-1; IC 13-18-4-1; IC 13-18-4-3; IC 13-18-4-4; IC 13-18-4-5; IC 13-18-17-5

**Affected:** IC 13-18-4; IC 13-18-17

- Sec. 5. Each class of ground water described in section 4 of this rule shall meet the following protective criteria:
- (1) Ground water quality shall be maintained, at a minimum, to protect the current and reasonably expected future use of the ground water.
  - (2) Ground water shall be maintained and protected to ensure that a contaminant concentration attributable to human activity does not increase in a drinking water well.
  - (3) For waters of the state, surface water quality standards shall be met in the surface water at the ground water-surface water interface.

(Water Pollution Control Board; 327 IAC 2-11-5; filed Feb 4, 2002, 11:00 a.m.: 25 IR 1879)

**327 IAC 2-11-6 Criteria for drinking water class ground water**

**Authority:** IC 13-18-3-1; IC 13-18-4-1; IC 13-18-4-3; IC 13-18-4-4; IC 13-18-4-5; IC 13-18-17-5  
**Affected:** IC 4-22-2; IC 13-14-9; IC 13-18-4; IC 13-18-17

Sec. 6. (a) The following numeric criteria are health protective goals for untreated ground water used as drinking water and are the maximum permissible level of a contaminant in drinking water class ground water:

(1) Numeric criteria for select inorganic contaminants:

Contaminant	Criterion (mg/l unless noted) <sup>1</sup>
Antimony	0.006
Arsenic	0.05
Asbestos	7 MFL <sup>2</sup>
Barium	2
Beryllium	0.004
Cadmium	0.005
Chromium (total)	0.1
Combined beta/photon emitters	4 mrem/yr <sup>3</sup>
Cyanide (free)	0.2
Fluoride	4
Gross alpha particle activity (including radium 226 but excluding radon and uranium)	15 pCi/L <sup>4</sup>
Lead	0.015
Mercury (inorganic)	0.002
Nitrate (as N)	10
Nitrite (as N)	1
Radium 226 and 228 (combined)	5 pCi/L
Selenium	0.05
Thallium	0.002

Notes:

<sup>1</sup>mg/l is milligrams per liter.

<sup>2</sup>MFL is million fibers per liter greater than 10 micrometers in length.

<sup>3</sup>mrem/yr is millirems per year.

<sup>4</sup>pCi/L is picocuries per liter.

(2) Numeric criteria for select organic contaminants:

Table 6(a)(2)

Numeric Criteria for Organic Contaminants in Drinking Water Class Ground Water

Chemical Abstract Registry Numbers	Contaminant	Criterion (mg/l unless noted)
15972-60-8	Alachlor	0.002
1912-24-9	Atrazine	0.003
71-43-2	Benzene	0.005

50-32-8	Benzo(a)pyrene	0.0002
1563-66-2	Carbofuran	0.04
56-23-5	Carbon tetrachloride	0.005
57-74-9	Chlordane	0.002
94-75-7	2,4-D	0.07
75-99-0	Dalapon	0.2
103-23-1	Di(2-ethylhexyl)adipate	0.4
96-12-8	Dibromochloropropane (DBCP)	0.0002
95-50-1	Dichlorobenzene, 1,2-	0.6
106-46-7	Dichlorobenzene, 1,4-	0.075
107-06-2	Dichloroethane, 1,2-	0.005
75-35-4	Dichloroethylene, 1,1-	0.007
156-59-2	Dichloroethylene, cis-1,2-	0.07
156-60-5	Dichloroethylene, trans-1,2-	0.1
75-09-2	Dichloromethane or methylene chloride	0.005
78-87-5	Dichloropropane, 1,2-	0.005
117-81-7	Di(2-ethylhexyl)phthalate	0.006
88-85-7	Dinoseb	0.007
85-00-7	Diquat	0.02
145-73-3	Endothall	0.1
72-20-8	Endrin	0.002
100-41-4	Ethylbenzene	0.7
106-93-4	Ethylene dibromide (EDB)	0.00005
1071-83-6	Glyphosate	0.7
76-44-8	Heptachlor	0.0004
1024-57-3	Heptachlor epoxide	0.0002
118-74-1	Hexachlorobenzene	0.001
77-47-4	Hexachlorocyclopentadiene	0.05
58-89-9	Lindane (gamma-BHC)	0.0002
72-43-5	Methoxychlor	0.04
108-90-7	Monochlorobenzene	0.1
23135-22-0	Oxamyl (vydate)	0.2
87-89-5	Pentachlorophenol	0.001
1918-02-1	Picloram	0.5
1336-36-3	Polychlorinated biphenyls (PCBs)	0.0005
122-34-9	Simazine	0.004
100-42-5	Styrene	0.1
1746-01-6	2,3,7,8-TCDD (Dioxin)	0.00000003
127-18-4	Tetrachloroethylene	0.005
108-88-3	Toluene	1
8001-35-2	Toxaphene	0.003
93-72-1	2,4,5-TP (Silvex)	0.05
120-82-1	Trichlorobenzene, 1,2,4-	0.07
71-55-6	Trichloroethane, 1,1,1-	0.2
79-00-5	Trichloroethane, 1,1,2-	0.005
79-01-6	Trichloroethylene	0.005
75-01-4	Vinyl chloride	0.002
1330-20-7	Xylenes (total)	10

(3) A drinking water class numeric criterion may be

added to the criteria established in this subsection if adopted according to IC 4-22-2 and IC 13-14-9.

(b) An agency shall determine if further action is necessary to comply with the narrative criteria established in section 5 of this rule if the following indicator levels are exceeded in drinking water class ground water:

- (1) Chloride at two hundred fifty (250) milligrams per liter.
- (2) Sulfate at two hundred fifty (250) milligrams per liter.
- (3) Total dissolved solids at five hundred (500) milligrams per liter.
- (4) Total coliform bacteria at nondetect.

(c) If the commissioner determines that a site-specific numeric criterion for a contaminant without a drinking water class numeric criterion established in subsection (a) is necessary to protect human health, any natural resource, or the environment, a risk analysis shall be used to establish a numeric criterion for that contaminant and must:

- (1) receive approval from the commissioner; and
- (2) be based upon appropriate toxicological data.

(d) The naturally occurring concentration of a contaminant in drinking water class ground water shall be the numeric criterion if that contaminant occurs at a concentration greater than the drinking water numeric criterion established in subsection (a) or (c) or an indicator level established in subsection (b).

(e) If drinking water class ground water at a facility, practice, or activity is determined to have one (1) or more contaminant concentrations above the numeric criteria established in this section that are not attributable to the facility, practice, or activity under consideration, an agency shall manage the facility, practice, or activity or implement programs such that:

- (1) the facility, practice, or activity causes no further increase in the concentration of the contaminant determined to be above the numeric criterion established in this section; and
- (2) any design standard or management requirements that apply to the facility, practice, or activity are at least as stringent as the design standard and management requirements that would be applied to a facility, practice, or activity where ground water does not have one (1) or more contaminant concentrations above the numeric criteria established in this section.

(f) The commissioner may, for a ground water contamination assessment or remediation at a facility, practice, or activity under the jurisdiction of the department of environmental management, allow an appropriate site specific, risk based numeric criterion different from the numeric criterion established in subsection (a) or (d) to be applied to drinking water class ground water within

the boundary of the ground water management zone established according to section 9 of this rule. (*Water Pollution Control Board; 327 IAC 2-11-6; filed Feb 4, 2002, 11:00 a.m.: 25 IR 1879*)

### **327 IAC 2-11-7 Criteria for limited class ground water**

**Authority:** IC 13-18-3-1; IC 13-18-4-1; IC 13-18-4-3; IC 13-18-4-4; IC 13-18-4-5; IC 13-18-17-5

**Affected:** IC 13-18-4; IC 13-18-17

Sec. 7. (a) Limited class ground water, classified according to section 4(c) of this rule, must meet the narrative criteria established in section 5 of this rule.

(b) Limited class ground water, classified according to section 4(d) of this rule, must meet the following requirements:

(1) A contaminant attributable to activities associated with coal mining, not including the disposal of coal combustion waste at a surface coal mine under IC 14-34, must meet the greater of the following:

- (A) The existing contaminant concentration.
- (B) The numeric criterion established in section 6(a) of this rule.

(2) A contaminant not attributable to activities associated with coal mining, including the disposal of coal combustion waste at a surface coal mine under IC 14-34, if the contaminant concentration exceeds the concentration attributable to a coal mining activity, must meet the numeric criterion established in section 6(a) or 6(d) of this rule.

(c) Limited class ground water, classified according to section 4(e) of this rule, must meet the following requirements:

(1) A contaminant attributable to pesticides, crop nutrients, or soil amendments that have been applied for agricultural purposes and used in a manner consistent with all applicable regulatory requirements shall meet the greater of the following:

- (A) The existing contaminant concentration.
- (B) The numeric criterion established in section 6(a) of this rule.

(2) A contaminant not attributable to pesticides, crop nutrients, or soil amendments that have been applied for agricultural purposes and used in a manner consistent with all applicable regulatory requirements must meet the numeric criterion established in section 6(a) or 6(d) of this rule.

(d) Limited class ground water, classified according to section 4(f) of this rule, must meet the following requirements:

(1) A contaminant with a drinking water class numeric criterion established in section 6(a) of this rule must

have a numeric criterion of ten (10) times the drinking water class numeric criterion established in section 6(a) of this rule.

(2) If the commissioner determines that a numeric criterion for a contaminant without a drinking water class numeric criterion established in subsection 6(a) of this rule is necessary to protect human health, any natural resource, or the environment, a risk analysis shall be used to establish a numeric criterion for that contaminant and must:

- (A) receive approval from the commissioner; and
- (B) be based on appropriate toxicological data.

(e) The naturally occurring concentration of a contaminant in limited class ground water shall be the numeric criterion if that contaminant occurs at a concentration greater than the limited numeric criterion established in subsection (b), (c), or (d).

(f) If limited class ground water at a facility, practice, or activity is determined to have one (1) or more contaminant concentrations above the numeric criteria established in this section that are not attributable to the facility, practice, or activity under consideration, an agency shall manage the facility, practice, or activity or implement programs such that:

- (1) the facility, practice, or activity causes no further increase in the concentration of the contaminant determined to be above the numeric criterion established in this section; and
- (2) any design standard or management requirements that apply to the facility, practice, or activity are at least as stringent as the design standard and management requirements that would be applied to a facility, practice, or activity where ground water does not have one (1) or more contaminant concentrations above the numeric criteria established in this section.

(g) The commissioner may allow an appropriate site specific, risk based numeric criterion different from the numeric criterion established in this section to be applied to limited class ground water at and beyond the boundary of the ground water management zone established according to section 9 of this rule. (*Water Pollution Control Board; 327 IAC 2-11-7; filed Feb 4, 2002, 11:00 a.m.: 25 IR 1880*)

### **327 IAC 2-11-8 Criteria for impaired drinking water class ground water**

**Authority:** IC 13-18-3-1; IC 13-18-4-1; IC 13-18-4-3; IC 13-18-4-4; IC 13-18-4-5; IC 13-18-17-5

**Affected:** IC 13-18-4; IC 13-18-17

Sec. 8. Impaired drinking water class ground water, classified according to section 4(g) or 4(h) of this rule, shall meet the following requirements:

(1) A contaminant not identified in the classification as being in excess of the numeric criterion of section 6(a) or 6(d) of this rule shall meet the numeric criterion established in section 6(a) or 6(d) of this rule.

(2) A contaminant identified in the classification as being in excess of the numeric criterion established in section 6(a) or 6(d) of this rule shall meet the existing contaminant concentration if it is greater than the numeric criterion established in section 6(a) or 6(d) of this rule and results from a source of contamination that:

- (A) was from a previously unregulated facility, practice, or activity;
- (B) was discovered after those who caused the contamination abandoned the site and those who caused the contamination cannot be found; or
- (C) cannot be identified due to the nature of the specific constituent.

(3) Any design standard or management requirements that apply to a facility, practice, or activity with impaired drinking water class ground water must be at least as stringent as the design standard and management requirements that would be applied to a facility, practice, or activity with drinking water class ground water.

(4) The commissioner may allow an appropriate site specific, risk based numeric criterion different from the numeric criterion established in this section to be applied to impaired drinking water class ground water at and beyond the boundary of the ground water management zone established according to section 9 of this rule.

(*Water Pollution Control Board; 327 IAC 2-11-8; filed Feb 4, 2002, 11:00 a.m.: 25 IR 1881*)

### **327 IAC 2-11-9 Ground water management zones**

**Authority:** IC 13-18-3-1; IC 13-18-4-1; IC 13-18-4-3; IC 13-18-4-4; IC 13-18-4-5; IC 13-18-17-5

**Affected:** IC 4-22-2; IC 13-18-4; IC 13-18-17

Sec. 9. (a) The criteria established in sections 5, 6, 7, and 8 of this rule must be met at and beyond the boundary of the ground water management zone.

(b) An agency, having jurisdiction over a facility, practice, or activity that is subject to the criteria of this rule, may establish an appropriate program specific or site specific three (3) dimensional ground water management zone and shall determine its boundary location and duration considering the following factors:

- (1) Regulatory program requirements.
- (2) Design standards.
- (3) Monitoring frameworks.
- (4) Hydrogeologic conditions.

- (5) Risks of human exposure.
- (6) Impacts to any natural resource and the environment.
- (7) Property controls.
- (8) Physical and chemical properties of potential contaminants.

(c) An agency, having jurisdiction over a ground water contamination assessment or remediation that is subject to the criteria of this rule, may establish an appropriate program specific or site specific three (3) dimensional ground water management zone considering the following factors:

- (1) Regulatory program requirements.
- (2) Type and amount of a contaminant present.
- (3) Monitoring frameworks.
- (4) Hydrogeologic conditions.
- (5) Risks of human exposure.
- (6) Impacts to any natural resource and the environment.
- (7) Property controls.
- (8) Expected future use of the site.
- (9) Physical and chemical properties of existing contaminants.

(d) Rules adopted by an agency under IC 4-22-2 to apply the standards in this rule must include a default three (3) dimensional ground water management zone that shall apply if an agency having jurisdiction over a facility, practice, activity, or a ground water contamination assessment or remediation does not establish a program specific or site specific ground water management zone under subsection (b) or (c). The boundary of the default ground water management zone shall be located in accordance with one (1) of the following:

- (1) At each drinking water well that is:
  - (A) within three hundred (300) feet from the edge of a potential or existing contaminant source when the property boundary is greater than three hundred (300) feet from the edge of a potential or existing contaminant source; or
  - (B) within the property boundary when the property boundary is less than three hundred (300) feet from the edge of a potential or existing contaminant source.
- (2) The property boundary, when the property boundary is less than three hundred (300) feet from the edge of a potential or existing contaminant source, and there is no drinking water well within the property boundary.
- (3) Three hundred (300) feet from the edge of a potential or existing contaminant source when the property boundary is greater than three hundred (300) feet from the edge of a potential or existing contaminant source and there is no drinking water well within three hundred (300) feet from the edge of a potential or

existing contaminant source.

(e) If overlapping ground water management zone boundaries are present at a facility, practice, activity, or ground water contamination assessment or remediation, then the agency or agencies with jurisdiction may combine them. (*Water Pollution Control Board; 327 IAC 2-11-9; filed Feb 4, 2002, 11:00 a.m.: 25 IR 1882*)

### **ARTICLE 3. WASTEWATER TREATMENT FACILITIES; ISSUANCE OF PERMITS; CONSTRUCTION AND PERMIT REQUIREMENTS**

- Rule 1. General Provisions
- Rule 2. State Permits for Construction
  - Rule 2.1. Permitting Authority of Units for Sanitary Sewer Construction
- Rule 3. Approval of Completed Construction
- Rule 4. Operational Permits; Facilities not Covered by Other Permit Programs
- Rule 5. Miscellaneous Administrative Provisions
- Rule 6. Technical Standards for Sanitary Collection Systems

#### **Rule 1. General Provisions**

- 327 IAC 3-1-1 Purpose
- 327 IAC 3-1-2 Definitions

#### **327 IAC 3-1-1 Purpose**

**Authority:** IC 13-1-3-7; IC 13-1-3-10; IC 13-1-4-2; IC 13-7-7-5; IC 13-7-10-1  
**Affected:** IC 13-7-7-5; IC 13-7-10-1

Sec. 1. This article (327 IAC 3) prescribes definitions, policies, procedures, and technical criteria for the following programs: the issuance of permits for the construction of water pollution treatment/control facilities; agency approval of completed construction prior to use; the issuance of permits for the operation of water pollution treatment/control facilities; and miscellaneous administrative provisions. (*Water Pollution Control Board; 327 IAC 3-1-1; filed Sep 24, 1987, 3:00 pm: 11 IR 606; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 3-1-2 Definitions**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 2. In addition to the definitions contained in IC 13-11-2 and 327 IAC 1, the following definitions apply:

- (1) "Clean Water Act" means the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., in effect on January 1, 1989, and amended on December 16, 1996\*.
- (2) "Combined sewer" means a wastewater collection sewer-owned by the state or a municipality (as defined

by Section 502(4) of the Clean Water Act\*) which has been designed and constructed to convey sanitary wastewaters (domestic, commercial, or industrial wastewaters) and storm water through a single pipe system to a publicly owned treatment works (POTW) treatment plant.

(3) "Cyanide isolation facility" means any facility consisting of curbs, pits, drains, tanks, etc., that provides protection for cyanide solutions and compounds and prevents their release to waters of the state.

(4) "Discharge" or "direct discharge", when used without qualification, means a discharge of a pollutant.

(5) "Discharge of a pollutant" means any addition of any pollutant, or combination of pollutants, into any waters of the state of Indiana from a point source in Indiana. The term includes, without limitation, additions of pollutants into waters of the state from surface run-off which is collected or channeled by man and discharges through pipes, sewers, or other conveyances which lead either to no treatment works or to treatment works privately owned and operated by persons other than the discharger.

(6) " Dwelling" means any permanent structure which people inhabit on a regular or seasonal basis.

(7) "Effluent limitation" means any restriction established by the commissioner on quantities, discharge rates, and concentrations of pollutants that are discharged or will be discharged from point sources into waters of the state of Indiana.

(8) "Environmental Protection Agency" or "EPA" means the United States Environmental Protection Agency.

(9) "Experimental water pollution control equipment" means any equipment, device, unit, or structure that is installed on a temporary basis in order to determine the capability, capacity, or efficiency of a treatment technology.

(10) "House connection" means the pipe carrying the wastewater from a single-family dwelling to a common public sewer.

(11) "Industrial water treatment facility" means any equipment, device, unit, structure, or sewer that is used to treat water for use or reuse as industrial process water.

(12) "National pollutant discharge elimination system", also referred to as "NPDES", means the national program for issuing, modifying, revoking and reissuing, terminating, denying, monitoring, and enforcing permits for the discharge of pollutants from point sources and imposing and enforcing pretreatment requirements by the Environmental Protection Agency or the commissioner pursuant to Sections 307, 318, 402, and 405 of the CWA\*.

(13) "Permit" means any written authorization, license, or equivalent document issued to regulate the discharge of pollutants, the construction of water pollution treatment/control facilities, or land application of sludge or waste products.

(14) "Point source" means any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, or vessel or other floating craft from which pollutants are or may be discharged. The term does not include return flows from irrigated agriculture.

(15) "Pollutant" means, but is not necessarily limited to, dredged spoil, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, solid wastes, toxic wastes, hazardous substances, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011, et seq.), heat, wrecked, or discarded equipment, rock, sand, cellar dirt, and other industrial, municipal, and agricultural waste discharged into water.

(16) "Publicly owned treatment works" or "POTW" means a treatment works as defined by Section 212(2) of the CWA\* which is owned by the state or a municipality (as defined by Section 502(4) of the CWA\*), except that it does not include pipes, sewers, or other conveyances not connected to a facility providing treatment. The term includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or compatible industrial wastes. The term also means the municipality, as defined by Section 502(4) of the CWA\*, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

(17) "Sanitary sewer" means a sewer that conveys liquid and water-carried wastes from residences, commercial buildings, industrial plants, and institutions, and to which storm, surface, and ground waters are not intentionally allowed to enter.

(18) "Sewer" means a pipe or conduit that carries wastewater or drainage water.

(19) "Sludge" means any solid, semisolid, or liquid waste generated from municipal, industrial, commercial, mining, or agricultural operations, water pollution treatment/control facilities, air pollution control facilities, or water supply treatment plants, exclusive of the treated effluent from a water pollution treatment facility.

(20) "Storm sewer" means a sewer which is designed to carry only storm water but excludes other liquid and water-carried wastes.

(21) "Storm water" means water resulting from rain,

melting or melted snow, hail, or sleet.

(22) "Toxic pollutant" means any pollutant listed as toxic under Section 307(a)(1) of the CWA\*.

(23) "Wastewater" means liquid or water-carried wastes from industrial, municipal, agricultural, or other sources.

(24) "Water pollution treatment/control facility" means any equipment, device, unit, or structure at a site that is used to control, prevent, pretreat, or treat any discharge or threatened discharge of pollutants into any waters of the state of Indiana including public or private sewerage systems.

\*The Clean Water Act, 33 U.S.C.A. 1251 to 33 U.S.C.A. 1387, is available for copying at the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46204. (*Water Pollution Control Board; 327 IAC 3-1-2; filed Sep 24, 1987, 3:00 p.m.: 11 IR 606; filed May 17, 1999, 12:11 p.m.: 22 IR 3080; errata filed Dec 1, 2000, 5:25 p.m.: 24 IR 1033; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

## Rule 2. State Permits for Construction

327 IAC 3-2-1	Requirement of valid permit
327 IAC 3-2-2	Application and filing procedures
327 IAC 3-2-2.5	Preventing conflict of interest
327 IAC 3-2-3	Conditions of approval
327 IAC 3-2-4	Exclusions
327 IAC 3-2-5	Non-site-specific permit
327 IAC 3-2-6	Construction setback distances

### 327 IAC 3-2-1 Requirement of valid permit

**Authority:** IC 13-1-3-7; IC 13-1-3-10; IC 13-7-7-5

**Affected:** IC 13-7-4-1; IC 13-7-7-5; IC 13-7-10

Sec. 1. No person shall cause or allow the construction, installation, or modification of any water pollution treatment/control facility or sanitary sewer, without a valid construction permit issued by the commissioner. (*Water Pollution Control Board; 327 IAC 3-2-1; filed Sep 24, 1987, 3:00 pm: 11 IR 607*)

### 327 IAC 3-2-2 Application and filing procedures

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 4-21.5-3-5; IC 4-21.5-5; IC 13-11-2; IC 13-13-5-1; IC 13-15-4-11; IC 13-18-2; IC 25-21.5-1-7; IC 25-31-1

Sec. 2. (a) Applications for permits to construct or modify a water pollution treatment/control facility or a sanitary sewer must be made in accordance with procedures established by the commissioner. The applications must be made on forms provided by the commissioner.

Incomplete applications may result in the return of plans and specifications without action.

(b) The commissioner shall approve or deny a facility construction permit application within one hundred twenty (120) days of receipt by the commissioner.

(c) Failure by the commissioner to comply with subsection (b) is subject to IC 13-15-4-11.

(d) Construction shall not commence until all necessary state approvals and permits are obtained.

(e) The contents of a water pollution treatment/control facility construction permit application shall include at least the following:

(1) Application form signed by the applicant or its designated agent.

(2) One (1) set of construction plans and specifications capable of being microfilmed.

(3) Plans and specifications for municipal treatment/control facilities shall be prepared by or under the personal supervision of a professional engineer, registered pursuant to IC 25-31-1; plans and specifications shall be certified and sealed by said registered professional engineer. Registered land surveyors may submit plans and specifications for sanitary sewer extensions only as provided in IC 25-21.5-1-7.

(4) For other than sanitary sewer projects, an appropriate project design summary, on forms provided by the commissioner, specific to municipal or industrial facilities, containing the following information:

(A) Description of present facility, if any.

(B) Receiving stream or receiving wastewater treatment plant.

(C) Design data, including the design flows, design waste strengths, and anticipated effluent characteristics.

(D) Details on design of unit operations of proposed treatment facilities.

(E) Effluent limitation capability of proposed facility.

(5) Construction applications proposing the installation of a grinder pump or pumps to be used on low pressure sanitary sewer collection systems shall submit evidence of responsibility for ongoing maintenance.

(6) All applications for construction permits must include a signed and dated form as provided by the commissioner for the identification of affected persons as determined by IC 4-21.5-3-5(b). One (1) prepared mailing label for each potentially affected person shall be provided by the applicant for mailing notice of the permit when issued. Each mailing label shall include the name, address, and zip code of the potentially affected person and shall show on the topmost line of the label a mail code designated by the commissioner.

(7) The commissioner may request of an applicant any

additional information deemed necessary to complete or correct deficiencies in the application.

*(Water Pollution Control Board; 327 IAC 3-2-2; filed Sep 24, 1987, 3:00 p.m.: 11 IR 608; filed May 17, 1999, 12:11 p.m.: 22 IR 3082; errata filed May 20, 1999, 6:36 p.m.: 22 IR 3108)*

### **327 IAC 3-2-2.5 Preventing conflict of interest**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 2.5. (a) An application, plan, or specification submitted for construction permit approval shall not be prepared or certified, partially or entirely, by the same person, firm, or organization that has permit review and issuance authority unless in accordance with subsection (b).

(b) An application, plan, or specification submitted for construction permit approval may be prepared or certified by noncontracted personnel of a unit if the following conditions are met:

- (1) The unit has permit review and issuance authority.
- (2) The unit owns and operates the receiving water pollution treatment/control facility where the wastewater from the proposed sanitary sewer project will be treated or controlled.

*(Water Pollution Control Board; 327 IAC 3-2-2.5; filed May 17, 1999, 12:11 p.m.: 22 IR 3083; errata filed May 20, 1999, 6:36 p.m.: 22 IR 3108; errata filed Dec 1, 2000, 5:25 p.m.: 24 IR 1033)*

### **327 IAC 3-2-3 Conditions of approval**

**Authority:** IC 13-1-3-7; IC 13-1-3-10; IC 13-1-4-2; IC 13-7-7-5

**Affected:** IC 13-7-4-1; IC 13-7-7-5; IC 13-7-10

Sec. 3. (a) The permit may specify expiration dates by which the construction must be started and completed, which dates shall be compatible with any Federal and/or State grants or grant funds impacted. The commissioner may grant an extension of time for start and completion of construction if the commissioner believes such extension is necessary and justified.

(b) The commissioner shall have the authority to specify the limits and conditions necessary to insure proper design and ease of operation of water pollution treatment/control facilities.

(c) Sanitary sewers which have been issued construction permits shall be tested for infiltration/exfiltration in a method approved by the commissioner. All force mains shall be tested for leakage in an approved method. Results of the infiltration/ exfiltration test for sanitary sewers and leakage test for force mains shall be submitted for approval within ninety (90) days of completion of construction. Failure to submit test results within the

allotted time period or failure to meet guidelines for infiltration/ inflow and leakage would be subject to enforcement proceedings as provided by 327 IAC 3-5-3.

(d) Sanitary sewers that are flexible in type and which are issued construction permits shall be tested for vertical deflection. The tests shall be conducted after the final backfill has been in place at least thirty (30) days. No flexible sewer shall exceed a vertical deflection of five percent (5%). *(Water Pollution Control Board; 327 IAC 3-2-3; filed Sep 24, 1987, 3:00 pm: 11 IR 608)*

### **327 IAC 3-2-4 Exclusions**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2; IC 14-37

Sec. 4. A construction permit shall not be required under this article for the following:

- (1) A storm sewer that transports only surface run-off.
- (2) Construction of a house connection for a single-family dwelling or residence.
- (3) Construction of a building connection for a multiunit residence building, commercial, manufacturing, or industrial building, provided that no toxic or other pollutants that are incompatible with the publicly-owned treatment works and collection system are present in the wastewater served by the sewer or that are incapable of being treated to an acceptable quality.
- (4) All residential on-site wastewater disposal facilities subject to 410 IAC 6-8.1 governing the construction, installation, and modification of residential on-site wastewater disposal facilities.
- (5) All commercial on-site wastewater disposal facilities subject to 410 IAC 6-10 governing the construction, installation, and modification of commercial on-site wastewater disposal facilities.
- (6) Any animal confinement operation, whether or not it is a confined feeding operation.
- (7) On-site storage lagoons at land application sites that are governed under 327 IAC 6.1.
- (8) Ground water remediation systems utilizing either carbon absorption or air stripping as the mode of treatment.
- (9) Wells for the disposal of salt or sulfur-bearing water and waste liquids if such disposal is pursuant to a valid permit issued by the following:
  - (A) The Indiana natural resources commission under IC 14-37 for Class II wells as described in 40 CFR 146.
  - (B) The United States Environmental Protection Agency for Class I, Class III, Class IV, and Class V wells as described in 40 CFR 146.

(10) Exclusion from the necessity of a construction permit does not relieve the municipality, sanitary district, commercial or manufacturing firm, or any person from satisfying the requirements of a municipal sewer ban pursuant to 327 IAC 4.

(11) Repair, replacement, modification, or addition of equipment for an existing water pollution treatment/control facility if the repair, replacement, modification, or addition is not proposed for treatment or control of any new influent pollutant or increased levels of any existing pollutant beyond the design treatment or control capability of the water pollution treatment/control facility.

(12) Repair, replacement, modification, or addition of equipment for an existing industrial water treatment facility or construction of a new industrial water treatment facility.

(13) Construction of experimental water pollution control equipment provided it treats a sidestream of wastewater from an existing water pollution treatment or control facility and the effluent from the experimental water pollution control equipment is returned to the existing water pollution treatment or control facility.

*(Water Pollution Control Board; 327 IAC 3-2-4; filed Sep 24, 1987, 3:00 p.m.: 11 IR 609; filed Sep 30, 1987, 12:30 p.m.: 11 IR 737; filed Oct 22, 1991, 5:00 p.m.: 15 IR 219; filed May 17, 1999, 12:11 p.m.: 22 IR 3083)*

### **327 IAC 3-2-5 Non-site-specific permit**

**Authority:** IC 13-1-3-7; IC 13-1-3-10; IC 13-7-7-5

**Affected:** IC 13-7-4-1; IC 13-7-7-5; IC 13-7-10

Sec. 5. The commissioner may grant a non-site-specific construction permit for the following category of discharger: Short term drainage/sediment control lagoons.

(1) Said lagoons are those constructed according to approved general plans and specifications, however, the specific site location changes with time.

(2) Any request for issuance of such a non-site-specific, on-going construction permit shall be made by the applicant in conjunction with the application information presented in 327 IAC 3-2-2.

(3) It shall be the responsibility of the recipient of such a permit to notify the commissioner each time of a change in location of the permitted facility.

*(Water Pollution Control Board; 327 IAC 3-2-5; filed Sep 24, 1987, 3:00 pm: 11 IR 609)*

### **327 IAC 3-2-6 Construction setback distances**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 6. (a) Setback distances for new wastewater

treatment sites must comply with the following:

(1) No less than five hundred (500) feet shall separate a water pollution treatment/control facility, including aerated lagoon systems, from a dwelling, unless that dwelling is an office owned, occupied by, and located on the property of the owners of the water pollution treatment/control facility, as measured from the outside edge of the equipment involved with the treatment/control of water pollution to the outside edge of the dwelling.

(2) No less than one-fourth (1/4) of a mile shall separate a nonaerated facultative treatment lagoon from a dwelling, unless that dwelling is an office owned, occupied by, and located on the property of the owners of the nonaerated facultative treatment lagoon, as measured from the outside edge of the nonaerated facultative treatment lagoon to the outside edge of the dwelling.

(b) The separation distances required in subsection (a) may be modified if the affected dwelling owners agree to a shortened separation distance and record such agreement as easements and deed restrictions with the county recorder's office for the affected property. *(Water Pollution Control Board; 327 IAC 3-2-6; filed May 17, 1999, 12:11 p.m.: 22 IR 3084)*

### **Rule 2.1. Permitting Authority of Units for Sanitary Sewer Construction**

327 IAC 3-2.1-1 Definitions

327 IAC 3-2.1-2 Incorporation by reference

327 IAC 3-2.1-3 Permitting authority and responsibilities

#### **327 IAC 3-2.1-1 Definitions**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-12; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2; IC 25-31; IC 36-1-2-23

Sec. 1. In addition to the applicable definitions contained in IC 13-11-2, the following definitions apply throughout this rule:

(1) "Professional engineer" means a person registered as a professional engineer by the Indiana state board of registration for professional engineers under IC 25-31.

(2) "Qualified engineer" means a person with a bachelor of science degree in engineering from an accredited college or university program or a professional engineer as defined in subdivision (1).

(3) "Sanitary sewer" means a sewer that conveys liquid and water-carried wastes from residences, commercial buildings, industrial plants, and institutions and to which storm, surface, and ground waters are not intentionally allowed to enter.

(4) "Storm water" means water resulting from rain,

melting or melted snow, hail, or sleet.

(5) "Unit" means county, municipality, or township as set forth in IC 36-1-2-23.

*(Water Pollution Control Board; 327 IAC 3-2.1-1; filed May 17, 1999, 12:11 p.m.: 22 IR 3084; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 3-2.1-2 Incorporation by reference**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-12; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 2. Bulletin SE 13, "On-Site Water Supply and Wastewater Disposal for Public and Commercial Establishments", Indiana State Board of Health, 1988, is incorporated by reference into this rule and may be obtained from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. *(Water Pollution Control Board; 327 IAC 3-2.1-2; filed May 17, 1999, 12:11 p.m.: 22 IR 3084; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 3-2.1-3 Permitting authority and responsibilities**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-12; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 3. (a) The plans for a sanitary sewer extension are not required to be submitted to any state agency for a permit, permission, or review, unless required by federal law, if the following are met:

- (1) A person submits plans to a unit concerning the design or construction of a sanitary sewer.
- (2) A professional engineer prepared the plans.
- (3) The unit provided a review of the plans by a qualified engineer and subsequently approved the plans.
- (4) All other requirements specified in this rule and all other rules adopted by the water pollution control board are met.

(b) The proposed construction of a sanitary sewer must be in accordance with the Clean Water Act\*.

(c) The other requirements specified in rules that have been adopted by the water pollution control board and must be adhered to in the permitting of a sanitary sewer include, but are not limited to, the following:

- (1) 327 IAC 1.
- (2) 327 IAC 2.
- (3) 327 IAC 4.
- (4) 327 IAC 3-6.

(d) Units shall notify the commissioner that a sanitary

sewer construction permit application has been received by submitting to the department, on the date received, the following information:

- (1) Project name.
- (2) Identification of the professional engineer and engineering firm, if applicable, who designed the project, plans, and specifications.
- (3) The county of the construction project.
- (4) The location of the construction project in terms of the following:
  - (A) Nearest public intersection.
  - (B) Quarter section, section, township, and range of the approximate center of the construction project.
  - (C) If the information requested by clause (B) is not available, the latitude and longitude of the approximate center of the construction project to the nearest fifteen (15) seconds.

(e) Units shall notify the commissioner of all sanitary sewer construction permits that the unit has issued by submitting to the department, on the effective date of the permit, a copy of each issued permit. Each submission shall contain the following information for each issued permit:

- (1) Project name with project number and approval number, if different from the project number.
- (2) Identification of the professional engineer and engineering firm, if applicable, who designed the project, plans, and specifications.
- (3) The county of the construction project.
- (4) The location of the construction project in terms of the following:
  - (A) Nearest public intersection.
  - (B) Quarter section, section, township, and range of the approximate center of the construction project.
  - (C) If the information requested by clause (B) is not available, the latitude and longitude of the approximate center of the construction project to the nearest fifteen (15) seconds.
- (5) Date of issuance and effective date of the permit.
- (6) Average flows in gallons per day allotted to the sanitary sewer project and determined using the values for flow allotment per connection type according to Bulletin SE 13, "On-Site Water Supply and Wastewater Disposal for Public and Commercial Establishments".
- (7) Project description giving length and type of sewer.
- (8) The number and type of sewer connections requested.
- (9) Description of any lift stations included in the project.
- (10) A project site map.

\*The Clean Water Act in effect on January 1, 1989, and amended on December 16, 1996, may be found at 33

U.S.C. 1251 to 33 U.S.C. 1387 and is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 3-2.1-3; filed May 17, 1999, 12:11 p.m.: 22 IR 3084; errata filed Dec 1, 2000, 5:25 p.m.: 24 IR 1033; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **Rule 3. Approval of Completed Construction**

327 IAC 3-3-1 Requirement to submit as-built plans

#### **327 IAC 3-3-1 Requirement to submit as-built plans**

**Authority:** IC 13-1-3-7; IC 13-1-3-10; IC 13-1-4-2; IC 13-7-7-5  
**Affected:** IC 13-7-4-1; IC 13-7-7-5; IC 13-7-10

Sec. 1. If the commissioner determines it is necessary to review the as-built plans for a project requiring a construction permit, the applicant shall submit those plans upon request. The commissioner shall approve or disapprove those plans not more than thirty (30) days after they have been submitted. (*Water Pollution Control Board; 327 IAC 3-3-1; filed Sep 24, 1987, 3:00 pm: 11 IR 609; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **Rule 4. Operational Permits; Facilities not Covered by Other Permit Programs**

327 IAC 3-4-1 Purpose  
327 IAC 3-4-2 Applicability  
327 IAC 3-4-3 Terms and conditions of operation permits  
327 IAC 3-4-4 Procedures for issuance of operation permits

#### **327 IAC 3-4-1 Purpose**

**Authority:** IC 13-1-3-7; IC 13-1-3-10; IC 13-1-4-2; IC 13-7-7-5  
**Affected:** IC 13-7-4-1; IC 13-7-7-5

Sec. 1. The purpose of this rule (327 IAC 3-4) is to define the applicability of permits for the operation of water pollution control facilities, to specify criteria for establishing terms and conditions of such permits, and to specify procedures for the issuance of such permits. (*Water Pollution Control Board; 327 IAC 3-4-1; filed Sep 24, 1987, 3:00 pm: 11 IR 609; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 3-4-2 Applicability**

**Authority:** IC 13-1-3-7; IC 13-1-3-10; IC 13-1-4-2; IC 13-7-7-5  
**Affected:** IC 13-7-4-1; IC 13-7-7-5

Sec. 2. (a) Any person who owns or operates a water pollution treatment/control facility which is not subject to the NPDES permit program (327 IAC 5-1 through 327 IAC 5-10) or the industrial waste pretreatment permit program (327 IAC 5-15) may be required, at the commissioner's discretion, to obtain a permit to operate the water pollution control facility. Generally, such permits will be required only where the operation of the facility is considered by the commissioner to pose a significant threat to the environment.

(b) A permit is not required under this rule (327 IAC 3-4) for the discharge, by underground injection, of salt or sulfur-bearing water and waste liquids associated with the recovery of oil and natural gas, if the discharge is pursuant to a valid permit issued under IC 13-4-7-12 [*Repealed by P.L.109-1988, SECTION 23.*]. (*Water Pollution Control Board; 327 IAC 3-4-2; filed Sep 24, 1987, 3:00 pm: 11 IR 609; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 3-4-3 Terms and conditions of operation permits**

**Authority:** IC 13-1-3-7; IC 13-1-3-10; IC 13-1-4-2; IC 13-7-7-5  
**Affected:** IC 13-7-4-1; IC 13-7-7-5

Sec. 3. A permit issued under this rule (327 IAC 3-4) shall contain such terms and conditions as the commissioner determines necessary to assure that the water pollution control facility will be operated in such a manner that any pollutants released or threatened to be released by the facility into the environment will not cause or contribute to violations of applicable water quality standards, or otherwise cause a significant adverse impact on the environment or the public health. (*Water Pollution Control Board; 327 IAC 3-4-3; filed Sep 24, 1987, 3:00 pm: 11 IR 610; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 3-4-4 Procedures for issuance of operation permits**

**Authority:** IC 13-1-3-7; IC 13-1-3-10; IC 13-1-4-2; IC 13-7-7-5  
**Affected:** IC 13-7-4-1; IC 13-7-7-5

Sec. 4. (a) Whenever the commissioner determines that a permit should be required under this rule (327 IAC 3-4) the commissioner shall notify the owner, or operator if different from the owner, in writing, of that determination and the reasons underlying it and shall include an application form with such notice. The owner or operator must complete the application and return it to the commissioner within sixty (60) days of such notice.

(b) 327 IAC 5-3-2, 327 IAC 5-3-3, 327 IAC 5-3-6, 327 IAC 5-3-7, 327 IAC 5-3-14, 327 IAC 5-3-15, and 327

IAC 5-3-16 shall apply to the issuance of an operation permit under this rule.

(c) Prior to issuance of a permit, the permit applicant and any interested person shall be supplied with a notice containing the information specified in 327 IAC 5-3-12(c) and a copy of the statement of basis and shall be allowed a 30-day period to comment on the draft permit. Comments received by the commissioner during this period will be duly considered in his final determination on the issuance of the permit. For purposes of this section, a person may express his interest by specifically requesting the notice and statement of basis for a particular draft permit or by requesting to be placed on a mailing list for receipt of such information on all operation permits proposed for issuance. (*Water Pollution Control Board; 327 IAC 3-4-4; filed Sep 24, 1987, 3:00 pm: 11 IR 610; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **Rule 5. Miscellaneous Administrative Provisions**

327 IAC 3-5-1	Duration of permits
327 IAC 3-5-2	Transferability
327 IAC 3-5-3	Enforcement
327 IAC 3-5-4	Penalties
327 IAC 3-5-5	Fees
327 IAC 3-5-6	Agency requests for data

#### **327 IAC 3-5-1 Duration of permits**

**Authority:** IC 13-1-3-7; IC 13-1-3-10; IC 13-1-4-2; IC 13-7-7-5  
**Affected:** IC 13-7-10

Sec. 1. Except as specifically provided for elsewhere in these rules (327 IAC 3-5), permits may be issued by the commissioner for any period of time not to exceed five (5) years. (*Water Pollution Control Board; 327 IAC 3-5-1; filed Sep 24, 1987, 3:00 pm: 11 IR 610; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 3-5-2 Transferability**

**Authority:** IC 13-1-3-7; IC 13-1-3-10; IC 13-1-4-2; IC 13-7-7-5  
**Affected:** IC 13-7-10

Sec. 2. A permit issued under this article (327 IAC 3) may be transferred to another person by a permittee without modification or revocation and reissuance being required, if:

- (1) The permittee notifies the commissioner of the proposed transfer.
- (2) The transferee certifies in writing to the commissioner that he does not intend to significantly alter the permitted activity.
- (3) A written agreement containing a specific date for transfer of permit responsibility and coverage between the current and new permittee (including acknowledge-

ment that the existing permittee is liable for violations from that date on) is submitted to the commissioner.

(4) The commissioner within thirty (30) days does not notify the current permittee and the new permittee of his or her intent to modify, revoke and reissue, or terminate the permit and to require that a new permit be filed rather than agreeing to the transfer of the permit.

(*Water Pollution Control Board; 327 IAC 3-5-2; filed Sep 24, 1987, 3:00 pm: 11 IR 610; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 3-5-3 Enforcement**

**Authority:** IC 13-1-3-7; IC 13-1-3-10; IC 13-1-4-2; IC 13-7-7-5  
**Affected:** IC 13-7-10; IC 13-7-11; IC 13-7-12

Sec. 3. This article (327 IAC 3) shall be enforced through the provisions of IC 13-7-10-5, IC 13-7-11, or IC 13-7-12, or any combination thereof, as appropriate. (*Water Pollution Control Board; 327 IAC 3-5-3; filed Sep 24, 1987, 3:00 pm: 11 IR 610; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 3-5-4 Penalties**

**Authority:** IC 13-1-3-7; IC 13-1-3-10; IC 13-1-4-2; IC 13-7-7-5  
**Affected:** IC 13-7-13-1; IC 13-7-13-3

Sec. 4. Penalties for violation of this article (327 IAC 3) shall be governed by IC 13-7-13. (*Water Pollution Control Board; 327 IAC 3-5-4; filed Sep 24, 1987, 3:00 pm: 11 IR 611; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 3-5-5 Fees**

**Authority:** IC 13-13-5-2; IC 13-14-8; IC 13-18-4-1  
**Affected:** IC 13-16; IC 36-1-2-23

Sec. 5. (a) The following governmental entities shall remit with each application made under this article a fee of fifty dollars (\$50) but shall be excluded from payment of fee as described in subsection (b):

- (1) County, municipality, or township, which is defined as a unit under IC 36-1-2-23.
- (2) A nonprofit organization.
- (3) A conservancy district.
- (4) A school corporation that operates a sewage treatment facility.
- (5) A regional water or sewage district.

(b) The following fee schedule has been established to defray administrative costs under IC 13-7-16-6 [*IC 13-7-16-6 was repealed by P.L. 1-1996, SECTION 99, effective July 1, 1996.*]:

TYPE	PROCESSING FEE
New wastewater treatment plant (except industrial):	
Up to 500,000 gallons per day	\$1,250
Greater than 500,000 gallons per day	\$2,500
New industrial wastewater treatment plant (including pretreatment):	
Up to 500,000 gallons per day for:	
Biological or chemical treatment	\$1,250
Physical treatment	\$ 250
Greater than 500,000 gallons per day for:	
Biological or chemical treatment	\$2,500
Physical treatment	\$ 500
WWTP expansion:	
Up to fifty percent (50%) design capacity:	
Greater than 500,000 gallons per day	\$1,250
Up to 500,000 gallons per day	\$ 625
Greater than fifty percent (50%) design capacity:	
Greater than 500,000 gallons per day	\$2,500
Up to 500,000 gallons per day	\$1,250

(c) A fee shall be remitted with each application made in accordance with the schedule in subsection (b). Checks shall be made payable to the department of environmental management.

(d) The fee shall not be refundable once staff review and processing of the permit application has commenced. (*Water Pollution Control Board; 327 IAC 3-5-5; filed Sep 24, 1987, 3:00 p.m.: 11 IR 611; filed Oct 22, 1991, 5:00 p.m.: 15 IR 220; errata, 15 IR 1024; filed Sep 3, 1996, 3:00 p.m.: 20 IR 11; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 3-5-6 Agency requests for data**

**Authority:** IC 13-7-7-5; IC 13-7-16-7  
**Affected:** IC 13-7

Sec. 6. (a) Whenever necessary to carry out the provisions of this article (327 IAC 3), any person who is or may be reasonably expected to be subject to such regulatory provisions shall:

- (1) establish and maintain records;
- (2) make reports;
- (3) install, use, and maintain monitoring equipment or method (including, where appropriate, biomonitoring methods);

- (4) sample effluents, internal wastestreams where appropriate, or other material; and
- (5) provide other data, including, but not limited to, raw materials, catalysts, intermediate products, by-products, production rates, and related process information;

at such locations, at such times, and in such a manner, as the commissioner may reasonably prescribe.

(b) Sampling of internal wastestreams under subdivision (a)(4) and the provision of data under subdivision (a)(5) shall not be required by the commissioner unless:

- (1) such data is reasonably expected to facilitate the identification or quantification of pollutants which may be released to the environment from facilities owned or operated by the person to whom the request is made; and
- (2) the identification or quantification of such pollutants could not reasonably be made by the commissioner in the absence of the requested information.

(c) The commissioner, or his authorized representative, upon presentation of proper credentials:

- (1) Shall have a right of entry to, upon, or through any premises, public or private, in which records, reports, monitoring or treatment equipment or methods, samples, or other data required to be maintained or provided under subsection (a) are located.
- (2) May at reasonable times have access to and copy any records, inspect any monitoring or treatment equipment or method, or sample any effluent, internal wastestream, or other material required under subsection (a).

For purposes of this subsection, the commissioner may authorize, as his representative, any fulltime employee of the department or any person under contract with the department whereby such person has agreed, in writing under oath, not to disclose any information collected in performance of his contact to any person except as specified by the contract. (*Water Pollution Control Board; 327 IAC 3-5-6; filed Sep 24, 1987, 3:00 pm: 11 IR 611; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**Rule 6. Technical Standards for Sanitary Collection Systems**

327 IAC 3-6-1	Definitions
327 IAC 3-6-2	Incorporation by reference
327 IAC 3-6-3	Applicability
327 IAC 3-6-4	Certifications
327 IAC 3-6-5	Additional information on construction permit applications
327 IAC 3-6-6	Required easements; other permits
327 IAC 3-6-7	Issuance requirements for sanitary sewer construction permits
327 IAC 3-6-8	Sanitary sewer materials

327 IAC 3-6-9	Separation of collection systems from water mains and drinking water wells
327 IAC 3-6-10	Collection systems near surface water bodies
327 IAC 3-6-11	Design flow rate requirements for collection systems and water pollution treatment/control facilities
327 IAC 3-6-12	Slope requirements for gravity sewers
327 IAC 3-6-13	Force main requirements
327 IAC 3-6-14	Changes in pipe size
327 IAC 3-6-15	Alignment requirements
327 IAC 3-6-16	Manholes
327 IAC 3-6-17	Inverted siphons
327 IAC 3-6-18	Installation
327 IAC 3-6-19	Deflection and leakage tests
327 IAC 3-6-20	Excavation water; pressure test water
327 IAC 3-6-21	Lift station valve requirements
327 IAC 3-6-22	Ventilation
327 IAC 3-6-23	Lift station pumps
327 IAC 3-6-24	Electrical requirements
327 IAC 3-6-25	Safety requirements
327 IAC 3-6-26	Dry wells
327 IAC 3-6-27	Wet wells
327 IAC 3-6-28	Suction-lift type lift stations
327 IAC 3-6-29	Submersible type lift stations
327 IAC 3-6-30	Emergency operation
327 IAC 3-6-31	Cross connection control
327 IAC 3-6-32	Technical standard alternative demonstration

### 327 IAC 3-6-1 Definitions

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 1. In addition to the definitions contained in IC 13-11-2 and 327 IAC 3-1, the following definitions apply throughout this rule:

- (1) "Accessories" means the constituent elements of a sanitary collection system.
- (2) "American National Standards" means the recommended standards certified by the American Water Works Association.
- (3) "AWWA/ANS standards" means the American National Standard approved by the American Water Works Association.
- (4) "Authorized representative" means a person as described by at least one (1) of the following:
  - (A) A principal executive officer or ranking elected official of a local governmental unit.
  - (B) The holder of a position of responsibility for the overall operation of the unit's water pollution treatment/control facility.
  - (C) A named individual for whom authorization has been submitted in writing to the commissioner by one (1) of the individuals of clause (A) or (B).

(5) "Collection system" means the composite network of gravity sewers, force mains, lift stations, and other accessories used to receive and to transport sewage to a water pollution treatment/control facility.

(6) "Downstream" means the direction of flow toward the water pollution treatment/control facility.

(7) "Force main" means a sanitary sewer that utilizes a mode of force to transport wastewater.

(8) "Gravity sewer" means a sanitary sewer that utilizes gravity to transport wastewater.

(9) "One hundred (100) year flood" means a flood with an occurrence probability of one percent (1%) each year as determined by the Indiana department of natural resources.

(10) "Surface water" means water, regardless of being publicly or privately owned, that meets the following conditions:

(A) The water is exposed to the atmosphere.

(B) The water wholly or partially:

- (i) is within;
- (ii) flows through; or
- (iii) borders upon;

Indiana.

(11) "Twenty-five (25) year flood" means a flood with an occurrence probability of four percent (4%) each year as determined by the Indiana department of natural resources.

(12) "Upstream" means the direction of flow opposite to downstream.

*(Water Pollution Control Board; 327 IAC 3-6-1; filed May 17, 1999, 12:11 p.m.: 22 IR 3085; errata filed Dec 1, 2000, 5:25 p.m.: 24 IR 1033)*

### 327 IAC 3-6-2 Incorporation by reference

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 2. The following materials, including titles and the names and addresses of where they may be located for inspection and copying, are incorporated by reference into this rule:

- (1) The American Society for Testing and Materials standards listed throughout this rule are available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. Notwithstanding language to the contrary in the primarily incorporated documents, the version of all secondarily incorporated documents, which are those documents referred to in

the primarily incorporated documents, shall be the version in effect on the date of final adoption of this rule.

(2) The American Water Works Association (AWWA) standards listed throughout this rule are available from the American Water Works Association, 6666 West Quincy Avenue, Denver, Colorado 80235 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. Notwithstanding language to the contrary in the primarily incorporated documents, the version of all secondarily incorporated documents, which are those documents referred to in the primarily incorporated documents, shall be the version in effect on the date of final adoption of this rule.

(3) The National Electrical Code standards listed in this rule can be found in the National Electrical Code, 1996 edition and are available from the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

(4) The National Electrical Manufacturers Association (NEMA) standards listed in this rule can be found in NEMA 250, 1997 edition and are available from the National Electrical Manufacturers Association, 1300 North 17th Street, Suite 1847, Rosslyn, Virginia 22209 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

*(Water Pollution Control Board; 327 IAC 3-6-2; filed May 17, 1999, 12:11 p.m.: 22 IR 3086; errata filed Dec 1, 2000, 5:25 p.m.: 24 IR 1033)*

### **327 IAC 3-6-3 Applicability**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 3. The technical standards established in this rule are applicable to the design and construction of all new or modified sanitary collection systems subject to this article that are constructed in the state of Indiana and to the applications, plans, and specifications of the new or modified collection system. *(Water Pollution Control Board; 327 IAC 3-6-3; filed May 17, 1999, 12:11 p.m.: 22 IR 3086)*

### **327 IAC 3-6-4 Certifications**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18; IC 25-31-1

Sec. 4. (a) Certifications complying with the required statements as set forth in subsections (b) and (c) shall be submitted with an application, plan, or specification for construction permit approval under this rule.

(b) A professional engineer or a registered land surveyor, in conformance with IC 25-31-1 and 327 IAC 3-2.1-3(a), must sign, seal, and date the application making the following certification: "I certify under penalty of law that the design of this project will be performed under my direction or supervision to assure conformance with 327 IAC 3 and that the plans and specifications will require the construction of said project to be performed in conformance with 327 IAC 3-6. I certify that the peak daily flow rates, in accordance with 327 IAC 3-6-11 generated in the area that will be collected by the proposed collection system that is the subject of the application, plans, and specifications, will not cause overflowing or bypassing in the same subject proposed collection system from locations other than NPDES authorized discharge points. I certify that the proposed collection system does not include new combined sewers or a combined sewer extension to existing combined sewers. I certify that the ability for this collection system to comply with 327 IAC 3 is not contingent on water pollution treatment/control facility construction that has not been completed and put into operation. I certify that the design of the proposed project will meet all local rules, laws, regulations, and ordinances. The information submitted is true, accurate, and complete to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(c) The authorized representative of the town, city, sanitary district, or any entity that has jurisdiction over the proposed collection system must sign and date the application and issue the following certification: "I certify that I have reviewed and understand the requirements of 327 IAC 3 and that the sanitary collection system proposed, with the submission of this application, plans, and specifications, meets all requirements of 327 IAC 3. I certify that the daily flow generated in the area that will be collected by the project system will not cause overflowing or bypassing in the collection system from locations other than NPDES authorized discharge points and that there is sufficient capacity in the receiving water pollution treatment/control facility to treat the additional daily flow and remain in compliance with applicable

NPDES permit effluent limitations. I certify that the proposed average flow will not result in hydraulic or organic overload. I certify that the proposed collection system does not include new combined sewers or a combined sewer extension to existing combined sewers. I certify that the ability for this collection system to comply with 327 IAC 3 is not contingent on water pollution/control facility construction that has not been completed and put into operation. I certify that the project meets all local rules, laws, regulations, and ordinances. The information submitted is true, accurate, and complete to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.” (*Water Pollution Control Board; 327 IAC 3-6-4; filed May 17, 1999, 12:11 p.m.: 22 IR 3086; errata filed Dec 1, 2000, 5:25 p.m.: 24 IR 1033*)

### **327 IAC 3-6-5 Additional information on construction permit applications**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 5. (a) In addition to the information on the application for a construction permit required by 327 IAC 3-2-2(c), the following information shall be provided with each application for a collection system:

(1) A design summary signed, dated, and sealed by a professional engineer or a registered land surveyor in conformance with section 4 of this rule, on forms provided by the commissioner, completed with the following information:

(A) The proposed number of service connections to single-family homes, apartments, and commercial or industrial customers with the following details of design flow data:

- (i) Design average daily flow.
- (ii) Peaking factor.
- (iii) Peak daily flow.

(B) Length, diameter, type, and construction material of sanitary sewer.

(C) Aggregate length of sanitary sewer.

(D) Type of sanitary sewer jointing.

(E) Location of connection of proposed sanitary sewer to existing collection system.

(F) Who shall be providing wastewater treatment or control.

(G) Who shall be providing inspection during construction.

(H) Who shall be legally responsible for providing maintenance after completion of construction.

(2) All certifications required by section 4 of this rule.

(b) The plans required to be submitted with an application for construction permit specified in 327 IAC 3-2-2(c)(2) must bear a dated signature and seal of a professional engineer or a professional land surveyor in accordance with section 4 of this rule and must include the following:

(1) The plan view of the project area including the following:

(A) Location of existing and proposed roads and lot boundaries.

(B) Location of existing and proposed sanitary sewer pipes indicating the diameters and material types of the sanitary sewer pipes.

(C) Location of existing and proposed lift stations, manholes, road casings, cleanout assemblies, and other accessories.

(D) Location of existing and proposed water mains, storm sewers, and culverts.

(E) Separation distances of sanitary sewers, manholes, and lift stations from water mains and drinking water wells.

(F) The elevation of the one hundred (100) year floodway and flood plain.

(G) The elevation of the twenty-five (25) year floodplain for collection systems that include lift stations.

(2) The profile view of all sanitary sewer paths including the following:

(A) Location of existing and proposed roads and lot boundaries.

(B) Location of existing and proposed sanitary sewer pipes indicating the diameters and material types of the sanitary sewer pipes.

(C) Location of existing and proposed lift stations, manholes, casings, cleanout assemblies, and other accessories.

(D) Location of existing and proposed water mains, storm sewers, and culverts.

(E) Slope, top of casing elevation, invert elevations, existing grade, proposed grade, distances between manholes, and vertical separation distances of sanitary sewers from water mains.

(3) The details of any lift stations, manholes, drop manholes, inverted siphons, air relief valves, water body crossing, or construction in a floodway.

(4) The details of the typical trench cross section.

(*Water Pollution Control Board; 327 IAC 3-6-5; filed May 17, 1999, 12:11 p.m.: 22 IR 3087*)

### **327 IAC 3-6-6 Required easements; other permits**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 6. (a) All easements for collection system rights-of-way must prohibit the construction of any permanent structure over the sanitary sewer and must also provide enough access for maintenance with mechanical equipment.

(b) All required permits or exemptions from other federal, state, and local units must be obtained prior to the commencement of construction of any sanitary sewer covered by this rule. (*Water Pollution Control Board; 327 IAC 3-6-6; filed May 17, 1999, 12:11 p.m.: 22 IR 3088*)

### **327 IAC 3-6-7 Issuance requirements for sanitary sewer construction permits**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 7. The application for any construction permit required by this article shall be denied unless the applicant submits evidence of the following:

(1) The peak daily flow rate, in accordance with section 11 of this rule generated in the area that will be collected by the project system, will not cause overflowing or bypassing in the collection system from locations other than NPDES authorized discharge points.

(2) Sufficient capacity exists in the receiving water pollution treatment/control facility to treat the additional daily flow.

(3) The receiving water pollution treatment/control facility will remain in compliance with applicable NPDES permit effluent limitations.

(4) The sanitary sewer or collection system that is the subject of the construction permit application is to connect to a water treatment/control facility that has been completed and put into operation.

(5) The proposed collection system does not include new combined sewers or a combined sewer extension to existing combined sewers.

(*Water Pollution Control Board; 327 IAC 3-6-7; filed May 17, 1999, 12:11 p.m.: 22 IR 3088*)

### **327 IAC 3-6-8 Sanitary sewer materials**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 8. (a) All piping, accessories, and other materials in a sanitary sewer shall conform to the following applicable standards:

(1) For ductile-iron and fittings, the following standards apply:

(A) American National Standard C104/A21.4-95 for

Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water.

(B) American National Standard C105/A21.5-93 for Polyethylene Encasement for Ductile-Iron Pipe Systems.

(C) American National Standard C110/A21.10-93 for Ductile-Iron and Gray-Iron Fittings, 3 In. through 48 In. (75 mm through 1,200 mm), for Water and Other Liquids.

(D) American National Standard C111/A21.50-90 for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.

(E) American National Standard C115/A21.15-94 for Flanged Ductile-Iron Pipe or Gray-Iron Threaded Flanges.

(F) American National Standard C150/A21.50-91 for the Thickness Design of Ductile-Iron Pipe.

(G) American National Standard C151/A21.51-91 for Ductile-Iron Pipe, Centrifugally Cast, for Water or Other Liquids.

(H) American National Standard C153/A-21.53-94 for Ductile-Iron Compact Fittings, 3 In. through 24 In. (76 mm through 610 mm) and 54 In. through 64 In. (1,400 mm through 1,600 mm), for Water Service.

(2) For clay pipe used in gravity sewers, the Vitrified Clay Pipe (VCP) Standard Specification for Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated, ASTM C700-96 shall apply.

(3) For concrete pipe used in gravity sewers, the following standards apply:

(A) Concrete Pipe (CP), ASTM C14-95, Standard Specification for Concrete Sewer, Storm Drain, and Culvert Pipe.

(B) Reinforced Concrete Pipe (RCP), ASTM C76-95a, Standard Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe.

(4) For asbestos-cement pipe, the following standards apply:

(A) AWWA C400-93 Standard for Asbestos-Cement Pressure Pipe, 4 In. through 16 In. (100 mm through 400 mm), for Water Distribution Systems.

(B) AWWA C401-93 Standard for the Selection of Asbestos-Cement Pressure Pipe, 4 In. through 16 In. (100 mm through 400 mm), for Water Distribution Systems.

(C) AWWA C402-89 Standard for Asbestos-Cement Transmission Pipe, 18 In. through 42 In. (450 mm through 1,050 mm), for Potable Water and Other Liquids.

(D) AWWA C403-89 Standard for the Selection of Asbestos-Cement Transmission and Feeder Main Pipe, Sizes 18 In. through 42 In. (450 mm through 1,050 mm).

(5) For plastic pipe used in gravity sewers, the following standards apply:

(A) ASTM D1785-96b, Standard Specification for Poly Vinyl Chloride (PVC) Plastic Pipe, Schedules 40, 80, and 120.

(B) ASTM D2680-95a, Standard Specification for Acrylonitrile-Butadiene-Styrene (ABS) and Poly Vinyl Chloride (PVC) Composite Sewer Piping.

(C) ASTM D3034-97, Standard Specification for Type PSM Poly Vinyl Chloride (PVC) Sewer Pipe and Fittings.

(D) ASTM F679-95, Standard Specification for Poly Vinyl Chloride (PVC) Large-Diameter Plastic Gravity Sewer Pipe and Fittings.

(E) ASTM F794-97, Standard Specification for Poly Vinyl Chloride (PVC) Profile Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter.

(F) ASTM F894-95, Standard Specification for Polyethylene (PE) Large Diameter Profile Wall Sewer and Drain Pipe.

(G) ASTM F949-96a, Standard Specification for Poly Vinyl Chloride (PVC) Corrugated Sewer Pipe with a Smooth Interior and Fittings.

(H) AWWA C900-89 Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4 In. through 12 In. for Water Distribution (includes addendum C900a-92).

(I) AWWA C905-88 Standard for Polyvinyl Chloride (PVC) Water Transmission Pipe, Nominal Diameters 14 In. through 36 In.

(6) For plastic pipe used in force mains, the following standards apply:

(A) ASTM D2241-96b, Standard Specification for Poly Vinyl Chloride (PVC) Pressure-Rated Pipe, (SDR21, greater than 4 inch diameter).

(B) ASTM D2241-96b, Standard Specification for Poly Vinyl Chloride (PVC) Pressure-Rated Pipe, (SDR26, less than 4 inch diameter).

(C) ASTM F714-97, Standard Specification for Polyethylene (PE) Plastic Pipe (SDR 21) Based on Outside Diameter.

(D) AWWA C900-89, Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4 In. through 12 In. for Water Distribution (includes addendum C900a-92).

(E) AWWA C905-88, Standard for Polyvinyl Chloride (PVC) Water Transmission Pipe, Nominal Diameters 14 In. through 36 In.

(b) Piping and accessories previously used exclusively for sanitary sewers or water mains may be reused if:

(1) the piping or accessories comply with the requirements of subsection (a); and

(2) the piping or accessories have been restored to their original condition.

(c) All connections between pipes shall have mechanical joints or slip-on joints with rubber gaskets with the exception of polyethylene (PE) pipes that may be thermojoined by a person who is a manufacturer's certified thermojoiner.

(d) Sanitary sewers constructed with polyvinyl chloride (PVC) and installed under existing or proposed roadways and railroads shall be cased in conformance with AWWA Standard C900-89, Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4 In. through 12 In. for Water Distribution, Appendix A, or AWWA Standard C905-88, Standard for Polyvinyl Chloride (PVC) Water Transmission Pipe, Nominal Diameters 14 In. through 36 In., Appendix A.

(e) Sanitary sewers that are cased shall conform to AWWA Standard C600-93, Section 6, Standard for Installation of Ductile-Iron Water Mains and Their Appurtenances.

(f) Force mains shall be identified as such when using water main materials.

(g) The minimum diameter of sanitary sewers shall be sized so that the peak daily flow, in accordance with section 11 of this rule, that will be collected from the proposed collection system that is the subject of the application, plans, and specifications:

(1) will not cause overflowing or bypassing in the same subject proposed collection system from locations other than NPDES authorized discharge points; and

(2) will be in accordance with the following:

(A) Gravity sewers shall not be less than eight (8) inches in diameter.

(B) Force mains shall not be less than four (4) inches in diameter.

*(Water Pollution Control Board; 327 IAC 3-6-8; filed May 17, 1999, 12:11 p.m.; 22 IR 3088; errata filed Dec 1, 2000, 5:25 p.m.; 24 IR 1033)*

### **327 IAC 3-6-9 Separation of collection systems from water mains and drinking water wells**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 9. (a) Sanitary sewers shall not be located within ten (10) feet of any existing or proposed water mains, when measured horizontally from the outside edge of the sanitary sewer to the outside edge of any existing and proposed water mains, unless the sanitary sewers and the water main comply with the following:

(1) The sanitary sewer and water main must cross with the sanitary sewer and water main separated by a

minimum of eighteen (18) inches measured vertically from the outside edge of the sanitary sewer to the outside edge of the water main.

(2) The crossing specified in subdivision (1) must be at a minimum angle of forty-five (45) degrees measured from the center lines of the sanitary sewer and water main.

(3) The conditions specified in subdivisions (1) and (2) must be maintained for a minimum distance of ten (10) feet from either side of the sanitary sewer as measured from the outside edge of the sanitary sewer to the outside edge of the water main.

(b) A shorter separation distance than that specified in subsection (a) is allowed if the following is conducted within the separation distances specified in subsection (a):

(1) The sanitary sewers meet all water main pressure testing requirements as described in 327 IAC 8-3.2-17(a).

(2) The sanitary sewer shall be constructed of materials in conformance with one (1) of the following:

(A) 327 IAC 8-3.2-8.

(B) Section 8(a)(1) of this rule.

(C) ASTM D2241-96b, Standard Specification for Poly Vinyl Chloride (PVC) Pressure-Rated Pipe, and having a SDR (standard dimension ratio) of 21.

(3) The sanitary sewers and water mains are not in contact.

(4) Any sanitary sewer joints are a compression type joint that are placed equidistantly from the water main.

(5) The sanitary sewer and water main are laid on separate trench shelves.

(c) No sanitary sewer manhole shall be within eight (8) feet of a water main as measured from the outside edge of the sanitary sewer manhole to the outside edge of the water main.

(d) Sanitary sewers shall not be within the isolation area of a public water system drinking water well unless in accordance with the following:

(1) The sanitary sewers meet all water main pressure testing requirements as described in 327 IAC 8-3.2-17(a).

(2) The sanitary sewer shall be constructed of materials in conformance with one (1) of the following:

(A) 327 IAC 8-3.2-8.

(B) Section 8(a)(1) of this rule.

(C) ASTM D2241-96b, Standard Specification for Poly Vinyl Chloride (PVC) Pressure-Rated Pipe, and having a SDR ratio of 21.

(3) The sanitary sewers are no closer than fifty (50) feet from the public water system drinking water well as measured from the outside edge of the sanitary sewer to the outside edge of the well casing.

(e) Sanitary lift stations shall not be located within ten

(10) feet measured horizontally from the outside edge of the lift station to the outside edge of any existing and proposed water mains.

(f) The following shall not be located within the isolation area of a public water system drinking water well:

(1) Sanitary lift stations.

(2) Sanitary sewer manholes.

*(Water Pollution Control Board; 327 IAC 3-6-9; filed May 17, 1999, 12:11 p.m.: 22 IR 3089; errata filed Dec 1, 2000, 5:25 p.m.: 24 IR 1033)*

### **327 IAC 3-6-10 Collection systems near surface water bodies**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 10. (a) Sanitary sewers and lift stations shall be separated from existing or proposed water bodies by ten (10) feet horizontally measured from the outside edge of the sanitary sewer to the edge of the water line at normal pool elevation.

(b) Sanitary sewers located above surface water bodies shall be in accordance with the following:

(1) Supported and anchored at each joint.

(2) Protected from damage and freezing with any of the following:

(A) Insulation.

(B) Increased slope.

(3) Accessible for repair or replacement.

(c) Sanitary sewers located under surface water bodies shall be constructed with ductile iron pipe or constructed of PVC having a SDR ratio of 21 and in conformance with ASTM D2241-96b, Standard Specification for Poly Vinyl Chloride (PVC) Pressure-Rated Pipe, with mechanical joints rated to two hundred (200) pounds per square inch and backfilled with a stone, gravel, or coarse aggregate and covered in accordance with the following:

(1) Below the channel pavement if the channel is paved.

(2) Twelve (12) inches of cover shall be provided where the sewer is located in rock.

(3) Thirty-six (36) inches of cover shall be provided in all other areas.

(d) Sanitary sewers, other than inverted siphons in conformance with section 17 of this rule, that cross streams or rivers shall be in accordance with the following:

(1) Cross perpendicular to the stream flow.

(2) Have no change in grade.

(e) Sanitary lift stations shall be capable of remaining fully operational and accessible during a twenty-five (25) year flood.

(f) Sanitary lift stations, structures, and electrical and mechanical equipment shall be protected from physical damage potentially caused by a one hundred (100) year flood. (*Water Pollution Control Board; 327 IAC 3-6-10; filed May 17, 1999, 12:11 p.m.: 22 IR 3090; errata filed May 20, 1999, 6:36 p.m.: 22 IR 3108*)

**327 IAC 3-6-11 Design flow rate requirements for collection systems and water pollution treatment/control facilities**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 11. (a) The flow rate requirements for collection systems and water pollution treatment/control facilities shall be in accordance with this section. The calculated average and peak flow rate values for a collection system and its associated water pollution treatment/control facilities shall be at least equal to the average and peak daily flow rate of the existing influent plus the flow from the proposed additional service connections calculated as follows:

(1) The flow rate requirements for the average daily flow rate for residential service connections may be determined by using a general average daily flow rate value. The following method shall be used to calculate average and peak flow rate values:

$$\text{ADF} = (\text{General Avg}) \times \text{PRSC}$$

$$\text{PDF} = \text{ADF} \times \text{PF}$$

Where: ADF = Average daily flow rate expressed as gallons per residential service connection per day.

PDF = Peak daily flow rate expressed as gallons per residential service connection per day.

General Avg = General average daily flow rate value in accordance in the following:

200 gpd/unit for 1 bedroom apartment.

300 gpd/unit for 2 bedroom apartment.

310 gpd/unit for single-family homes.

PRSC = Proposed number of residential service connections.

PF = Peak daily factor of four (4).

(2) The flow rate requirements for the average and peak flow rate for service connections are described by Table 11-1 in subsection (b). The following method may be used to calculate the average and peak flow rate requirements:

$$\text{ADF} = \text{FCF} \times \text{PSC}$$

$$\text{PDF} = \text{ADF} \times \text{PF}$$

Where: ADF = Average daily flow rate expressed as gallons per service connection per day.

PDF = Peak daily flow rate expressed as gallons per service connection per day.

FCF = Flow calculation factors as contained in Table 11-1 in subsection (b).

PSC = Proposed number of service connections.

PF = Peak daily factor of four (4).

(3) If the average and peak daily flow cannot be determined or calculated using the methods described in subdivision (1) or (2), the determination of the average and peak daily flow shall be presented and approved pursuant to section 32 of this rule.

(b) The following flow calculation factors shall be used in the calculations under subsection(a)(2):

Table 11-1

Flow Calculation Factors (FCF)

Service Connection Description	FCF (gallons per day)
Agricultural labor camp	50 per occupant
Airport	3 per passenger plus 20 per employee
Assembly hall	3 per seat
Athletic field (baseball, soccer, football, etc.)	1 per participant and spectator with additions for concessions
Auction and flea market: with full kitchen	5 per customer
Auction and flea market: with warming kitchen	4 per customer
Auction and flea market: without kitchen	3 per customer
Automatic self-cleaning bathroom	20 per cycle (3 per day)
Banquet caterer	10 per person
Bar (without food)	10 per seat
Beauty salon: perm or color changes	35 per customer
Beauty salon: cut with wash	10 per customer
Beauty salon: cut without wash	5 per person
Bed and breakfast	150 per bedroom
Bowling alley (with bar and/or food)	125 per lane

Bowling alley (without food)	75 per lane	Food service operations: cocktail lounge or tavern	35 per seat
Bus station	3 per passenger	Food service operations: restaurant (not open 24 hours)	35 per seat
Campground (organizational) with flush toilets, showers, central kitchen	40 per camper	Food service operations: restaurant (open 24 hours)	50 per seat
Campground (organizational) without flush toilets, privy use, central dining hall, no showers, handwashing	20 per camper	Food service operations: restaurant (not open 24 hours but located along an interstate)	50 per seat
Campground (recreational) with individual sewer connection	100 per campsite	Food service operations: restaurant (open 24 hours and located along an interstate)	70 per seat
Campground (recreational) without individual sewer connection	50 per campsite	Food service operations: tavern	35 per seat
Church with full kitchen	5 per sanctuary seat	Food service operations: curb service (drive-in)	50 per car space
Church with warming kitchen	4 per sanctuary seat	Golf comfort station	3 per 50% of maximum number of golfers
Church without kitchen	3 per sanctuary seat	Golf main clubhouse	5 per golfer with additions for food service and showers
Condominium, multi-family dwelling: one bedroom	200 per unit	Hospital, medical facility	200 per bed
Condominium, multi-family dwelling: two bedroom	300 per unit	Hotel	100 per room
Condominium, multi-family dwelling: three bedroom	350 per unit	Kennels and vet clinics (sum of all of the following services at a facility):	
Condominium, one and two family dwelling	150 per bedroom	1) a. cages;	5 per cage
Conferences	10 per attendee	b. inside runs;	10 per run
Correctional facilities	120 per inmate	c. outside runs;	20 per run
Day care center	20 per person	d. grooming;	10 per animal
Dentist	200 per chair plus 75 per employee	e. surgery; plus	50 per surgery room
Doctor's office	75 per doctor, plus 75 per nurse, plus 20 per support staff	2) staff	75 per veterinary doctor, plus 75 per veterinary assistant, plus 20 per support staff
Factory with showers	35 per employee	Mental health facility	100 per patient
Factory without showers	20 per employee	Mobile home park	200 per lot
Fire station: manned	75 per firefighter	Motel	100 per room
Fire station: unmanned	35 per firefighter	Nursing home	100 per bed

Office building without showers	20 per employee	16	0.14
Office building with showers	35 per employee	18	0.12
Office building with showers	50 per employee	21	0.10
Outpatient surgical center	50 per patient	24	0.08
Outpatient surgical center	50 per patient	27	0.067
Picnic area	5 per visitor	30	0.058
Race tracks	5 per attendee, 20 per staff	33	0.052
School: elementary	15 per pupil	36	0.046
School: secondary	25 per pupil	39	0.041
School with dormitory	100 per bed	42	0.037
Service station: convenience store/service center	1,000 with additions for food preparation and seating		
Service station with only two (2) restrooms	400 per restroom		
Service station with only unisex restroom	600 per restroom		
Service station: automatic self-cleaning bathroom	60 per day		
Shopping center	0.1 per square foot of floor space, plus 20 per employee		
Swimming pool bathhouse	10 per swimmer		
Theater: drive-in	5 per car space		
Theater: inside building	5 per seat		

(Water Pollution Control Board; 327 IAC 3-6-11; filed May 17, 1999, 12:11 p.m.: 22 IR 3090; errata filed May 20, 1999, 6:36 p.m.: 22 IR 3108)

### 327 IAC 3-6-12 Slope requirements for gravity sewers

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2  
**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 12. (a) Gravity sewers, when flowing full, shall be designed and constructed with slopes that shall result in average flow velocities of not less than two (2) feet per second in accordance with the following:

#### Minimum Slopes

Pipe Diameter (inches)	Minimum Slope (percent)
8	0.40
10	0.28
12	0.22
14	0.17
15	0.15

(b) Oversized gravity sewers shall not be approved to justify using decreased slopes.

(c) The slope of a gravity sewer, between any two (2) manholes, shall be uniform across the distance from the outlet invert elevation of the upstream pipe and the inlet invert elevation of the downstream pipe.

(d) Gravity sewers shall be provided with anchors to protect against damage from impact and erosion in accordance with the following:

(1) Slopes greater than twenty percent (20%) shall be provided with anchors spaced no more than thirty-six (36) feet on center.

(2) Slopes greater than thirty-five percent (35%) shall be provided with anchors spaced no more than twenty-four (24) feet on center.

(3) Slopes greater than fifty percent (50%) shall be provided with anchors spaced no more than sixteen (16) feet on center.

(Water Pollution Control Board; 327 IAC 3-6-12; filed May 17, 1999, 12:11 p.m.: 22 IR 3092; errata filed May 20, 1999, 6:36 p.m.: 22 IR 3108)

### 327 IAC 3-6-13 Force main requirements

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2  
**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 13. In addition to the force main requirements specified throughout this rule, the following apply:

(1) Force mains shall be sized to provide a cleansing velocity of at least two (2) feet per second throughout the length of the sewer at the design pumping rate.

(2) Force main pipe and joint materials shall be equivalent to water main strength at design conditions.

(3) Air relief valves or other air relief devices shall be installed at every intermediate apex point where air may accumulate in the force main.

(4) Each air relief valve that exhausts above ground must be equipped with an exhaust pipe extending to a downward facing elbow covered with a corrosion-resistant, twenty-four (24) mesh screened opening at an elevation of eighteen (18) inches above ground

level.

(5) Air relief valves shall be selected in accordance with the following:

(A) Automatic air relief valves shall not be used in areas:

- (i) within the one hundred (100) year flood plain; or
- (ii) where flooding may occur, such as in:
  - (AA) a pit;
  - (BB) a chamber; or
  - (CC) a manhole;

unless the automatic air relief valve is equipped with a downward facing exhaust pipe covered with a corrosion-resistant, twenty-four (24) mesh screened opening at an elevation of eighteen (18) inches above the ground surface and above the one hundred (100) year flood elevation.

(B) Manually operated air relief valves shall be used in areas:

- (i) within the one hundred (100) year flood plain; and
- (ii) where flooding may occur, such as in:
  - (AA) a pit;
  - (BB) a chamber; or
  - (CC) a manhole.

(6) The following reaction devices installed to prevent movement in pipes and fittings, of any material type, shall be designed in conformance with Section 3.8 of AWWA Standard C600-93, AWWA Standard for Installation of Ductile-Iron Water Mains and Their Appurtenances:

- (A) Blocking.
- (B) Tie rods.
- (C) Joints.

*(Water Pollution Control Board; 327 IAC 3-6-13; filed May 17, 1999, 12:11 p.m.: 22 IR 3093)*

### **327 IAC 3-6-14 Changes in pipe size**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 14. A sanitary sewer pipe where joined with a larger diameter sewer pipe shall have the invert of the larger diameter pipe lowered to maintain the same energy gradient as the smaller pipe. *(Water Pollution Control Board; 327 IAC 3-6-14; filed May 17, 1999, 12:11 p.m.: 22 IR 3093)*

### **327 IAC 3-6-15 Alignment requirements**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 15. A sanitary sewer, between any two (2) man-

holes, shall be laid with straight alignment from the outlet centerline of the upstream pipe and the inlet centerline of the downstream pipe. *(Water Pollution Control Board; 327 IAC 3-6-15; filed May 17, 1999, 12:11 p.m.: 22 IR 3093)*

### **327 IAC 3-6-16 Manholes**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 16. (a) Manholes shall be constructed of:

- (1) precast concrete that has lift holes; or
- (2) poured-in-place concrete;

and shall have grade adjustment rings sealed with nonshrinking mortar in conformance with ASTM C478-96, Standard Specification for Precast Reinforced Concrete Manhole Sections.

(b) Inlet or outlet pipes shall be joined to the manhole with a gasketed, flexible, and watertight connection.

(c) Manholes shall have a minimum diameter of forty-eight (48) inches and a minimum access diameter of twenty-two (22) inches.

(d) Watertight manhole covers shall be used in any area where the manhole tops are:

- (1) subject to flooding by street run-off or high water;
- (2) in a floodway; or
- (3) in a floodplain.

(e) Manholes shall be located as follows:

- (1) At all end points of sanitary sewers.
- (2) Wherever changes occur in grade, size, or alignment of the sanitary sewer.
- (3) At all intersections of sanitary sewers.
- (4) With separation distances between any two (2) manholes not to be greater than the following:

(A) Four hundred (400) feet for sanitary sewers less than fifteen (15) inches in diameter.

(B) Five hundred (500) feet for sanitary sewers equal to or greater than fifteen (15) inches and less than thirty (30) inches in diameter.

(C) Six hundred (600) feet for sanitary sewers equal to or greater than thirty (30) inches in diameter.

(f) All upstream sanitary sewers less than twenty-four (24) inches from the manhole invert shall be filleted to prevent solids deposition. Drop pipes shall be provided for incoming sanitary sewers entering a manhole at an elevation of twenty-four (24) inches or more above the manhole invert and shall be in accordance with the following:

- (1) Drop pipe connections on the inside of manholes shall be secured to the interior wall of the manhole and provide access for cleaning.
- (2) Drop pipe connections on the outside of manholes

shall be encased in concrete.

(g) A flow channel that conforms to the shape of the connecting sanitary sewer shall be made through the bottom surface of the manhole. The channel walls shall be formed or shaped to the full height of the crown of the outlet sewer.

(h) A bench shall:

- (1) be provided on each side of any flow channel if the pipe diameter is less than the manhole diameter;
- (2) have a surface slope of no less than four percent (4%); and
- (3) receive no discharge onto the surface of the bench from a:

- (A) lateral;
- (B) service connection; or
- (C) drop manhole pipe.

(i) The inlet to a manhole from a force main shall enter the manhole at an elevation less than twenty-four (24) inches above the flow line of the receiving manhole.

(j) Manholes shall be air tested in accordance with ASTM C1244-93, Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test. (*Water Pollution Control Board; 327 IAC 3-6-16; filed May 17, 1999, 12:11 p.m.: 22 IR 3093; errata filed Dec 1, 2000, 5:25 p.m.: 24 IR 1033*)

### 327 IAC 3-6-17 Inverted siphons

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 17. (a) Inverted siphons shall have:

- (1) not less than two (2) barrels; and
- (2) a minimum pipe size of six (6) inches in diameter.

(b) The minimum design velocity, at average flow, shall be three (3) feet per second measured at a point immediately preceding the outlet. (*Water Pollution Control Board; 327 IAC 3-6-17; filed May 17, 1999, 12:11 p.m.: 22 IR 3094*)

### 327 IAC 3-6-18 Installation

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 18. (a) All gravity sewers, force mains, and the accessories to either shall be installed in accordance with the one of the following:

- (1) ASTM C12-95, Standard Practice for Installing Vitrified Clay Pipe Lines.
- (2) ASTM D2321-89, Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications.
- (3) AWWA standard C600-93, AWWA Standard for

Installation of Ductile-Iron Water Mains and Their Appurtenances.

(4) AWWA standard C602-89, AWWA Standard for Cement-Mortar Lining of Water Pipelines—4 In. (100 mm) and Larger—In Place.

(5) AWWA standard C603-90, AWWA Standard for Installation of Asbestos—Cement Pressure Pipe.

(6) AWWA standard C605-94, AWWA Standard for Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water.

(7) AWWA standard C606-87, AWWA Standard for Grooved and Shouldered Joints.

(b) If an ASTM or AWWA standard as allowed by subsection (a) is not applicable for the particular installation, the manufacturer's recommended installation procedure shall be followed.

(c) Continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a height above the pipe capable to support and protect the pipe.

(d) All ledge rock, boulders, and stones unable to pass through an opening of two (2) inches that are found in the trench within four (4) inches of the outside edge of all sewer pipe shall be removed.

(e) Sanitary sewers shall be covered with at least thirty-six (36) inches of earthen cover measured from the top of pipe to the proposed finish grade.

(f) Bedding classes A, B, C, or crushed stone as described in ASTM C12-95, Standard Practice for Installing Vitrified Clay Pipe Lines, shall be used and compacted for all rigid pipe installation.

(g) Embedment materials for bedding, haunching, and initial backfill, Class I, II, or III as described in ASTM D2321-89, Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications, shall be used and compacted for all flexible pipe installation.

(h) Final backfill shall:

(1) be placed in a manner that will not disturb the sanitary sewer pipe; and

(2) not consist of the following:

- (A) Debris.
- (B) Organic material.
- (C) Frozen material.
- (D) Unstable materials.

(E) Boulders or stones unable to pass through an opening of two (2) inches that are placed within two (2) feet of the sewer pipe as measured radially from the outside edge of the sewer.

(*Water Pollution Control Board; 327 IAC 3-6-18; filed May 17, 1999, 12:11 p.m.: 22 IR 3094; errata filed Dec 1, 2000, 5:25 p.m.: 24 IR 1033*)

**327 IAC 3-6-19 Deflection and leakage tests**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 19. (a) A deflection test shall be performed on each flexible pipe following the elapse of thirty (30) days after the placement of the final backfill.

(b) No pipe shall exceed a deflection of five percent (5%) or greater.

(c) The diameter of the rigid ball or mandrel used for a deflection test shall be no less than ninety-five percent (95%) of the base inside diameter of the pipe to be tested dependent on what is specified in the corresponding ASTM standard. The test shall not be performed with the aid of a mechanical pulling device.

(d) All gravity sewer pipe shall be tested using one (1) of the following leakage test types:

(1) A hydrostatic test shall be performed with a minimum of two (2) feet of positive head. The rate of exfiltration or infiltration shall not exceed two hundred (200) gallons per inch of pipe diameter per linear mile per day.

(2) An air test shall conform to one (1) of the following methods:

(A) ASTM C828-90, Standard Test Method for Low-Pressure Air Test of Vitrified Clay Pipe Lines, for clay pipe.

(B) ASTM C 924-89, Standard Practice for Testing Concrete Pipe Sewer Lines by Low-Pressure Air Test Method, for concrete pipe.

(C) ASTM F1417-92, Standard Test Method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air, for plastic pipe.

(e) All force mains shall be pressure and leak tested in accordance with one (1) of the following methods:

(1) AWWA standard C600-93, AWWA Standard for Installation of Ductile-Iron Water Mains and Their Appurtenances.

(2) AWWA standard C602-89, AWWA Standard for Cement-Mortar Lining of Water Pipelines-4 In. (100 mm) and Larger-In Place.

(3) AWWA standard C603-90, AWWA Standard for Installation of Asbestos—Cement Pressure Pipe.

(4) AWWA standard C605-94, AWWA Standard for Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water.

(5) AWWA standard C606-87, AWWA Standard for Grooved and Shouldered Joints.

If an AWWA standard is not available for the particular installation, the installation procedure recommended by the manufacturer shall be followed. (*Water Pollution Control Board; 327 IAC 3-6-19; filed May 17, 1999,*

*12:11 p.m.: 22 IR 3095; errata filed Dec 1, 2000, 5:25 p.m.: 24 IR 1033*)

**327 IAC 3-6-20 Excavation water; pressure test water**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 20. (a) All water entering a sanitary sewer project excavation, prior to construction completion, shall be removed.

(b) All excavation water or pressure test water shall be disposed in one (1) of the following manners:

(1) Disposal to a sanitary sewer only after receiving the approval of the local sewer authority.

(2) Disposal to a location other than a sanitary sewer in accordance with state and federal laws and regulations. (*Water Pollution Control Board; 327 IAC 3-6-20; filed May 17, 1999, 12:11 p.m.: 22 IR 3095*)

**327 IAC 3-6-21 Lift station valve requirements**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 21. (a) Lift stations shall be provided with shutoff valves and check valves that are operable from the floor level.

(b) Shutoff valves and check valves shall be in accordance with the following:

(1) Shutoff valves shall be placed on the suction line of dry pit pumps.

(2) Shutoff valves and check valves shall be placed on the discharge line of each pump that is not a screw pump.

(3) The check valve shall be:

(A) located between the shutoff valve and the pump;

(B) suitable for the material being handled;

(C) placed on the horizontal portion of the discharge piping except for ball check valves; and

(D) rated for the normal pressure and water hammer.

(*Water Pollution Control Board; 327 IAC 3-6-21; filed May 17, 1999, 12:11 p.m.: 22 IR 3096*)

**327 IAC 3-6-22 Ventilation**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 22. (a) Ventilation shall be provided for all pump stations.

(b) No interconnection of ventilation systems shall exist between wet wells and dry wells.

(c) All intermittently operated ventilation equipment shall be electrically interconnected with the respective lift station lighting systems.

(d) All manual ventilation and lighting switches shall override any automatic controls.

(e) All fan wheels shall be fabricated from nonsparking material.

(f) Dry wells that are located underground shall be provided with mechanical ventilation in accordance with the following:

(1) Continuous ventilation that provides at least six (6) complete air changes per hour.

(2) Intermittent ventilation that provides at least thirty (30) complete air changes per hour.

(3) A combined ventilation consisting of ten (10) minutes of ventilation at a rate of thirty (30) complete air changes per hour followed by an automatic switch to six (6) complete air changes per hour may be used to conserve heat.

(g) Wet wells with screens or mechanical equipment shall be equipped with permanently installed mechanical ventilation in accordance with the following:

(1) Continuous ventilation that provides at least twelve (12) complete air changes per hour.

(2) Intermittent ventilation that provides at least thirty (30) complete air changes per hour.

(h) All pulleys and belts shall be of a static electricity dissipating type. (*Water Pollution Control Board; 327 IAC 3-6-22; filed May 17, 1999, 12:11 p.m.: 22 IR 3096*)

### **327 IAC 3-6-23 Lift station pumps**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 23. (a) Multiple pumps shall be provided in each lift station. If no more than two (2) units are provided in a lift station, each pump shall be rated for the capacity that is capable of pumping the design peak hourly flow.

(b) Lift station pumps shall be in accordance with the following:

(1) Capable of passing spheres at least three (3) inches in diameter.

(2) Have lift station pump suction and discharge openings at least four (4) inches in diameter.

(3) Positioned at an elevation to allow operation with a positive head under normal operating conditions, with the exception of suction-lift pump stations.

(4) Have individual intakes.

(5) Have a design capacity based on peak hourly flow.

(c) Electrical switching equipment shall be installed at lift stations to automatically alternate the pumps in use.

(d) Dry wells shall be equipped with sump pump

equipment having:

(1) dual check valves to remove leakage or drainage into the dry well; and

(2) a capacity rating able to remove the maximum pump seal water discharge.

(*Water Pollution Control Board; 327 IAC 3-6-23; filed May 17, 1999, 12:11 p.m.: 22 IR 3096*)

### **327 IAC 3-6-24 Electrical requirements**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 24. The National Electrical Code requirements for Class I, Group D, Division 1 locations shall govern electrical systems and components used in wet wells or in enclosed or partially enclosed areas where concentrations of flammable gases or vapors may be present. The components may include such equipment as motors, lights, cables, conduits, switch boxes, and control circuits, and all shall comply with the following:

(1) Be protected against corrosive conditions.

(2) Each flexible cable shall be provided with a water-tight seal and separate strain relief.

(3) The main power feed to all lift stations shall be equipped with a fused disconnect switch located aboveground.

(4) The equipment, if not housed, shall meet the requirements of NEMA 3R or 4.

(*Water Pollution Control Board; 327 IAC 3-6-24; filed May 17, 1999, 12:11 p.m.: 22 IR 3096*)

### **327 IAC 3-6-25 Safety requirements**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 25. Each lift station shall be provided with an audible and visual alarm system that gives an alert for the following problems:

(1) Power failure.

(2) Sump pump failure.

(3) Pump failure.

(4) Unauthorized entry.

(5) Any pump station malfunction.

(*Water Pollution Control Board; 327 IAC 3-6-25; filed May 17, 1999, 12:11 p.m.: 22 IR 3097*)

### **327 IAC 3-6-26 Dry wells**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 26. Dry wells shall be provided with automatic

heating and dehumidification equipment. (*Water Pollution Control Board; 327 IAC 3-6-26; filed May 17, 1999, 12:11 p.m.: 22 IR 3097*)

### **327 IAC 3-6-27 Wet wells**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 27. (a) The effective volume of a wet well shall not be greater than the volume created by the average daily flow in thirty (30) minutes.

(b) The floor of a wet well shall have a minimum slope of forty-five (45) degrees to a hopper bottom.

(c) A wet well that is covered shall be vented to allow for the displacement of air due to the filling of the wet well. (*Water Pollution Control Board; 327 IAC 3-6-27; filed May 17, 1999, 12:11 p.m.: 22 IR 3097*)

### **327 IAC 3-6-28 Suction-lift type lift stations**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 28. (a) In addition to the requirements for lift stations described throughout this rule, suction-lift stations shall have one (1) of the following type pumps that are in accordance with the associated requisite conditions:

(1) Self priming pumps shall:

(A) be capable of rapid priming and repriming at the lead pump on elevation;

(B) be capable of self-priming and repriming automatically under design operating conditions;

(C) have suction piping that shall not exceed twenty-five (25) feet in length;

(D) be capable of maintaining priming lift at the lead pump on elevation that shall include a safety factor of at least four (4) feet from the maximum allowable priming lift for the specific equipment at design operating conditions; and

(E) be capable of maintaining a combined total of the dynamic suction lift at the pump off elevation and the required net positive suction head at design operating conditions that shall not exceed twenty-two (22) feet.

(2) Vacuum priming pumps shall:

(A) be equipped with dual vacuum pumps capable of automatically and completely removing air from the suction-lift pump; and

(B) be capable of maintaining a combined total of the dynamic suction lift at the pump off elevation and the required net positive suction head at design operating conditions that shall not exceed twenty-

two (22) feet.

(b) The pump equipment compartment for all pump types of subsection (a) shall be located above grade or separate from the wet well. Wet well access shall be at least twenty-four (24) inches in diameter but shall not be through the pump equipment compartment. Valving shall not be located in the wet well. (*Water Pollution Control Board; 327 IAC 3-6-28; filed May 17, 1999, 12:11 p.m.: 22 IR 3097*)

### **327 IAC 3-6-29 Submersible type lift stations**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 29. Submersible type lift stations shall meet the requirements for lift stations described throughout this rule, except as modified in accordance with the following:

(1) Submersible pumps and motors shall be:

(A) rated for use with wastewater;

(B) in accordance with the specialized requirements of the National Electric Code; and

(C) provided with a method of detecting shaft seal failure or potential seal failure on each pump and motor.

(2) Submersible pumps shall be provided with means to be replaced without dewatering of the wet well or disconnecting any piping in the wet well.

(3) Electrical supply, motor and pump control, and alarm circuits shall be:

(A) accessible from outside the wet well for disconnection; and

(B) protected from exposure in accordance with the specialized requirements of the National Electric Code.

(4) Valves required in section 21 of this rule shall be located in a separate valve pit.

(5) The valve pit of subdivision (4) shall be equipped:

(A) with a method of dewatering; and

(B) with a drain line having a gas and water tight valve if the valve pit is to be dewatered.

(6) Check valves that are integral to the pump need not be placed in the valve pit.

(*Water Pollution Control Board; 327 IAC 3-6-29; filed May 17, 1999, 12:11 p.m.: 22 IR 3097*)

### **327 IAC 3-6-30 Emergency operation**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 30. A lift station shall be provided with the equipment necessary for the provision of one (1) of the

following:

- (1) Dual power feeds.
- (2) Standby generators.
- (3) Standby pumps.

(*Water Pollution Control Board; 327 IAC 3-6-30; filed May 17, 1999, 12:11 p.m.: 22 IR 3098; errata filed May 20, 1999, 6:36 p.m.: 22 IR 3108*)

### **327 IAC 3-6-31 Cross connection control**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 31. There shall be no physical connection from a public or private potable water system to a sanitary collection system, or any structure related to such a system, that would permit the passage of any wastewater or polluted water into the potable supply. (*Water Pollution Control Board; 327 IAC 3-6-31; filed May 17, 1999, 12:11 p.m.: 22 IR 3098*)

### **327 IAC 3-6-32 Technical standard alternative demonstration**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

**Affected:** IC 13-11-2; IC 13-15; IC 13-18

Sec. 32. (a) An alternative to technical standards required by this rule may be approved by the commissioner for either a single application or for system-wide applications if the applicant demonstrates in a written submission that the alternative will achieve the following:

- (1) Meet the issuance requirements of section 7 of this rule.
- (2) Provide at least the same level of protection that the technical standards of this rule would provide.

(b) An approved alternative to a technical standard shall be in effect for one (1) year from the commissioner's approval of that alternative standard.

(c) An alternative to a technical standard shall only apply to the application or the system for which the alternative is requested. (*Water Pollution Control Board; 327 IAC 3-6-32; filed May 17, 1999, 12:11 p.m.: 22 IR 3098*)

## **ARTICLE 4. WASTEWATER TREATMENT FACILITIES; OVERLOAD CONDITION**

Rule 1. General

### **Rule 1. General**

327 IAC 4-1-1	Purpose
327 IAC 4-1-2	Definitions
327 IAC 4-1-3	Early warning system

327 IAC 4-1-4	Imposition of sewer connection bans
327 IAC 4-1-5	Notification of imposition of sewer connection ban
327 IAC 4-1-6	Grounds and procedures for obtaining waivers of sewer connection bans
327 IAC 4-1-7	Grounds for termination of sewer connection ban
327 IAC 4-1-8	Exclusions from sewer connection bans
327 IAC 4-1-9	Appeals
327 IAC 4-1-10	Enforcement
327 IAC 4-1-11	Access to information

### **327 IAC 4-1-1 Purpose**

**Authority:** IC 13-1-3-7; IC 13-7-7-5

**Affected:** IC 13-1-3; IC 13-7

Sec. 1. This article is promulgated in order to prevent the excessive hydraulic and/or organic overloading of POTWs or semipublic facilities resulting in the subsequent discharge or bypassing of insufficiently treated sewage due to new sewer connections to such overloaded POTWs or semipublic facilities. (*Water Pollution Control Board; 327 IAC 4-1-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 611; filed Mar 2, 1994, 5:00 p.m.: 17 IR 1615; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 4-1-2 Definitions**

**Authority:** IC 13-1-3-7; IC 13-7-7-5

**Affected:** IC 8-1-2-89; IC 13-1-3-1.5; IC 13-7-1

Sec. 2. In addition to the definitions contained in IC 13-7-1, IC 13-1-3-1.5, and 327 IAC 1, the following definitions apply throughout this article:

- (1) "Combined sewer" means a sewer designed and employed to receive both water-carried and/or liquid wastes and storm and/or surface water.
- (2) "Discharge" or "direct discharge", when used without qualification, means a discharge of a pollutant.
- (3) "Discharge of a pollutant" means any addition of any pollutant, or combination of pollutants, into any waters of the state of Indiana from a point source in Indiana. The term includes, without limitation, additions of pollutants into waters of the state from the following:
  - (A) Surface run-off which is collected or channeled by man.
  - (B) Discharges through pipes, sewers, or other conveyances which do not lead to treatment works.
- (4) "Effluent limitation" means any restriction established by the commissioner on quantities, discharge rates, and concentrations of pollutants that are discharged or will be discharged from point sources into waters of the state of Indiana.
- (5) "Environmental Protection Agency" or "EPA"

means the United States Environmental Protection Agency.

(6) "Hazardous substance" means any substance designated under 40 CFR 116 pursuant to Section 311 of the Clean Water Act (CWA).

(7) "NPDES permit" means a written authorization issued by the commissioner or the EPA to regulate the discharge of pollutants pursuant to Section 402 of the CWA or corresponding state law (327 IAC 5).

(8) "Person" means an individual, partnership, copartnership, firm, company, corporation, association, joint stock company, trust, estate, municipal corporation, city, school city, town, school town, school district, school corporation, county, consolidated unit of government, political subdivision, state agency, or any other legal entity.

(9) "Point source" means any discernible, confined, and discrete conveyance, including, but not limited to, any:

- (A) pipe;
- (B) ditch;
- (C) channel;
- (D) tunnel;
- (E) conduit;
- (F) well discrete fissure;
- (G) container;
- (H) rolling stock;
- (I) vessel; or
- (J) other floating craft;

from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

(10) "Pollutant" means, but the definition is not necessarily limited to:

- (A) dredged spoil;
- (B) incinerator residue;
- (C) filter backwash;
- (D) sewage;
- (E) garbage;
- (F) sewage sludge;
- (G) munitions;
- (H) chemical wastes;
- (I) solid wastes;
- (J) toxic wastes;
- (K) hazardous substances;
- (L) biological materials;
- (M) radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended; 42 U.S.C. 2011, et seq.);
- (N) heat, wrecked, or discarded equipment;
- (O) rock;
- (P) sand;
- (Q) cellar dirt; and

(R) other industrial, municipal, and agricultural waste;

discharged into water.

(11) "Publicly owned treatment works" or "POTW" means a treatment works as defined by Section 212(2) of the CWA which is owned by the state or a municipality (as defined by Section 502(4) of the CWA), except that it does not include pipes, sewers, or other conveyances not connected to a facility providing treatment. The definition includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or compatible industrial wastes. "POTW" also means the municipality, as defined by Section 502(4) of the CWA, including, without limitation, a city, town, county, or other public body created by or pursuant to state law, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

(12) "Sanitary sewer" means a sewer that conveys liquid and water-carried wastes from residences, commercial buildings, industrial plants, and institutions; and to which storm, surface, and ground waters are not intentionally allowed to enter.

(13) "Semipublic facilities" means a treatment works as defined by Section 212(2) (33 U.S.C. 1292(2)) of the CWA, 33 U.S.C. 1251, et seq., in effect on November 13, 1991, that is not a POTW, is not state or federally owned, or is not an industrial wastewater treatment plant as defined by 327 IAC 8-12-2(b). Semipublic facilities include, but are not limited to, the following:

- (A) Rural sewage disposal services provided by sewage disposal companies as defined by IC 8-1-2-89(a)(2).
- (B) Trailer or mobile home parks.
- (C) Commercial or shopping centers.
- (D) Housing developments.
- (E) Truck stops.
- (F) Restaurants.
- (G) Schools.
- (H) Campgrounds.

(14) "Sewer" means a pipe or conduit that carries wastewater or drainage water.

(15) "Source" means any building, structure, facility, or installation from which there is or may be a discharge of domestic sewage or other wastewater into a semipublic facility or POTW.

(16) "Wastewater" means liquid or water-carried wastes from industrial, municipal, agricultural, or other sources.

(17) "Water pollution treatment/control facility" means any equipment, device, unit, structure, etc., that is used to control, prevent, pretreat, or treat any discharge or

threatened discharge of pollutants into any waters of the state of Indiana, including surface and subsurface waters and public or private sewerage systems. The term includes, but is not limited to, the following:

- (A) Treatment facilities.
- (B) Combined sewers.
- (C) Sanitary sewers.
- (D) Lift (pumping) stations.

(18) "Waters of the state of Indiana" or "waters of the state" means such accumulations of water, surface and underground, natural and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon this state, but the term does not include any private pond or any off-stream pond, reservoir, or facility built for reduction or control of pollution or cooling of water prior to the discharge unless the discharge therefrom causes or threatens to cause water pollution.

*(Water Pollution Control Board; 327 IAC 4-1-2; filed Sep 24, 1987, 3:00 p.m.: 11 IR 611; filed Mar 2, 1994, 5:00 p.m.: 17 IR 1615; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 4-1-3 Early warning system**

**Authority:** IC 13-1-3-7; IC 13-7-7-5  
**Affected:** IC 13-1-3; IC 13-7

Sec. 3. Whenever, in the determination of the commissioner, a semipublic facility or POTW has reached or is approaching ninety percent (90%) of its maximum hydraulic or organic design capacity, the commissioner shall notify the semipublic facility or POTW that it may be necessary, because of such condition, to impose a sewer connection ban if action is not taken by the semipublic facility or POTW to accommodate additional flow or loading. Such notification shall be by certified mail, return receipt requested, and shall be directed to the principal executive officer, ranking elected official, and/or the authorized agent of the semipublic facility or POTW. Failure of the commissioner to provide such notification to the semipublic facility or POTW shall not preclude the imposition of a sewer connection ban as authorized by this article. *(Water Pollution Control Board; 327 IAC 4-1-3; filed Sep 24, 1987, 3:00 p.m.: 11 IR 613; filed Mar 2, 1994, 5:00 p.m.: 17 IR 1616; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 4-1-4 Imposition of sewer connection bans**

**Authority:** IC 13-1-3-7; IC 13-7-7-5  
**Affected:** IC 13-1-3; IC 13-7

Sec. 4. (a) Whenever, in the determination of the commissioner, hydraulic or organic overloading of a

semipublic facility or POTW exists or is impending and the introduction into the semipublic facility or POTW of additional wastewater from new or existing sources is likely to result in the discharge or bypassing of insufficiently treated sewage, the commissioner may impose a ban on further sewer connections to the semipublic facility or POTW.

(b) Such sewer connection ban shall prohibit the connection or introduction of additional wastewater or sewage into the semipublic facility or POTW, except as otherwise provided under this article. *(Water Pollution Control Board; 327 IAC 4-1-4; filed Sep 24, 1987, 3:00 p.m.: 11 IR 613; filed Mar 2, 1994, 5:00 p.m.: 17 IR 1617; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 4-1-5 Notification of imposition of sewer connection ban**

**Authority:** IC 13-1-3-7; IC 13-7-7-5  
**Affected:** IC 13-1-3; IC 13-7

Sec. 5. (a) Whenever the commissioner has determined to impose a ban on further sewer connections to a POTW, the commissioner shall notify the principal executive officer, the ranking elected official, or the authorized agent or representative of the POTW of such determination by certified mail, return receipt requested.

(b) Whenever the commissioner has determined to impose a ban on further sewer connections to a semipublic facility, the commissioner shall notify the owner, chief executive officer, or authorized agent or representative of the semipublic facility of such determination by certified mail, return receipt requested. *(Water Pollution Control Board; 327 IAC 4-1-5; filed Sep 24, 1987, 3:00 p.m.: 11 IR 613; filed Mar 2, 1994, 5:00 p.m.: 17 IR 1617; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 4-1-6 Grounds and procedures for obtaining waivers of sewer connection bans**

**Authority:** IC 13-1-3-7; IC 13-7-7-5  
**Affected:** IC 13-1-3; IC 13-7

Sec. 6. (a) Requests for connections from new or existing sources to a semipublic facility or POTW where a sewer connection ban is in effect may be approved if it is determined by the commissioner that any of the following conditions exist:

(1) The connection will eliminate an existing health hazard and the resulting public health benefit is considered to outweigh the adverse impact of any reduction in the effluent quality from the semipublic facility or

POTW.

(2) A semipublic facility or POTW expansion project is under construction and will be completed in such time as to accommodate such new connections.

(3) An equivalent amount of infiltration or wastewater is removed from the sewage system, thus assuring that the additional wastewater will receive treatment.

(4) The commissioner is assured that additional water pollution treatment/control facilities (such as chemical feed equipment) will be provided such that the effluent from the semipublic facility or POTW will not deteriorate beyond its present quality.

(5) Other assurances are provided that the additional sewage to be discharged into the semipublic facility or POTW shall receive adequate treatment.

(b) Requests by POTWs for the waiver of a sewer connection ban for new or existing sources should be submitted by the principal executive officer or ranking elected official of the POTW to the commissioner. Requests by semipublic facilities for the waiver of a sewer connection ban for new or existing sources should be submitted by the owner, chief executive officer, or authorized agent or representative of the semipublic facility to the commissioner. The request for waiver of a sewer ban should contain, at a minimum, the projected flow and pollutant loadings from the proposed connection(s) and the projected impact upon the semipublic facility or POTW. (*Water Pollution Control Board; 327 IAC 4-1-6; filed Sep 24, 1987, 3:00 p.m.: 11 IR 613; filed Mar 2, 1994, 5:00 p.m.: 17 IR 1617; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 4-1-7 Grounds for termination of sewer connection ban**

**Authority:** IC 13-1-3-7; IC 13-7-7-5

**Affected:** IC 13-1-3; IC 13-7

Sec. 7. A sewer connection ban may be terminated by the commissioner when any of the following exist:

(1) a demonstrated sewage treatment facility improvement to meet applicable NPDES permit limitations has been completed, or

(2) it is demonstrated to the satisfaction of the commissioner that an existing hydraulic/organic overloaded condition has been or will be discontinued for a continuous period of twelve (12) months from the date additional connections will be made.

(*Water Pollution Control Board; 327 IAC 4-1-7; filed Sep 24, 1987, 3:00 pm: 11 IR 613; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 4-1-8 Exclusions from sewer connection bans**

**Authority:** IC 13-1-3-7; IC 13-7-7-5

**Affected:** IC 13-1-3; IC 13-7

Sec. 8. The following shall be excluded from the requirements of sewer connection bans:

(1) Single-family dwellings erected on vacant lots served by an existing sanitary sewer.

(2) Projects that possess a valid construction permit issued under 327 IAC 3-2 prior to the imposition of a sewer connection ban.

(*Water Pollution Control Board; 327 IAC 4-1-8; filed Sep 24, 1987, 3:00 pm: 11 IR 613; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 4-1-9 Appeals**

**Authority:** IC 13-1-3-7; IC 13-7-7-5

**Affected:** IC 4-21.5; IC 13-1-3; IC 13-7

Sec. 9. A semipublic facility or POTW aggrieved by the imposition of a ban, denial of a sewer ban waiver, or denial of a request to terminate the ban may appeal to the board for a hearing. All hearings under this section shall be held in accordance with IC 4-21.5. (*Water Pollution Control Board; 327 IAC 4-1-9; filed Sep 24, 1987, 3:00 p.m.: 11 IR 614; filed Mar 2, 1994, 5:00 p.m.: 17 IR 1617; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 4-1-10 Enforcement**

**Authority:** IC 13-1-3-7; IC 13-7-7-5

**Affected:** IC 13-1-3; IC 13-7-11; IC 13-7-13

Sec. 10. This article may be enforced through administrative or judicial proceedings under IC 13-7-11 and the penalty provisions of IC 13-7-13. (*Water Pollution Control Board; 327 IAC 4-1-10; filed Sep 24, 1987, 3:00 p.m.: 11 IR 614; filed Mar 2, 1994, 5:00 p.m.: 17 IR 1617; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 4-1-11 Access to information**

**Authority:** IC 13-7-7-5; IC 13-7-16-7

**Affected:** IC 13-1-3; IC 13-7

Sec. 11. (a) Whenever necessary to carry out the provisions of this article, any person who is or may be reasonably expected to be subject to such regulatory provisions shall:

(1) establish and maintain records;

(2) make reports;

(3) install, use, and maintain monitoring equipment or methods;

(4) sample effluents, or other material; and

(5) provide other information;

at the locations, at the times, and in the manner the commissioner may reasonably prescribe.

(b) The commissioner, or the commissioner's authorized representative, upon presentation of proper credentials:

(1) shall have a right of entry to, upon, or through any premises, public or private, in which records, reports, monitoring equipment or methods, samples, or other information required to be maintained or provided under subsection (a) are located; and

(2) may, at reasonable times, have access to and:

(A) copy any records;

(B) inspect any equipment or method; or

(C) sample any effluent or other material required under subsection (a).

*(Water Pollution Control Board; 327 IAC 4-1-11; filed Sep 24, 1987, 3:00 p.m.: 11 IR 614; filed Mar 2, 1994, 5:00 p.m.: 17 IR 1618; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

## ARTICLE 5. INDUSTRIAL WASTEWATER PRETREATMENT PROGRAMS AND NPDES

Rule 1. NPDES and Pretreatment Programs; General Provisions

Rule 1.5. Definitions

Rule 2. Basic NPDES Requirements

Rule 2.1. Combined Sewer Overflow Public Notification

Rule 3. Procedures for the Issuance of NPDES Permits

Rule 4. Special NPDES Programs

Rule 5. NPDES Criteria and Standards for Technology-Based Treatment Requirements

Rule 6. Criteria and Standards for Determining Fundamentally Different Factors

Rule 7. Alternative Thermal Effluent Limitations; Determination

Rule 8. Extension of Compliance Dates Under Section 301(i) of the CWA *(Repealed)*

Rule 8.5. Criteria for Extending Compliance Dates under Section 301(k) of the CWA *(Repealed)*

Rule 9. Best Management Practices; Establishment

Rule 10. Additional Treatment Requirements

Rule 11. Pretreatment Program; General Provisions *(Repealed)*

Rule 12. Applicable Pretreatment Standards and Other Pretreatment Requirements *(Repealed)*

Rule 13. POTW Pretreatment Programs *(Repealed)*

Rule 14. Revision of Categorical Pretreatment Standards to Reflect Consistent Removal of Pollutants by a POTW *(Repealed)*

Rule 15. Industrial Waste Pretreatment Permit Program *(Repealed)*

Rule 16. General Provisions

Rule 17. Definitions

Rule 18. Applicable Pretreatment Standards and Other Pretreatment Requirements

Rule 19. POTW Pretreatment Programs

Rule 20. Removal Credits

Rule 21. Industrial Wastewater Pretreatment Permit Program  
Rule 22. Classification of Wastewater Treatment Plants; Examination and Certification of Operators

### Rule 1. NPDES and Pretreatment Programs;

#### General Provisions

327 IAC 5-1-1 Purpose

327 IAC 5-1-1.5 Prohibitions

327 IAC 5-1-2 Definitions *(Repealed)*

327 IAC 5-1-3 Department requests for data

### 327 IAC 5-1-1 Purpose

Authority: IC 13-14-8; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-18-3

Sec. 1. This article prescribes policies, procedures, and technical criteria for the following programs of the water pollution control board:

(1) The issuance of discharge permits under the National Pollutant Discharge Elimination System (NPDES).

(2) The implementation of a program for the pretreatment of industrial wastewater to be discharged into municipal sewage treatment facilities.

The provisions of this rule are generally applicable to all other rules of this article. *(Water Pollution Control Board; 327 IAC 5-1-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 614; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1734; filed Nov 13, 1995, 5:00 p.m.: 19 IR 660; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### 327 IAC 5-1-1.5 Prohibitions

Authority: IC 13-11-2-99; IC 13-13-5-1; IC 13-22-2-3

Affected: IC 13-18-3

Sec. 1.5. The point source discharge of sewage treated or untreated, from a dwelling or its associated residential sewage disposal system, to the waters of the state is prohibited. *(Water Pollution Control Board; 327 IAC 5-1-1.5; filed Nov 13, 1995, 5:00 p.m.: 19 IR 660; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### 327 IAC 5-1-2 Definitions *(Repealed)*

Sec. 2. *(Repealed by Water Pollution Control Board; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1479)*

### 327 IAC 5-1-3 Department requests for data

Authority: IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

Affected: IC 13-1-3; IC 13-7

Sec. 3. (a) Whenever necessary to carry out the provisions of this article, any person who is or may be reasonably expected to be subject to such regulatory provisions

shall:

- (1) establish and maintain such records;
- (2) make such reports;
- (3) install, use, and maintain such monitoring equipment or methods (including, where appropriate, biomonitoring methods);
- (4) sample such effluents, internal wastestreams, where appropriate, or other material; and
- (5) provide such other data, including, but not limited to:

- (A) raw materials;
- (B) catalysts;
- (C) intermediate products;
- (D) by-products;
- (E) production rates; and
- (F) related process information;

at such locations, at such times, and in such a manner as the commissioner may reasonably prescribe.

(b) Sampling of internal wastestreams under subsection (a)(4) and the provision of data under subsection (a)(5) shall not be required by the commissioner unless:

(1) such data is reasonably expected to facilitate the identification or quantification of pollutants which may be released to the environment from facilities owned or operated by the person to whom the request is made; and

(2) the identification or quantification of such pollutants could not reasonably be made by the commissioner in the absence of the requested information.

(c) The commissioner, upon presentation of proper credentials:

(1) shall have a right of entry to, upon, or through any premises, public or private, in which records, reports, monitoring or treatment equipment or methods, samples, or other data required to be maintained or provided under subsection (a) are located; and

(2) may at reasonable times have access to and copy any records, inspect any monitoring or treatment equipment or method, or sample any effluent, internal wastestream, or other material required under subsection (a).

(d) For purposes of subsection (c), the commissioner may authorize, as his representative, any employee of the Indiana department of environmental management or any person under contract with the Indiana department of environmental management whereby such person has agreed, in writing under oath, not to disclose any information collected in performance of his contact to any person except as specified by the contract. (*Water Pollution Control Board; 327 IAC 5-1-3; filed Sep 24, 1987, 3:00 p.m.: 11 IR 617; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1738; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### Rule 1.5. Definitions

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- 327 IAC 5-1.5-2 "Administrator" defined
- 327 IAC 5-1.5-3 "Ambient intake concentration" defined
- 327 IAC 5-1.5-4 "Ambient upstream concentration" defined
- 327 IAC 5-1.5-5 "Applicable effluent standards and limitations" defined
- 327 IAC 5-1.5-6 "Best management practices" defined
- 327 IAC 5-1.5-7 "Combined sewer" defined
- 327 IAC 5-1.5-8 "Controlled discharge" defined
- 327 IAC 5-1.5-9 "Conventional pollutants" defined
- 327 IAC 5-1.5-10 "Discharge" or "direct discharge" defined
- 327 IAC 5-1.5-11 "Discharge of a pollutant" defined
- 327 IAC 5-1.5-12 "Draft permit" defined
- 327 IAC 5-1.5-13 "Effluent limitation" defined
- 327 IAC 5-1.5-14 "Effluent limitations guideline" defined
- 327 IAC 5-1.5-15 "Effluent standard or prohibition" defined
- 327 IAC 5-1.5-16 "Environmental Management Act" or "EMA" defined
- 327 IAC 5-1.5-17 "Environmental Protection Agency" or "EPA" defined
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- 327 IAC 5-1.5-19 "Existing Great Lakes discharger" defined
- 327 IAC 5-1.5-20 "General permit" defined
- 327 IAC 5-1.5-21 "General permit boundary" or "GPB" defined
- 327 IAC 5-1.5-22 "Hazardous substance" defined
- 327 IAC 5-1.5-23 "Hazardous waste" defined
- 327 IAC 5-1.5-24 "Indigenous" defined
- 327 IAC 5-1.5-25 "Indirect discharger" defined
- 327 IAC 5-1.5-26 "Limit of detection" or "LOD" defined
- 327 IAC 5-1.5-27 "Limit of quantitation" or "LOQ" defined
- 327 IAC 5-1.5-28 "Load allocation" or "LA" defined
- 327 IAC 5-1.5-29 "Loading capacity" defined
- 327 IAC 5-1.5-30 "Major discharger" defined
- 327 IAC 5-1.5-31 "Method detection level" or "MDL" defined
- 327 IAC 5-1.5-32 "Minimum level" or "ML" defined
- 327 IAC 5-1.5-33 "Minor discharger" defined
- 327 IAC 5-1.5-34 "National Pollutant Discharge Elimination System" or "NPDES" defined
- 327 IAC 5-1.5-35 "New discharger" defined
- 327 IAC 5-1.5-36 "New Great Lakes discharger" defined
- 327 IAC 5-1.5-37 "New source" defined
- 327 IAC 5-1.5-38 "Outfall" defined
- 327 IAC 5-1.5-39 "Permit" defined
- 327 IAC 5-1.5-40 "Point source" defined
- 327 IAC 5-1.5-41 "Pollutant" defined
- 327 IAC 5-1.5-42 "Population equivalent" or "PE" defined
- 327 IAC 5-1.5-43 "POTW treatment plant" defined
- 327 IAC 5-1.5-44 "Preliminary wasteload allocations" or "preliminary WLA" defined
- 327 IAC 5-1.5-45 "Primary industrial category" defined
- 327 IAC 5-1.5-46 "Process wastewater" defined
- 327 IAC 5-1.5-47 "Proposed permit" defined
- 327 IAC 5-1.5-48 "Publicly owned treatment works" or "POTW" defined
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- 327 IAC 5-1.5-50 “Recommencing discharger” defined  
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 327 IAC 5-1.5-66 “Total maximum daily load” or “TMDL” defined  
 327 IAC 5-1.5-67 “Toxic pollutant” defined  
 327 IAC 5-1.5-68 “UIC” defined  
 327 IAC 5-1.5-69 “Wasteload allocation” or “WLA” defined  
 327 IAC 5-1.5-70 “Wastewater” defined  
 327 IAC 5-1.5-71 “Water pollution treatment or control facility” defined  
 327 IAC 5-1.5-72 “Waters of the state of Indiana” or “waters of the state” defined

### 327 IAC 5-1.5-1 Definitions

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18-4

Sec. 1. In addition to the definitions contained in IC 13-12-3-1, IC 13-11-2, 327 IAC 1, 327 IAC 2-1, and 327 IAC 2-1.5, the definitions in this rule apply throughout this article. (*Water Pollution Control Board; 327 IAC 5-1.5-1; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1412; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 5-1.5-2 “Administrator” defined

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 2. “Administrator” means the administrator of the United States Environmental Protection Agency or an authorized representative. (*Water Pollution Control Board; 327 IAC 5-1.5-2; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1412; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 5-1.5-3 “Ambient intake concentration” defined

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 3. “Ambient intake concentration” means the concentration of a substance occurring in the intake, which is present, or likely to be present, in the absence of upstream point source contributions. (*Water Pollution Control Board; 327 IAC 5-1.5-3; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1413; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 5-1.5-4 “Ambient upstream concentration” defined

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 4. “Ambient upstream concentration” means the concentration of a substance occurring immediately upstream of the point of discharge, which is present, or likely to be present, in the absence of upstream point source contributions. (*Water Pollution Control Board; 327 IAC 5-1.5-4; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1413; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 5-1.5-5 “Applicable effluent standards and limitations” defined

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 5. “Applicable effluent standards and limitations” means all federal, state, and interstate standards and limitations to which a discharge is subjected under the Clean Water Act and Indiana law. (*Water Pollution Control Board; 327 IAC 5-1.5-5; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1413; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 5-1.5-6 “Best management practices” defined

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 6. (a) “Best management practices” or “BMPs” means the following measures to prevent or reduce the pollution of waters of the state:

- (1) Schedules of activities.
  - (2) Prohibitions of practice.
  - (3) Treatment requirements.
  - (4) Operation and maintenance procedures.
  - (5) Use of containment facilities.
  - (6) Other management practices.
- (b) BMPs may be employed, for example, to control:
- (1) plant site run-off;

- (2) spillage or leaks;
- (3) sludge or waste disposal; or
- (4) drainage from raw materials storage resulting from:
  - (A) manufacturing;
  - (B) commercial;
  - (C) mining; or
  - (D) silvicultural;
 activities.

*(Water Pollution Control Board; 327 IAC 5-1.5-6; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1413; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 5-1.5-7 “Combined sewer” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 7. “Combined sewer” means a sewer designed and employed to receive both:

- (1) water-carried or liquid wastes; and
- (2) storm or surface water.

*(Water Pollution Control Board; 327 IAC 5-1.5-7; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1413; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 5-1.5-8 “Controlled discharge” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 8. “Controlled discharge” means a discharge of wastewater from a wastewater treatment plant which is designed and operated to control the volume of discharge, either by manual adjustment or by an automated control mechanism, such that the discharge rate does not exceed a prescribed fraction of the stream flow rate at any given time. *(Water Pollution Control Board; 327 IAC 5-1.5-8; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1413; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 5-1.5-9 “Conventional pollutants” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 9. “Conventional pollutants” includes the following:

- (1) Biochemical oxygen demanding pollutants.
- (2) Suspended solids.
- (3) Fecal coliform.
- (4) pH.
- (5) Oil and grease.

*(Water Pollution Control Board; 327 IAC 5-1.5-9; filed*

*Jan 14, 1997, 12:00 p.m.: 20 IR 1413; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 5-1.5-10 “Discharge” or “direct discharge” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 10. “Discharge” or “direct discharge”, when used without qualification, means a discharge of a pollutant. *(Water Pollution Control Board; 327 IAC 5-1.5-10; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1413; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 5-1.5-11 “Discharge of a pollutant” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 11. “Discharge of a pollutant” means any addition of any pollutant, or combination of pollutants, into any waters of the state from a point source in Indiana. The term includes, without limitation, additions of pollutants into waters of the state from the following:

- (1) Surface run-off collected or channeled by man.
- (2) Discharges through pipes, sewers, or other conveyances that do not lead to treatment works.

*(Water Pollution Control Board; 327 IAC 5-1.5-11; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1414; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 5-1.5-12 “Draft permit” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 12. “Draft permit” means a document prepared prior to the public comment period by the commissioner indicating the commissioner's tentative decision to:

- (1) issue or deny;
- (2) modify;
- (3) revoke and reissue;
- (4) terminate; or
- (5) reissue;

a permit. *(Water Pollution Control Board; 327 IAC 5-1.5-12; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1414; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 5-1.5-13 “Effluent limitation” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 13. “Effluent limitation” means any restriction

established by the commissioner on quantities, discharge rates, and concentrations of pollutants that are discharged, or will be discharged, from point sources into waters of the state. (*Water Pollution Control Board; 327 IAC 5-1.5-13; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1414; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-14 “Effluent limitations guideline” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 14. “Effluent limitations guideline” means a regulation adopted by the administrator of the EPA, under Section 304(b) of the CWA, for use in establishing effluent limitations for specific point sources within a particular industrial class or category. (*Water Pollution Control Board; 327 IAC 5-1.5-14; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1414; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-15 “Effluent standard or prohibition” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 15. “Effluent standard or prohibition” means a regulation adopted by the administrator of the EPA, under Section 307(a) of the Clean Water Act, which restricts or prohibits the discharge of a toxic pollutant, based on the toxic qualities of that pollutant, and does not mean an effluent limitations guideline. (*Water Pollution Control Board; 327 IAC 5-1.5-15; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1414; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-16 “Environmental Management Act” or “EMA” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-13; IC 13-18-4

Sec. 16. “Environmental Management Act” or “EMA” means IC 13-13. (*Water Pollution Control Board; 327 IAC 5-1.5-16; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1414; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-17 “Environmental Protection Agency” or “EPA” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 17. “Environmental Protection Agency” or “EPA” means the United States Environmental Protection Agency. (*Water Pollution Control Board; 327 IAC 5-1.5-17; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1414; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-18 “EPA water management division director” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 18. “EPA water management division director” means the director of the water management division of the regional office of the EPA having jurisdiction over Indiana or this person's delegated representative. (*Water Pollution Control Board; 327 IAC 5-1.5-18; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1414; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-19 “Existing Great Lakes discharger” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 19. “Existing Great Lakes discharger” means any building, structure, facility, or installation from which there is or may be a discharge of a pollutant to the Great Lakes system that is not a new Great Lakes discharger. (*Water Pollution Control Board; 327 IAC 5-1.5-19; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1414; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-20 “General permit” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 20. “General permit” means an authorization to discharge under the NPDES rules, that is applicable to all owners and operators of point sources of a particular category located within a designated general permit boundary (GPB), other than owners and operators of such sources to whom individual NPDES permits have been issued. (*Water Pollution Control Board; 327 IAC 5-1.5-20; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1415; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-21 “General permit boundary” or “GPB” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 21. “General permit boundary” or “GPB” means the designated geographic area within which a particular general permit is applicable. (*Water Pollution Control Board; 327 IAC 5-1.5-21; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1415; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-22 “Hazardous substance” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 22. “Hazardous substance” means, for purposes of NPDES, any substance designated under 40 CFR 116 pursuant to Section 311 of the Clean Water Act. (*Water Pollution Control Board; 327 IAC 5-1.5-22; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1415; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-23 “Hazardous waste” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2-99; IC 13-18-4; IC 13-22-2-3

Sec. 23. “Hazardous waste” means a waste having the characteristics described in IC 13-11-2-99(a) and specifically a waste listed under IC 13-22-2-3. (*Water Pollution Control Board; 327 IAC 5-1.5-23; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1415; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-24 “Indigenous” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 24. “Indigenous” means, generally, an organism native to and growing and reproducing in a particular region. The term also includes historically nonnative species introduced by the Indiana department of natural resources as part of a program of wildlife management whether such species reproduce or not. (*Water Pollution Control Board; 327 IAC 5-1.5-24; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1415; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-25 “Indirect discharger” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 25. “Indirect discharger” means a nondomestic discharger introducing pollutants into a POTW. (*Water Pollution Control Board; 327 IAC 5-1.5-25; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1415; readopted filed Jan 10,*

*2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-26 “Limit of detection” or “LOD” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 26. “Limit of detection” or “LOD” means the minimum concentration of a substance that can be measured and reported with ninety-nine percent (99%) confidence that the analyte concentration is greater than zero (0) for a particular analytical method and sample matrix. (*Water Pollution Control Board; 327 IAC 5-1.5-26; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1415; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-27 “Limit of quantitation” or “LOQ” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 27. “Limit of quantitation” or “LOQ” means a measurement of the concentration of a contaminant obtained by using a specified laboratory procedure calibrated at a specified concentration above the method detection level. It is considered the lowest concentration at which a particular contaminant can be quantitatively measured using a specified laboratory procedure for monitoring of the contaminant. This term is also sometimes called limit of quantification or quantification level. (*Water Pollution Control Board; 327 IAC 5-1.5-27; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1415; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-28 “Load allocation” or “LA” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 28. “Load allocation” or “LA” means the portion of a receiving water's loading capacity that is attributed either to one (1) of its existing or future nonpoint sources of pollution or to natural background sources. Load allocations are best estimates of the loading, which may range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading. Wherever possible, natural and nonpoint source loads should be distinguished. Nonpoint sources include any discharge of a pollutant that is not a point source, such as the following:

- (1) In-place contaminants.
- (2) Direct wet and dry deposition.
- (3) Ground water inflow.
- (4) Overland run-off.

(*Water Pollution Control Board; 327 IAC 5-1.5-28; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1415; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-1.5-29 “Loading capacity” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 29. “Loading capacity” means the greatest amount of loading that a water can receive without violating water quality criteria. The loading capacity shall be determined in accordance with the procedure contained in 327 IAC 5-2-11.4(a)(12). (*Water Pollution Control Board; 327 IAC 5-1.5-29; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1416; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-1.5-30 “Major discharger” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 30. “Major discharger” means any point source discharger designated as such annually by agreement between the commissioner and the U.S. EPA. Classification of a discharger as major generally involves consideration of factors relating to the significance of the discharge's impact on the environment, such as:

- (1) nature and quantity of pollutants discharged;
- (2) character and assimilative capacity of the receiving waters;
- (3) presence of toxic pollutants in the discharge; and
- (4) compliance history of the discharger.

(*Water Pollution Control Board; 327 IAC 5-1.5-30; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1416; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-1.5-31 “Method detection level” or “MDL” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 31. “Method detection level” or “MDL” means the minimum concentration of an analyte (substance) that can be measured and reported with a ninety-nine percent (99%) confidence that the analyte concentration is greater than zero (0) as determined by the procedure set forth in 40 CFR 136, Appendix B. (*Water Pollution*

*Control Board; 327 IAC 5-1.5-31; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1416; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-1.5-32 “Minimum level” or “ML” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 32. “Minimum level” or “ML” means the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes, and processing steps have been followed. (*Water Pollution Control Board; 327 IAC 5-1.5-32; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1416; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-1.5-33 “Minor discharger” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 33. “Minor discharger” means all dischargers not designated as major dischargers. (*Water Pollution Control Board; 327 IAC 5-1.5-33; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1416; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-1.5-34 “National Pollutant Discharge Elimination System” or “NPDES” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 34. “National Pollutant Discharge Elimination System” or “NPDES” means the national program for:

- (1) issuing;
- (2) modifying;
- (3) revoking and reissuing;
- (4) terminating;
- (5) denying;
- (6) monitoring; and
- (7) enforcing;

permits for the discharge of pollutants from point sources and imposing and enforcing pretreatment requirements by the EPA or an authorized state under Sections 307, 318, 402, and 405 of the Clean Water Act. (*Water Pollution Control Board; 327 IAC 5-1.5-34; filed Jan 14,*

1997, 12:00 p.m.: 20 IR 1416; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)

**327 IAC 5-1.5-35 “New discharger” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 35. (a) “New discharger” means any building, structure, facility, or installation:

- (1) from which there is or may be a discharge of pollutants;
- (2) that did not commence the discharge of pollutants at a particular site prior to August 13, 1979;
- (3) is not a new source; and
- (4) that has never received a finally effective NPDES permit for discharges at that site.

(b) The term includes an indirect discharger that commences discharging into waters of the state after August 13, 1979. It also includes any existing mobile point source that begins discharging at a site for which it does not have a permit. (*Water Pollution Control Board; 327 IAC 5-1.5-35; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1416; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-36 “New Great Lakes discharger” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 36. “New Great Lakes discharger” means any building, structure, facility, or installation from which there is or may be a discharge of a pollutant to the Great Lakes system, the construction of which commenced after March 23, 1997. (*Water Pollution Control Board; 327 IAC 5-1.5-36; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1417; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-37 “New source” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 37. “New source” means any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commences:

- (1) after promulgation of standards of performance under Section 306 of the Clean Water Act which are applicable to such source; or
- (2) after publication of proposed standards of perfor-

mance in accordance with Section 306 of the Clean Water Act that are applicable to such source if the standards subsequently are promulgated in accordance with Section 306 of the Clean Water Act.

(*Water Pollution Control Board; 327 IAC 5-1.5-37; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1417; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-38 “Outfall” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 38. “Outfall” means the point of discharge from a point source. (*Water Pollution Control Board; 327 IAC 5-1.5-38; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1417; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-39 “Permit” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 39. “Permit” means any written authorization, license, or equivalent document issued to regulate the discharge of pollutants, the construction of water pollution treatment or control facilities, or land application of sludge or waste products. (*Water Pollution Control Board; 327 IAC 5-1.5-39; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1417; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-40 “Point source” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 40. (a) “Point source” means any discernible, confined, and discrete conveyance, including, but not limited to, any of the following from which pollutants are or may be discharged:

- (1) Pipe.
- (2) Ditch.
- (3) Channel.
- (4) Tunnel.
- (5) Conduit.
- (6) Well.
- (7) Discrete fissure.
- (8) Container.
- (9) Rolling stock.
- (10) Concentrated animal feeding operation.
- (11) Landfill leachate collection system.
- (12) Vessel.
- (13) Other floating craft.

(b) The term does not include return flows from irrigated agriculture or agricultural storm run-off. See 327 IAC 5-2-4(a)(4) for other exclusions. (*Water Pollution Control Board; 327 IAC 5-1.5-40; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1417; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-1.5-41 “Pollutant” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 41. “Pollutant” means, but is not limited to:

- (1) dredged spoil;
- (2) incinerator residue;
- (3) filter backwash;
- (4) sewage;
- (5) garbage;
- (6) sewage sludge;
- (7) munitions;
- (8) chemical wastes;
- (9) solid wastes;
- (10) toxic wastes;
- (11) hazardous substances;
- (12) biological materials;
- (13) radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended; 42 U.S.C. 2011, et seq.);
- (14) heat;
- (15) wrecked or discarded equipment;
- (16) rock;
- (17) sand;
- (18) cellar dirt; and
- (19) other industrial, municipal, and agricultural waste;

discharged into water. (*Water Pollution Control Board; 327 IAC 5-1.5-41; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1417; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-1.5-42 “Population equivalent” or “PE” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 42. “Population equivalent” or “PE” means the calculated population that would contribute a particular amount of biochemical oxygen demand (BOD) per day, using the base of seventeen-hundredths (0.17) pound of five (5) day BOD per capita per day. A different conversion factor may be used in the calculation when approved by the commissioner on the basis of site-specific technical information. (*Water Pollution Control Board; 327 IAC 5-1.5-42; filed Jan 14, 1997, 12:00 p.m.: 20 IR*

*1418; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-1.5-43 “POTW treatment plant” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 43. “POTW treatment plant” means that portion of the POTW designed to provide treatment (including recycling and reclamation) of municipal sewage and industrial waste. (*Water Pollution Control Board; 327 IAC 5-1.5-43; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1418; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-1.5-44 “Preliminary wasteload allocations” or “preliminary WLA” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 44. “Preliminary wasteload allocations” or “preliminary WLAs” means wasteload allocations developed for the purpose of determining the need for water quality-based effluent limitations under 327 IAC 5-2-11.5. (*Water Pollution Control Board; 327 IAC 5-1.5-44; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1418; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-1.5-45 “Primary industrial category” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 45. “Primary industrial category” means any industrial category listed in 327 IAC 5-2-23. (*Water Pollution Control Board; 327 IAC 5-1.5-45; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1418; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-1.5-46 “Process wastewater” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 46. “Process wastewater” means any water that, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. (*Water Pollution Control Board; 327 IAC 5-1.5-46; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1418; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-47 “Proposed permit” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 47. “Proposed permit” means an NPDES permit prepared after the close of the public comment period (and, when applicable, any public hearing and administrative appeals) that is sent to EPA for review before final issuance by the state. A proposed permit shall be distinguished from a draft permit. A denial of a request for modification, revocation and reissuance, or termination is neither a draft permit nor a proposed permit. (*Water Pollution Control Board; 327 IAC 5-1.5-47; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1418; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-48 “Publicly owned treatment works” or “POTW” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 48. “Publicly owned treatment works” or “POTW” means a treatment works as defined by Section 212(2) of the Clean Water Act owned by the state or a municipality (as defined by Section 502(4) of the Clean Water Act), except that it does not include pipes, sewers, or other conveyances not connected to a facility providing treatment. The term includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or compatible industrial wastes. It also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW treatment plant. The term also means the municipality, as defined by Section 502(4) of the Clean Water Act, that has jurisdiction over the indirect discharges to and the discharges from such a treatment works. (*Water Pollution Control Board; 327 IAC 5-1.5-48; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1418; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-49 “RCRA” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-13-5; IC 13-18-4

Sec. 49. “RCRA” means the Resource Conservation and Recovery Act as defined in IC 13-13-5. (*Water Pollution Control Board; 327 IAC 5-1.5-49; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1418; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-50 “Recommending discharger” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 50. “Recommending discharger” means a source that recommences discharge after terminating operations. (*Water Pollution Control Board; 327 IAC 5-1.5-50; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1419; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-51 “Regional administrator” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 51. “Regional administrator” means the Region 5 administrator of the EPA. (*Water Pollution Control Board; 327 IAC 5-1.5-51; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1419; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-52 “Revocation and reissuance” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 52. “Revocation and reissuance” means the revocation of an NPDES permit prior to the express expiration date thereof accompanied by the concurrent issuance of a new permit to supersede the revoked permit. (*Water Pollution Control Board; 327 IAC 5-1.5-52; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1419; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-53 “Sanitary sewer” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 53. “Sanitary sewer” means a sewer, to which storm, surface, and ground waters are not intentionally allowed to enter, that conveys liquid and water-carried wastes from:

- (1) residences;
- (2) commercial buildings;
- (3) industrial plants; and
- (4) institutions.

(*Water Pollution Control Board; 327 IAC 5-1.5-53; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1419; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-54 “Sanitary wastewater” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 54. “Sanitary wastewater” (commonly called sewage) means the liquid and water-carried waste from residences, commercial buildings, industrial plants, institutions, and other places of human occupancy that is transported by sewers and is primarily composed of human and household waste. Sanitary wastewater, as received by a POTW, may contain a component of industrial waste. (*Water Pollution Control Board; 327 IAC 5-1.5-54; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1419; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-55 “Schedule of compliance” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 55. “Schedule of compliance” means a schedule of remedial measures, including an enforceable sequence of actions or operations, including construction, leading to compliance with an effluent limitation, other limitation, prohibition, standard, or another permit condition. (*Water Pollution Control Board; 327 IAC 5-1.5-55; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1419; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-56 “SDWA” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 56. “SDWA” means the Safe Drinking Water Act as defined in IC 13-13-5-1. (*Water Pollution Control Board; 327 IAC 5-1.5-56; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1419; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-57 “Secondary industrial category” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 57. “Secondary industrial category” means any industrial category that is not a primary industrial category. (*Water Pollution Control Board; 327 IAC 5-1.5-57; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1419; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-58 “Secretary” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 58. “Secretary” means the Secretary of the Army,

acting through the Chief of Engineers. (*Water Pollution Control Board; 327 IAC 5-1.5-58; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1419; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-59 “Semipublic facilities” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 59. “Semipublic facilities” means those persons or any entity who provide sewage disposal services for entities that are not POTWs, are not state or federally owned, or are not individual industrial sites, including, but not limited to, the following:

- (1) Trailer or mobile home parks.
- (2) Commercial or shopping centers.
- (3) Housing developments.
- (4) Truck stops.
- (5) Restaurants.
- (6) Schools.
- (7) Campgrounds.

(*Water Pollution Control Board; 327 IAC 5-1.5-59; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1419; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-60 “Sewage from vessels” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 60. “Sewage from vessels” means human body wastes and the wastes from toilets and other receptacles intended to receive or retain body wastes that are discharged from vessels and regulated under Section 312 of the Clean Water Act, except that with respect to commercial vessels on the Great Lakes, this term includes graywater. As used in this section, “graywater” means galley, bath, or shower water. (*Water Pollution Control Board; 327 IAC 5-1.5-60; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1420; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-61 “Sewer” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 61. “Sewer” means a pipe or conduit that carries wastewater or drainage water. (*Water Pollution Control Board; 327 IAC 5-1.5-61; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1420; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-62 “SIC” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 62. “SIC” means the standard industrial classification applicable to a particular industrial activity in accordance with the Standard Industrial Classification Manual published by the Office of Management and Budget of the Executive Office of the President of the United States. (*Water Pollution Control Board; 327 IAC 5-1.5-62; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1420; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-63 “Sludge” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 63. “Sludge” means any solid, semisolid, or liquid waste generated from:

- (1) municipal, industrial, commercial, mining, or agricultural operations;
- (2) water pollution treatment or control facilities;
- (3) air pollution control facilities; or
- (4) water supply treatment plants;

exclusive of the treated effluent from a water pollution treatment facility. (*Water Pollution Control Board; 327 IAC 5-1.5-63; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1420; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-64 “Storm sewer” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 64. “Storm sewer” means a sewer:

- (1) designed to transport only storm and surface water; and
- (2) does not lead to a wastewater treatment facility.

(*Water Pollution Control Board; 327 IAC 5-1.5-64; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1420; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-65 “Termination” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-15-3-2; IC 13-18-4

Sec. 65. “Termination” means the revocation of an NPDES permit prior to its express expiration date where a new permit is not proposed by the commissioner in place of the revoked permit. The term also applies to those permits continued in force after their express

expiration date under the terms of IC 13-15-3-2 that are then terminated. (*Water Pollution Control Board; 327 IAC 5-1.5-65; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1420; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-66 “Total maximum daily load” or “TMDL” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 66. “Total maximum daily load” or “TMDL” means the sum of the individual wasteload allocations for point sources and load allocations for nonpoint sources and natural background minus the sum of a specified margin of safety and any capacity reserved for growth. If a receiving water has only one (1) point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments minus the sum of a specified margin of safety and any capacity reserved for growth. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. If best management practices (BMPs) or other nonpoint source pollution controls make more stringent load allocations practicable, then wasteload allocations may be made less stringent. Thus, the TMDL process provides for nonpoint source control tradeoffs. A TMDL sets and allocates the maximum amount of a pollutant that may be introduced into a waterbody and still assure attainment and maintenance of water quality standards. (*Water Pollution Control Board; 327 IAC 5-1.5-66; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1420; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-67 “Toxic pollutant” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 67. “Toxic pollutant” means any pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act. (*Water Pollution Control Board; 327 IAC 5-1.5-67; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1421; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-68 “UIC” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 68. “UIC” means the Underground Injection

Control program under Part C of the SDWA. (*Water Pollution Control Board; 327 IAC 5-1.5-68; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1421; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-69 “Wasteload allocation” or “WLA” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 69. “Wasteload allocation” or “WLA” is the portion of a receiving water's loading capacity that is allocated to one (1) of its existing or future point sources of pollution. In the absence of a TMDL approved by EPA under 40 CFR 130.7 or an assessment and remediation plan developed and approved in accordance with 327 IAC 5-2-11.4(a), a WLA is the allocation for an individual point source, that ensures that the level of water quality to be achieved by the point source is derived from and complies with all applicable water quality standards. (*Water Pollution Control Board; 327 IAC 5-1.5-69; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1421; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-70 “Wastewater” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 70. “Wastewater” means liquid or water-carried wastes from industrial, municipal, agricultural, or other sources. (*Water Pollution Control Board; 327 IAC 5-1.5-70; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1421; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-71 “Water pollution treatment or control facility” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 71. “Water pollution treatment or control facility” means any equipment, device, unit, or structure that is used to control, prevent, pretreat, or treat any discharge or threatened discharge of pollutants into any waters of Indiana, including surface and subsurface waters and public or private sewerage systems. The term includes, but is not limited to, the following:

- (1) Treatment facilities.
- (2) Combined sewers.
- (3) Sanitary sewers.
- (4) Disposal well systems.

(5) Animal feeding operation treatment facilities.

(6) Land application treatment facilities.

(7) Cyanide isolation facilities.

(*Water Pollution Control Board; 327 IAC 5-1.5-71; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1421; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-1.5-72 “Waters of the state of Indiana” or “waters of the state” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 72. “Waters of the state of Indiana” or “waters of the state” has the meaning set forth in 327 IAC 2-1.5-2(91). (*Water Pollution Control Board; 327 IAC 5-1.5-72; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1421; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**Rule 2. Basic NPDES Requirements**

- |                  |   |
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- 327 IAC 5-2-20 Enforcement
- 327 IAC 5-2-21 Fees (*Repealed*)
- 327 IAC 5-2-22 Signatories to permit applications and reports
- 327 IAC 5-2-23 Primary industrial point source categories

### 327 IAC 5-2-1 Purpose and scope

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 1. This rule defines the general programmatic requirements of a pollutant discharge permit system to be administered by the commissioner consistent with the NPDES requirements set forth in Sections 118, 318, 402, and 405 of the Clean Water Act and federal regulations adopted pursuant thereto. (*Water Pollution Control Board; 327 IAC 5-2-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 617; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1421*)

### 327 IAC 5-2-1.5 Incorporation by reference

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 1.5. The following materials have been incorporated by reference into this article. Each of the following items, in addition to its title, will list the name and address of where it may be located for inspection and copying:

(1) Clean Water Act (CWA), 33 U.S.C. 1251 et seq., in effect on December 16, 1996, is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.

(2) All Federal Registers listed in this rule are available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, or the

Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.

(3) Code of Federal Regulations (40 CFR 100–149, 40 CFR 400–424, and 40 CFR 425–699), in effect on December 16, 1996, are available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, or the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.

(4) Standard Form A Municipal (EPA Form 7550-22), available from the U.S. Environmental Protection Agency, Office of Water Resource Center, 401 M Street, S.W., Washington, D.C. 20460, or the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.

(5) Pollution Prevention Act of 1990 (42 USCA 13101 to 42 USCA 13109), available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, or the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.

(6) “Standard Methods for the Examination of Water and Wastewater”, Joint Editorial Board, American Public Health Association, American Water Works Association, and Water Environment Federation, 18th Edition, 1992. Available from American Public Health Association, 1015 Fifteenth Street, N.W., Washington, D.C. 20005, and the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.

(*Water Pollution Control Board; 327 IAC 5-2-1.5; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1421; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378*)

### 327 IAC 5-2-2 Requirement to have a permit

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 2. Any discharge of pollutants into waters of the state as a point source discharge, except for exclusions made in 327 IAC 5-2-4, is prohibited unless in conformity with a valid NPDES permit obtained prior to the discharge. (*Water Pollution Control Board; 327 IAC 5-2-2; filed Sep 24, 1987, 3:00 pm: 11 IR 618*)

### 327 IAC 5-2-3 Permit application

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 3. (a) Any person required to have an NPDES permit, except for persons covered by general NPDES permits under 327 IAC 15, shall submit a complete application to the commissioner in accordance with this section and 327 IAC 5-3.

(b) An application for a permit shall be submitted to the commissioner by the time specified in 327 IAC 5-3-2 or, in the case of an application for a statutory modification of or variance from effluent limitations, by the time specified in 327 IAC 5-3-4.

(c) The owner of the facility or operation from which a discharge of pollutants occurs is responsible for applying for and obtaining a permit, except where the facility or operation is operated by a person other than an employee of the owner in which case it is the operator's duty to apply for and obtain a permit.

(d) All applicants for NPDES permits shall submit to the commissioner a completed application Form 1-General, as described in 45 FR 33545-56 (May 19, 1980), including any revisions made to this form by EPA through December 31, 1986. The commissioner may substitute a substantially equivalent form for submittal in place of the Form 1-General.

(e) Existing manufacturing, commercial, mining, and silvicultural dischargers applying for NPDES permits shall provide the commissioner with the additional information specified in application Form 2C NPDES as described in 45 FR 38054-71 (September 26, 1984), including any revisions made to this form by EPA through December 31, 1986, or substantially equivalent forms supplied by the commissioner.

(f) New and existing concentrated animal feeding operations and concentrated aquatic animal production facilities shall provide the commissioner with the additional information specified in application Form 2B NPDES as described in 45 FR 33557-8 (May 19, 1980), including any revisions made to this form by EPA through December 31, 1986, or substantially equivalent forms supplied by the commissioner.

(g) New and existing POTWs shall provide the additional information specified on Standard Form A-Municipal (EPA Form 7550-22) or substantially equivalent forms supplied by the commissioner. If EPA promulgates Form 2A NPDES, the commissioner may specify its use for applications by new and existing POTWs. The following POTWs shall provide the results of valid whole effluent biological toxicity testing to the commissioner:

(1) All POTWs with design influent flows equal to or

greater than one million (1,000,000) gallons per day.

(2) All POTWs with approved pretreatment programs or POTWs required to develop a pretreatment program.

(h) In addition to the POTWs listed in subsection (g), the commissioner may require other POTWs to submit the results of toxicity tests with their permit applications, based on consideration of the following factors:

(1) The variability of the pollutants or pollutant parameters in the POTW effluent (based on chemical-specific information, the type of industrial contributors).

(2) The dilution of the effluent in the receiving water (ratio of effluent flow to receiving stream flow).

(3) Existing controls on point or nonpoint sources, including total maximum daily load calculations for the waterbody segment and the relative contribution of the POTW.

(4) Receiving stream characteristics, including possible or known water quality impairment, and whether the POTW discharges to one (1) of the Great Lakes, or a water designated as an outstanding natural resource.

(5) Other considerations (including, but not limited to, the history of toxic impact and compliance problems at the POTW), which the commissioner determines could cause or contribute to adverse water quality impacts.

(i) For POTWs required under subsection (g) or (h) to conduct toxicity testing, POTWs shall use EPA's methods or other established protocols, which are scientifically defensible and sufficiently sensitive to detect aquatic toxicity. Such testing must have been conducted since the last NPDES permit reissuance or permit modification under 40 CFR 122.62(a), whichever occurred later.

(j) All POTWs with approved pretreatment programs shall provide, to the commissioner, a written technical evaluation of the need to revise local limits under 40 CFR 403.5(c)(1).

(k) Except for storm water discharges, all new sources and new dischargers engaged in manufacturing, commercial, mining, and silvicultural activities shall provide the additional information specified in application Form 2D NPDES as described in 51 FR 26999-27014 (July 28, 1986) or substantially equivalent forms supplied by the commissioner.

(l) Except for storm water discharges, all manufacturing, commercial, mining, and silvicultural dischargers applying for NPDES permits which discharge only nonprocess wastewater not regulated by an effluent limitations guideline or new source performance standard shall provide the commissioner with the additional information specified in application Form 2E NPDES as described in 51 FR 26994-98 (July 28, 1986) or substantially equivalent forms supplied by the commissioner.

(m) Point source discharges of storm water associated with industrial activity as defined in 40 CFR 122.26(b)(14) shall provide additional information specified in application Form 2F.

(n) Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under this section for a period of at least three (3) years from the date the application is signed.

(o) In the case of an application for permit reissuance by a manufacturing, commercial, mining, or silvicultural discharger who has previously submitted an application in accordance with subsection (e) or (k), the permittee may request a waiver of the submission of analytical data for toxic pollutants otherwise required as part of the application if:

- (1) analyses reported in the previous application(s) of at least two (2) samples of the effluent did not detect the presence of the toxic pollutants; and
- (2) the permittee certifies that, to the best of his knowledge, no change in his operation has occurred since the previous application(s) that would give reason to believe the previous results would no longer be applicable.

The commissioner may grant or deny, in the commissioner's discretion, a request for a waiver under this subsection.

(p) For discharges to waters within the Great Lakes system, in addition to the other requirements of this section, applicants requesting a permit renewal shall submit valid, representative receiving waterbody monitoring data for every metal monitored or limited in the applicant's existing permit. If the existing permit contains monitoring for cadmium, chromium (III), copper, lead, nickel, or zinc, the applicant shall also submit receiving waterbody monitoring data for hardness. The commissioner may require waterbody monitoring for additional substances if the data are necessary to process the permit application. If valid, representative, monitoring data in the waterbody for these parameters are already available, the applicant may request that this existing data substitute for the monitoring required under this subsection. The commissioner may require the submission of this additional receiving waterbody monitoring data for applicants requesting a new, renewal of, or modification of an NPDES permit if these additional data are necessary to draft an NPDES permit. (*Water Pollution Control Board; 327 IAC 5-2-3; filed Sep 24, 1987, 3:00 p.m.: 11 IR 618; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1738; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1422; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378*)

### 327 IAC 5-2-4 Exclusions

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7; IC 13-8

Sec. 4. The following discharges do not require an NPDES permit:

- (1) Any discharge of sewage from vessels, effluent from properly functioning marine engines, laundry, shower, and galley sink wastes, or any other discharge incidental to the normal operation of a vessel. This exclusion does not apply to rubbish, trash, garbage, or other such materials discharged overboard; nor to other discharges when the vessel is operating in a capacity other than as a means of transportation such as when a vessel is being used as an energy or mining facility, a storage facility, or a seafood processing facility, or is secured to the bed of the waters of the state for the purpose of mineral or oil exploration or development.
- (2) Discharges of dredged or fill material into waters of the state and regulated under section 404 of the CWA, except where the commissioner determines, on a case-by-case basis that such a discharge threatens to violate state water quality standards concerning toxic pollutants.
- (3) The introduction of sewage, industrial wastes, or other pollutants into publicly owned treatment works by indirect dischargers. However, all applicable pretreatment standards promulgated under section 307(b) and 307(c) of the CWA must also be complied with, and may be included in the permit to the publicly owned treatment works. This exclusion does not apply to discharges through pipes, sewers, or other conveyances owned by a public entity not leading to treatment works.
- (4) Any introduction of pollutants from nonpoint source agricultural and silvicultural activities, including runoff from orchards, cultivated crops, pastures, range lands, and forest lands, except that this exclusion shall not apply to discharges from concentrated animal feeding operations as defined in 327 IAC 5-4-3 or from silvicultural point sources as defined in 327 IAC 5-4-7.
- (5) Any discharge in compliance with the instructions of an on-scene coordinator pursuant to 40 CFR 300 or 33 CFR 153.10(e) or of a state employee acting in a similar capacity.
- (6) Discharges into a privately owned treatment works, except as the commissioner may otherwise require under section 10(e) of this rule.
- (7) Any discharge by underground injection of salt or sulfur-bearing water or waste liquids associated with the recovery of oil and natural gas, if the discharge is pursuant to a valid permit issued by the natural resources commission under IC 13-8.

(8) Any discharge consisting entirely of return flows from irrigated agriculture.

(9) Deep injection wells, except in accordance with 327 IAC 5-4-2.

*(Water Pollution Control Board; 327 IAC 5-2-4; filed Sep 24, 1987, 3:00 p.m.: 11 IR 619; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1740)*

### **327 IAC 5-2-5 Effect of permit issuance**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 5. (a) Compliance with a permit during its term constitutes compliance with all applicable standards and limitations of the CWA and state law, except for any standard or prohibition imposed under section 307 of the CWA for a toxic pollutant injurious to human health.

(b) The issuance of a permit does not:

(1) convey any property rights of any sort, or any exclusive privileges;

(2) authorize any injury to persons or private property or invasion of other private rights, or any infringement of federal, state, or local laws or regulations; or

(3) preempt any duty to obtain state or local assent required by law for the discharge or for construction or operation of the facility from which the discharge is made.

*(Water Pollution Control Board; 327 IAC 5-2-5; filed Sep 24, 1987, 3:00 pm: 11 IR 619)*

### **327 IAC 5-2-6 Duration of permits and transferability of permits**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1; IC 13-7-10-2

**Affected:** IC 13-1-3; IC 13-7

Sec. 6. (a) A permit shall be issued for a fixed term not to exceed five (5) years. Permits of less than five (5) years duration may be issued in appropriate circumstances at the discretion of the commissioner. A permit may be modified, revoked and reissued, or terminated prior to the expiration of the term for cause, as specified in section 16 of this rule, or in accordance with conditions set forth in the permit (as in a reopening clause). In no event may the term of a permit be extended beyond five (5) years from its original effective date by modification, extension, or other means, except as provided in subsection (b).

(b) The terms and conditions of an expired permit are automatically extended in full force and effect until the effective date of a new permit, if:

(1) the permittee has submitted a timely and sufficient application for a new permit under section 3 of this rule and 327 IAC 5-3-2; and

(2) the commissioner, through no fault of the permittee, does not issue a new permit prior to the expiration date of the previous permit.

(c) Except as provided in this subsection, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued under section 16(c)(1) or 16(e)(4) of this rule, to identify the new permittee and incorporate such other requirements as may be necessary under the CWA. A permit may be transferred to another person by a permittee, without modification or revocation and reissuance being required, if the following occurs:

(1) The current permittee notifies the commissioner at least thirty (30) days in advance of the proposed transfer date in subdivision (2).

(2) A written agreement containing a specific date for transfer of permit responsibility and coverage between the current permittee and the transferee (including acknowledgement that the existing permittee is liable for violations up to that date, and that the transferee is liable for violations from that date on) is submitted to the commissioner.

(3) The transferee certifies in writing to the commissioner intent to operate the facility without making such material and substantial alterations or additions to the facility as would significantly change the nature or quantities of pollutants discharged and thus constitute cause for permit modification under section 16(d) of this rule. However, the commissioner may allow a temporary transfer of the permit without permit modification for good cause, e.g., to enable the transferee to purge and empty the facility's treatment system prior to making alterations, despite the transferee's intent to make such material and substantial alterations or additions to the facility.

(4) The commissioner, within thirty (30) days, does not notify the current permittee and the transferee of the intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

*(Water Pollution Control Board; 327 IAC 5-2-6; filed Sep 24, 1987, 3:00 p.m.: 11 IR 619; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1740)*

### **327 IAC 5-2-7 Prohibitions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 7. No permit shall be issued in the following circumstances:

(a) Where the terms or conditions of the permit do not comply with the applicable guidelines and requirements of the CWA or effective regulations promulgated under

the CWA or this article (327 IAC 5).

(b) Where the regional administrator has objected to issuance of the proposed permit under section 402(d) of the CWA.

(c) Where, in the judgment of the secretary of the Army, anchorage and navigation in or on any of the waters of the United States would be substantially impaired by the discharge.

(d) For the discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste.

(e) For any discharge from a point source substantially inconsistent with a plan or plan amendment approved under section 208(b) of the CWA.

(f) To a facility which is a new source or a new discharger, if the discharge from the construction or operation of the facility will cause or contribute to the violation of water quality standards in the receiving waters, unless:

(1) The commissioner has conducted a pollutant load allocation analysis for the pertinent segment of the receiving stream which will result in compliance with applicable water quality standards;

(2) Sufficient pollutant load allocations remain to accommodate the proposed discharge and the permit contains effluent limitations consistent with the remaining allocations.

(3) The commissioner has imposed schedules for compliance with the pollutant load allocation upon all existing dischargers into the segment.

*(Water Pollution Control Board; 327 IAC 5-2-7; filed Sep 24, 1987, 3:00 pm: 11 IR 620)*

### **327 IAC 5-2-8 Conditions applicable to all permits**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4; IC 13-18-7-1; IC 13-30-6-2; IC 35-50-3-3

Sec. 8. The following conditions apply to all NPDES permits and shall be incorporated into the permits either expressly or by reference:

(1) The permittee must comply with all terms and conditions of the permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the EMA and is grounds for:

(A) enforcement action;

(B) permit termination, revocation and reissuance, or modification; or

(C) denial of a permit renewal application.

A permittee may claim an affirmative defense to a permit violation; however, if the circumstances of the noncompliance meet the criteria of an upset as defined in subdivision (12).

(2) If the permittee wishes to continue an activity regulated by a permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

(3) The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with the permit.

(4) The following permit actions:

(A) Permits may be modified, revoked and reissued, or terminated for cause.

(B) Any information that the permittee knows or has reason to believe would constitute cause for modification or revocation and reissuance of the permit, such as plans for physical alterations or additions to the permitted facility that:

(i) could significantly change the nature of, or increase the quantity of, pollutants discharged; or

(ii) the commissioner may request to evaluate whether such cause exists;

shall be submitted for the commissioner's evaluation at the earliest time such information becomes available.

(C) The filing by the permittee of:

(i) a request for a permit modification, revocation and reissuance, or termination; or

(ii) information specified in clause (B);

does not stay or suspend any permit term or condition.

(D) The permit may not be transferred to any person except in accordance with section 6(c) of this rule.

(5) If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the CWA for a toxic pollutant injurious to human health and that standard or prohibition is more stringent than any limitation upon such pollutant in the permit, the commissioner shall institute proceedings to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition. Effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants injurious to human health are effective and must be complied with, if applicable to the permittee, within the time provided in the implementing regulations, even absent permit modification.

(6) The permit does not convey any property rights of any sort or any exclusive privilege.

(7) The permittee shall allow the commissioner, or an authorized representative (including an authorized contractor acting as a representative of the commissioner), upon the presentation of credentials and such other documents as may be required by law:

(A) to enter upon the permittee's premises where a

point source is located or where any records must be kept under the terms and conditions of the permit;

(B) to have access to and copy at reasonable times any records that must be kept under the terms and conditions of the permit;

(C) to inspect, at reasonable times:

- (i) any monitoring equipment or method;
- (ii) any collection, treatment, pollution management, or discharge facilities; or
- (iii) practices required or otherwise regulated under the permit; and

(D) to sample or monitor, at reasonable times, any discharge of pollutants or internal wastestream (where necessary to ascertain the nature of a discharge of pollutants) for the purpose of evaluating compliance with the permit or as otherwise authorized.

(8) The permittee shall at all times maintain in good working order and efficiently operate all facilities and systems (and related appurtenances) for collection and treatment that are:

- (A) installed or used by the permittee; and
- (B) necessary for achieving compliance with the terms and conditions of the permit.

This subdivision does not act as an independent source of authority to set effluent limitations. Such limitations will be based on the design removal rates of installed treatment facilities only as required under this article. Nor should this subdivision be construed to require the operation of installed treatment facilities that are unessential for achieving compliance with the terms and conditions of the permit.

(9) The permittee shall comply with monitoring, recording, and reporting requirements established in accordance with sections 13 through 15 of this rule. The CWA, as well as IC 13-30-6-2 and IC 35-50-3-3, provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under a permit shall, upon conviction, be punished by a fine of not more than ten thousand dollars (\$10,000) per violation, or by imprisonment for not more than one hundred eighty (180) days per violation, or by both.

(10) The following are reporting requirements:

(A) Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.

(B) The permittee shall give advance notice to the commissioner of any planned changes in the permitted facility, any activity, or other circumstances that the permittee has reason to believe may result in

noncompliance with permit requirements.

(C) The permittee shall orally report information on any of the following types of noncompliance within twenty-four (24) hours from the time the permittee becomes aware of such noncompliance:

- (i) Any unanticipated bypass that exceeds any effluent limitation in the permit.
- (ii) Violation of a maximum daily discharge limitation for any of the pollutants listed by the commissioner in the permit to be reported within twenty-four (24) hours.
- (iii) Any noncompliance that may pose a significant danger to human health or the environment. Reports under this item shall be made as soon as the permittee becomes aware of the noncomplying circumstances to the emergency response telephone numbers specified in 327 IAC 2-6-2 [327 IAC 2-6 was repealed filed Feb 25, 1997, 1:00 p.m.: 20 IR 1734.].
- (iv) Any upset that exceeds any effluent limitation in the permit.

A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The commissioner may waive the written report on a case-by-case basis if the oral report has been received within twenty-four (24) hours.

(D) The permittee shall also report all instances of noncompliance not reported under clauses (A) through (C), at the time discharge monitoring reports (DMRs) are submitted. The reports shall contain the information listed in clause (C).

(E) Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the commissioner, it shall promptly submit such facts or corrected information.

(F) The permittee shall give notice to the commissioner as soon as possible of any planned physical alterations or additions to the permitted facility. (As used in this clause, "permitted facility" refers to a point source discharge, not a wastewater treatment facility. See IC 13-18-7-1.) Notice is required only when either of the following applies:

- (i) The alteration or addition to a permitted facility may meet one (1) of the criteria for determining

whether a facility is a new source in 327 IAC 5-1-2(b) [327 IAC 5-1 was repealed, filed Jan 14, 1997, 12:00 p.m.: 20 IR 1479.].

(ii) The alteration or addition could significantly change the nature of, or increase the quantity of, pollutants discharged. This notification applies to pollutants that are subject either to effluent limitations in the permit or to notification requirements under section 9 of this rule.

(11) The following are requirements for bypass:

(A) The following definitions:

(i) "Bypass" means the intentional diversion of a waste stream from any portion of a treatment facility.

(ii) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(B) The permittee may allow any bypass to occur that does not exceed any effluent limitations contained in the NPDES permit, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to clauses (C) and (D).

(C) The permittee must provide the commissioner with the following notice:

(i) If the permittee knows or should have known in advance of the need for a bypass (anticipated bypass), it shall submit prior written notice. If possible, such notice shall be provided at least ten (10) days before the date of the bypass for approval by the commissioner.

(ii) The permittee shall submit notice of an unanticipated bypass as required by subdivision (10)(C).

(D) The following provisions are applicable to bypasses:

(i) Bypass is prohibited, and the commissioner may take enforcement action against a permittee for bypass unless the following occur:

(AA) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage.

(BB) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred

during normal periods of equipment down time or preventive maintenance.

(CC) The permittee submitted notices as required under clause (C).

(ii) The commissioner may approve an anticipated bypass, after considering its adverse effects if the commissioner determines that the anticipated bypass will meet the three (3) conditions listed in item (i). The commissioner may impose any conditions determined to be necessary to minimize any adverse effects.

(12) The following are requirements for upset:

(A) "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(B) An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of clause (C) are met.

(C) A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, that:

(i) an upset occurred and the permittee has identified the specific cause of the upset, if possible;

(ii) the permitted facility was at the time being operated in compliance with proper operation and maintenance procedures;

(iii) the permittee complied with any remedial measures required under subdivision (3); and

(iv) the permittee submitted notice of the upset as required in subdivision (10)(C).

(13) It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

(14) All applications, reports, or other information submitted to the commissioner shall be signed and certified as defined under section 22 of this rule. The CWA, IC 13-6-2 [IC 13-6 was repealed by P.L. 1-1996, SECTION 99, effective July 1, 1996.], and IC 35-50-3-3 provide that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a

fine of not more than ten thousand dollars (\$10,000) per violation, or by imprisonment for not more than one hundred eighty (180) days per violation, or by both.

*(Water Pollution Control Board; 327 IAC 5-2-8; filed Sep 24, 1987, 3:00 p.m.: 11 IR 620; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1741; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1423)*

### **327 IAC 5-2-9 Notification requirements for toxic pollutants**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-2; IC 13-18-4  
**Affected:** IC 13-15-1-2; IC 13-18-3

Sec. 9. In addition to the reporting requirements of section 8(10) of this rule, permits issued to any manufacturing, commercial, mining, or silvicultural discharger shall contain conditions requiring the discharger to notify the commissioner as soon as the discharger knows or has reason to know the following:

(1) That any activity has occurred or will occur that would result in the discharge of any toxic pollutant that is not limited in the permit if that discharge will exceed the highest of the following notification levels:

- (A) One hundred (100) micrograms per liter.
- (B) Two hundred (200) micrograms per liter for acrolein and acrylonitrile; five hundred (500) micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one (1) milligram per liter for antimony.
- (C) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
- (D) A notification level established by the commissioner on a case-by-case basis, either at the commissioner's own initiative or upon a petition by the permittee. This notification level may exceed the levels specified in clause (A), (B), or (C) but may not exceed the level which can be achieved by the technology-based treatment requirements applicable to the permittee under the CWA (see 327 IAC 5-5-2).

(2) That the discharger has begun or expects to begin to use or manufacture, as an intermediate or final product or byproduct, any toxic pollutant that was not reported in the permit application under 40 CFR 122.21(g)(9). However, this subdivision does not apply to the permittee's use or manufacture of a toxic pollutant solely under research or laboratory conditions.

*(Water Pollution Control Board; 327 IAC 5-2-9; filed Sep 24, 1987, 3:00 p.m.: 11 IR 622; filed Apr 9, 2003, 2:55 p.m.: 26 IR 2613)*

### **327 IAC 5-2-10 Applicable limitations, standards, and conditions**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 10. Each NPDES permit shall provide for and ensure compliance with all applicable requirements of the Clean Water Act (CWA), regulations promulgated under the CWA, and state law. For the purposes of this section, an applicable requirement is a statutory or regulatory requirement that takes effect under state law prior to final administrative disposition of a permit. In addition to the requirements of sections 6, 8, 9, and 12 of this rule, permits shall contain terms and conditions that ensure compliance with the following requirements as applicable:

- (1) Effluent limitations and standards under Sections 301, 304, 307(a), 318, and 405 of the CWA.
- (2) Standards of performance for new sources under Section 306 of the CWA and 40 CFR 122.44(a).
- (3) In the case of a POTW, which primarily is designed and utilized for the treatment of wastewater from an industry of a particular class or category, the effluent limitations or standards that would apply under Section 301, 304, 306, 307, 318, or 405 of the CWA to the industry if it were a direct discharger. If the POTW receives sewage from domestic sources as well as industrial wastewater, the permit shall include composite (or hybrid) effluent limitations comprising the effluent limitations or standards applicable to the industrial wastewater, as specified in this subdivision, and effluent limitations applicable to the domestic sewage under Sections 301 and 304 of the CWA. Such composite limitations will be cumulative for mass limitations and weighted in proportion to respective flows for concentration limitations.
- (4) Water quality standard based and other more stringent requirements. Any effluent limitations or other requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards under Sections 301, 304, 306, 307, 318, and 405 of the CWA where necessary to do the following:
  - (A) Achieve water quality standards established by the water pollution control board or by EPA in accordance with Sections 118 and 303 of the CWA. Numeric water quality-based effluent limitations shall be established in accordance with sections 11.1 and 11.3 through 11.6 of this rule.
  - (B) Attain or maintain a specified water quality through water quality related effluent limits established under Section 302 of the CWA.
  - (C) Incorporate, in accordance with Section 301(b)(1)(C) of the CWA, any more stringent limitations, treatment standards, or schedules of compliance requirements established under federal

or state law or regulations (including those adopted under interstate agreements or compacts such as the Ohio River Valley Water Sanitation Commission (ORSANCO)).

(D) Ensure consistency with the requirements of a water quality management plan approved by EPA under Section 208(b) of the CWA.

(E) Incorporate alternative effluent limitations or standards where warranted by fundamentally different factors, under 327 IAC 5-6.

(5) The following requirements for toxic pollutant limitations:

(A) Limitations established under subdivision (1), (2), (3), or (4) to control pollutants meeting the criteria listed in clause (B). Such limitations shall be established in accordance with clause (C).

(B) Limitations must control all toxic pollutants that:

(i) the commissioner determines (based on information reported in a permit application or in a notification under section 9 of this rule or on other information) are or may be discharged at a level greater than the level that is allowed under the technology-based effluent limitations applicable to the permittee under the CWA (see 327 IAC 5-5-2(c)); or

(ii) the discharger does or may use or manufacture as an intermediate or final product or byproduct; however, limitations are not required under this subdivision merely because the discharger does or may use or manufacture a toxic pollutant under research or laboratory conditions.

(C) The requirement that the limitations control the pollutants meeting the criteria of clause (B) shall be satisfied by:

(i) limitations on those pollutants; or

(ii) limitations on other pollutants that, in the judgment of the commissioner, will ensure treatment of the pollutants specified under clause (B) to the levels required by the CWA.

(D) As used in this subdivision, "toxic pollutant" means:

(i) a pollutant listed as toxic under Section 307(a)(1) of the CWA; or

(ii) a pollutant or a combination of pollutants determined by the commissioner to have significant toxic characteristics when discharged into the waters of the state for organisms reasonably expected to be exposed to such pollutant or pollutants.

(6) Permits issued prior to promulgation by the administrator of applicable effluent limitations and standards (including best management practices) under Sections 301, 304, 307, 318, and 405 of the CWA shall contain

such limitations and other conditions as the commissioner determines to be necessary to carry out those provisions of the CWA, under 327 IAC 5-5-2(b) and Section 402(a)(1) of the CWA.

(7) Best management practices to control or abate the discharge of pollutants where:

(A) required under Section 304(e) of the CWA for the control of toxic and hazardous pollutants from ancillary industrial activities;

(B) numeric effluent limitations are infeasible; or

(C) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

Examples of best management practices that may be appropriate under clause (B) include proper operation and maintenance criteria and sludge-handling requirements. Examples of best management practices that may be appropriate under clause (C) include the construction of sheds over material storage piles to prevent rainfall from leaching materials from these piles and creating a source of pollution; ditching and diversion of rainfall run-off to minimize or prevent contamination from a discharger's manufacturing operations; and the use of solid, absorbent materials for cleaning up leaks and drips as opposed to washing these materials down a floor drain creating additional sources of pollution.

(8) Twenty-four (24) hour reporting. Pollutants for which the permittee must report violations of maximum daily discharge limitations under section 8(10)(C)(iii) of this rule (twenty-four (24) hour reporting) shall be listed as such in the permit. This list shall include any toxic pollutant or hazardous substance, or any pollutant specifically identified as the method to control a toxic pollutant or hazardous substance.

(9) Any conditions that the Secretary of the Army considers necessary to ensure that navigation and anchorage will not be substantially impaired, in accordance with 327 IAC 5-3-10(a).

(10) Additional conditions applicable to POTWs shall be as follows:

(A) Any conditions imposed in grants made by the administrator to POTWs under Sections 201 and 204 of the CWA that are reasonably necessary for the achievement of effluent limitations required under Section 301 of the CWA.

(B) Requirements under Section 405 of the CWA governing the disposal of sewage sludge from POTWs or any other treatment works treating domestic sewage for any use for which rules have been established in accordance with any applicable rules.

(C) All POTWs shall identify, in terms of character

and volume of pollutants, any significant indirect discharges into the POTW which are subject to pretreatment standards under Section 307(b) and 307(c) of the CWA.

(D) All POTWs must provide adequate notice to the commissioner of the following:

(i) Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Section 301 or 306 of the CWA if it were directly discharging those pollutants.

(ii) Any substantial change in the volume or character of pollutants being introduced into that POTW by any source where such change would render the source subject to pretreatment standards under Section 307(b) or 307(c) of the CWA or would result in a modified application of such standards.

As used in this clause, "adequate notice" includes information on the quality and quantity of effluent introduced into the POTW and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(E) POTWs must develop and submit to the commissioner a POTW pretreatment program when required by 40 CFR 403 and 327 IAC 5-13-1 in order to assure compliance by industrial users of the POTW with applicable pretreatment standards established under Sections 307(b) and 307(c) of the CWA. The pretreatment program shall meet the criteria of 327 IAC 5-13-2(f) and, once approved, shall be incorporated into the POTW's permit.

(11) Antibacksliding requirements shall be as follows:

(A) In the case of effluent limitations established on the basis of Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under Section 304(b) of the CWA subsequent to the original issuance of such permit to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit. In the case of effluent limitations established on the basis of Section 301(b)(1)(C), 303(d), or 303(e) of the CWA, a permit may not be renewed, reissued, or modified to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit except in compliance with Section 303(d)(4) of the CWA.

(B) A permit, with respect to which clause (A) applies, may be renewed, reissued, or modified to contain less stringent effluent limitations applicable to a pollutant if:

(i) material and substantial alterations or additions to the permitted facility occurred after permit

issuance that justify the application of a less stringent effluent limitation;

(ii) information is available that was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and that would have justified the application of a less stringent effluent limitation at the time of permit issuance, or the commissioner determines that technical mistakes or mistaken interpretations of law were made in issuing the permit under Section 402(a)(1)(B) of the CWA;

(iii) a less stringent effluent limitation is necessary because of events over which the permittee has no control and for which there is no reasonably available remedy;

(iv) the permittee has received a permit modification under Section 301(c), 301(g) through 301(i), 301(k), 301(n), or 316(a) of the CWA; or

(v) the permittee has installed the treatment facilities required to meet the effluent limitations in the previous permit and has properly operated and maintained the facilities, but has nevertheless been unable to achieve the previous effluent limitations, in which case the limitations in the reviewed, reissued, or modified permit may reflect the level of pollutant control actually achieved (but shall not be less stringent than required by effluent guidelines in effect at the time of permit renewal, reissuance, or modification).

Item (ii) shall not apply to any revised waste load allocations or any alternative grounds for translating water quality standards into effluent limitations, except where the cumulative effect of such revised allocations results in a decrease in the amount of pollutants discharged into the concerned waters, and such revised allocations are not the result of a discharger eliminating or substantially reducing its discharge of pollutants due to complying with the requirements of the CWA or for reasons otherwise unrelated to water quality.

(C) In no event may a permit with respect to which clause (A) applies be renewed, reissued, or modified to contain an effluent limitation that is less stringent than required by effluent guidelines in effect at the time the permit is renewed, reissued, or modified. In no event may such a permit to discharge into waters be renewed, reissued, or modified to contain a less stringent effluent limitation if the implementation of such limitation would result in a violation of a water quality standard under Section 303 of the CWA, 327 IAC 2-1, or 327 IAC 2-1.5 applicable to such waters.

(12) For a POTW, any conditions expressly applicable to any user, as a limited copermitee, that may be

necessary in the permit issued to the treatment works to ensure compliance with applicable requirements under this subdivision. Alternatively, the commissioner may issue separate permits to the treatment works and to its users, or may require a separate permit application from any user. The commissioner's decision to issue a permit with no conditions applicable to any user, to impose conditions on one (1) or more users, to issue separate permits, or to require separate applications, and the basis for that decision, shall be stated in the fact sheet for the draft permit for the treatment works.

*(Water Pollution Control Board; 327 IAC 5-2-10; filed Sep 24, 1987, 3:00 p.m.: 11 IR 623; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1743; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1426; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378)*

### **327 IAC 5-2-11 Considerations in the calculation and specification of effluent limitations**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 11. (a) The following definitions and averaging procedure apply throughout this section:

(1) "Average monthly discharge" means the total mass or flow-weighted concentration of all daily discharges sampled or measured during a calendar month on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such month. The average monthly discharge limitation is the highest allowable average monthly discharge for any calendar month.

(2) "Average weekly discharge" means the total mass or flow-weighted concentration of all daily discharges during any calendar week on which daily discharges are sampled or measured, divided by the number of daily discharges sampled and/or measured during such calendar week. The average weekly discharge limitation is the maximum allowable average weekly discharge for any calendar week.

(3) "Continuous discharge" means a discharge that occurs without interruption, except for infrequent shutdowns for maintenance, process changes, or other similar activities, throughout the operating hours of the facility.

(4) "Daily discharge" means the total mass of a pollutant discharged during the calendar day or, in the case of a pollutant limited in terms other than mass pursuant to subsection (e), the average concentration or other measurement of the pollutant specified over the

calendar day or any twenty-four (24) hour period that reasonably represents the calendar day for the purposes of sampling. The maximum daily discharge limitation is the maximum allowable daily discharge for any calendar day.

(5) The average of discharge data shall be determined as follows:

(A) For fecal coliform, the average monthly discharge and average weekly discharge, as concentrations, shall be calculated using a geometric mean.

(B) For E. coli, the average monthly discharge, as a concentration, shall be calculated using a geometric mean.

(C) For all other parameters, calculations that require averaging of sample analyses or measurements of daily discharges shall use an arithmetic mean unless otherwise specified or approved by the commissioner.

(b) All permits shall impose final and, where necessary, interim effluent limitations under sections 8 and 10 of this rule for each outfall or discharge point of the permitted facility, except as otherwise provided under section 10(7)(B) of this rule and subsection (h).

(c) Production-based limitations requirements shall be as follows:

(1) For dischargers other than POTWs, permit effluent limitations which are based on production rates (or another measure of operation) shall be calculated on the basis of a reasonable measure of the actual production of the facility. The time period of the production rate shall correspond to the time period of the calculated permit limitations, for example, monthly production shall be used to calculate average monthly limitations. The commissioner may include a condition establishing alternate permit limitations, standards, or prohibitions based upon anticipated increases (not to exceed maximum production capacity) or decreases to production levels.

(2) A discharger whose permit limitations are determined through a waste load allocation procedure, for example, to maintain water quality above applicable standards, may request the commissioner to calculate the discharger's load allocation, relative to the load allocations of other dischargers, on the basis of the design production capacity of the discharger's facility. The commissioner may grant such a request if the commissioner determines that a reasonable probability exists that the discharger will attain the design production capacity for significant periods during the expected lifetime of the waste load allocation. Even if a discharger's load allocation is established on the basis of design production, the commissioner shall consider the discharger's current actual production in calculating

current permit limitations.

(3) In the case of POTWs, permit limitations shall be calculated based on design flow unless good cause exists for utilizing a different basis, for example, effluent limitations for a POTW designed to treat industrial wastes under section 10 of this rule would be based on actual production.

(d) For continuous dischargers, all interim and final permit effluent limitations, including those necessary to achieve water quality standards, shall be stated, unless impracticable, as maximum daily and average monthly discharge limitations for all dischargers, except that, for POTWs average weekly and average monthly discharge limitations shall be used for BOD<sub>5</sub>, TSS, and ammonia nitrogen. For discharges within the Great Lakes system, limitations for ammonia shall be stated as maximum daily and average monthly discharge limitations for all dischargers.

(e) All pollutants limited in permits shall have effluent limitations expressed in terms of mass except:

(1) for pH, temperature, radiation or other pollutants, and flow that cannot be appropriately expressed by mass;

(2) where applicable, promulgated effluent guideline limitations, standards, or prohibitions are expressed in terms other than mass, for example, as concentration levels; or

(3) if, in establishing permit limitations on a case-by-case basis, limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operation (for example, discharges of total suspended solids (TSS) from certain mining operations) or are inadequate to assure continuous compliance with applicable water quality standards, and permit conditions ensure that dilution will not be used as a substitute for treatment.

Pollutants limited in terms of mass additionally may be limited in terms of other units of measurement, and the permit shall require the permittee to comply with both limitations.

(f) Except as provided as follows or in section 11.1(g) or 11.6(i) of this rule, effluent limitations imposed in permits shall not be adjusted for pollutants in the intake water:

(1) Upon request of the discharger, technology-based effluent limitations imposed in a permit shall be calculated on a net basis, that is, adjusted to reflect credit for pollutants in the discharger's intake water, if each of the following conditions are met:

(A) The applicable effluent limitations guidelines or standards promulgated under the Clean Water Act (CWA) specifically provide that they shall be applied on a net basis or the discharger demonstrates

that pollutants present in the intake water will not be essentially removed by the properly installed, maintained, and operated intake and wastewater treatment systems operated by the discharger.

(B) The discharger's intake water is drawn from:

(i) the same body of water into which the discharge is made; or

(ii) a body of water containing ambient concentrations of pollutants for which net limitations are desired that are no greater than the upstream ambient concentrations for the pollutants in the body of water receiving the discharge.

(C) The pollutants in the intake water do not vary significantly in physical, chemical, or biological nature from the pollutants limited by the permit nor are they concentrated by the discharger to such a degree that their discharge would significantly degrade the quality of the receiving body of water.

(2) Adjustments to a discharger's effluent that allow for the application of effluent limitations on a net basis shall be calculated as follows, and the amount of pollutants present in the intake water limited by the permit shall be reduced:

(A) To reflect removal of such pollutants by any treatment of the intake water performed by or for the discharger.

(B) To reflect any further removal of such pollutants by the wastewater treatment technology employed by the discharger.

The amount of such pollutants remaining after the reductions may be applied as an adjustment to the gross amount of the pollutants in the discharge prior to its evaluation for compliance with applicable effluent limitations. If the discharger can demonstrate that pollutants are present in the intake water in sufficient quantities to significantly reduce the efficiency of the discharger's wastewater treatment system, the amount of the adjustment calculated under this subsection may be modified to the extent necessary to compensate for the reduction in treatment efficiency.

(3) If the application of effluent limitations on a net basis is authorized under this subsection, the permit shall specify the method of calculating adjustments to the gross effluent and shall contain conditions requiring the permittee to conduct additional monitoring, for example, for flow and concentration of pollutants, as necessary to determine continued eligibility for and compliance with any such adjustments. The discharger shall notify the commissioner if this monitoring indicates that eligibility for an adjustment under this section has been altered or no longer exists. In such case, the permit shall be modified or revoked and reissued under section 16 of this rule.

(4) Credit for generic pollutants such as biochemical oxygen demand (BOD) or TSS shall not be granted unless:

(A) the permittee demonstrates that the constituents of the generic measure in the effluent are substantially similar to the constituents of the generic measure in the intake water; or

(B) appropriate additional limits are placed on process water pollutants either at the outfall or elsewhere.

(5) Credit shall be granted only to the extent necessary to meet the applicable limitation or standard, up to a maximum value equal to the influent value. Additional monitoring may be necessary to determine eligibility for credits and compliance with permit limits.

(g) Discharges that are not continuous, as defined in subsection (d), shall be particularly described and limited, considering the following factors, as appropriate:

(1) Frequency.

(2) Total mass.

(3) Maximum rate of discharge of pollutants during the discharge.

(4) Prohibition or limitation of specified pollutants by mass, concentration, or other appropriate measure.

(h) Where permit effluent limitations imposed at the point of discharge are impractical or infeasible (such as where the final discharge point is practicably inaccessible, the wastes at the point of discharge are so diluted as to make monitoring impracticable, or interferences among pollutants at the point of discharge would make detection or analysis impracticable), effluent limitations for discharges of pollutants may be imposed on internal waste streams prior to mixing with other waste streams or cooling water streams. In such instances, the effluent limitations shall be adjusted to reflect any removal of pollutants occurring between the point at which the limitation is imposed and the point of discharge, and the monitoring, recording, and reporting required by sections 13 through 15 of this rule shall be applied to the internal waste streams at the closest practicable or feasible point to the point of discharge unless the permittee and the commissioner agree that another location is more suitable. Intermediate waste streams that constitute input to other industrial processes (excluding treatment processes) shall not be considered internal waste streams for purposes of this subsection.

(i) Where part of a discharger's process wastewater is not being discharged into waters of the state because it is disposed into a well, into a POTW, or by land application, applicable effluent limitations and standards for the discharge shall be adjusted in the permit to reflect the reduced raw waste resulting from such disposal, including the following:

(1) Adjusted effluent limitations and standards in the permit shall be calculated by one (1) of the following methods:

(A) If none of the waste from a particular process is discharged into waters of the state and effluent limitations guidelines provide separate allocation for wastes from that process, all allocations for the process shall be eliminated from calculation of permit effluent limitations or standards.

(B) In all cases other than those described in clause (A), effluent limitations shall be adjusted by multiplying the effluent limitation derived by applying effluent guidelines to the total waste stream by the amount of wastewater flow to be treated and discharged into waters of the state, and dividing the result by the total wastewater flow. Effluent limitations and standards so calculated may be further adjusted under 327 IAC 5-6 to make them more stringent if discharges to wells, POTW, or by land application change the character or treatability of the pollutants being discharged to receiving waters.

(2) Subdivision (1) shall not apply where promulgated effluent limitations guidelines:

(A) control concentrations of pollutants discharged, but not mass; or

(B) specify a different specific technique for adjusting effluent limitations to account for well injection.

(3) Subdivision (1) does not alter a discharger's obligation to meet any more stringent requirements otherwise established under this rule.

(j) Technology-based permit effluent limitations, standards, or prohibitions for a metal shall be expressed in terms of total recoverable metals as defined in 40 CFR 136 unless:

(1) an applicable effluent standard or limitation has been promulgated under the CWA and specifies the limitation for the metal in the dissolved, valent, or total form;

(2) in establishing permit limitations on a case-by-case basis under 327 IAC 5-5-2, it is necessary to express the limitation on the metal in the dissolved, valent, or total form to carry out the provisions of the CWA; or

(3) all approved analytical methods for the metal inherently measure only its dissolved form, for example, hexavalent chromium.

*(Water Pollution Control Board; 327 IAC 5-2-11; filed Sep 24, 1987, 3:00 p.m.: 11 IR 625; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1746; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1429; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378)*

**327 IAC 5-2-11.1 Establishment of water quality-based effluent limitations for dischargers not discharging to waters within the Great Lakes system**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 11.1. (a) The water quality standards established through the criteria set forth in 327 IAC 2-1-6 or under the procedures described in 327 IAC 2-1-8.2 through 327 IAC 2-1-8.6:

(1) shall be the basis for water quality-based effluent limitations applicable to point source dischargers, not discharging to waters within the Great Lakes system, through NPDES permits (except for instances where a variance has been approved under 327 IAC 2-1-8.8 and 327 IAC 5-3-4.1); and

(2) shall not be enforceable against point source dischargers until translated into effluent limitations which are incorporated in NPDES permits in accordance with this article.

(b) This subsection describes how the water quality criteria in 327 IAC 2-1-6(a) or those criteria derived using the procedures in 327 IAC 2-1-8.2 through 327 IAC 2-1-8.6 will be applied in determining appropriate water quality-based effluent limitations to NPDES permits as follows:

(1) The final acute value (FAV = 2(AAC)) will be applied directly to the undiluted discharge, or, if dilution by discharge induced mixing is allowed, the AAC will be applied outside the discharge induced mixing zone.

(2) The CAC and the TLSC will be applied outside of the mixing zone. In the absence of site-specific mixing zone data, the allowable mixing zone dilution shall be determined by applying the guideline in 327 IAC 2-1-4 to the  $Q_{7,10}$  low flow of the receiving stream.

(3) The HLSC shall be applied outside of the mixing zone, if based on the consumption of organisms and incidental water intake. If based on consumption of organisms and drinking water, the HLSC shall apply at the point of the water supply intake, if this does not cause the HLSC based on consumption of organisms and incidental water intake to be exceeded outside of the mixing zone. Allowable mixing zone dilution shall be determined by applying the guideline of 327 IAC 2-1-4 to the  $Q_{7,10}$  low flow of the receiving stream if the HLSC is based on consumption of organisms and incidental water intake and the  $Q_{7,10}$  flow at the point of water supply intake (provided the effluent has had time to fully mix with the receiving water) shall be allowed for dilution if the HLSC is based on consumption of organisms and drinking water.

(4) The criterion to provide an acceptable degree of protection to public health for cancer effects shall apply outside of the mixing zone if the criterion is

based on consumption of organisms and incidental water intake and at the point of water supply intake if based on the consumption of organisms and drinking water, if this would not cause the criterion based on the consumption of organisms and incidental water intake to be exceeded outside of the mixing zone. For calculation of allowable dilution, one-fourth ( $\frac{1}{4}$ ) of the fiftieth percentile flow of the receiving stream shall be used if the criterion is based on consumption of organisms and incidental water intake, and the fiftieth percentile flow of the receiving stream at the point of water intake can be used if the criterion is based on the consumption of organisms and drinking water.

(5) As used in this rule, “FAV”, “AAC”, “CAC”, “TLSC”, and “HLSC” have the same meanings as defined in 327 IAC 2-1-9.

(6) For a new discharge of a BCC, the water quality standard for a BCC shall be applied directly to the undiluted discharge. Beginning January 1, 2004, the water quality standard for a BCC shall be applied directly to the undiluted discharge for all discharges of a BCC. As used in this subdivision, “new discharge” means a discharge of a BCC that is initiated after the effective date of this subdivision.

(c) In a case where a variance has been granted from a water quality standard under 327 IAC 2-1-8.8 and 327 IAC 5-3-4.1, water quality-based effluent limitations for the pollutant that is the subject of the variance shall be calculated under subsection (b) on the basis of the variance rather than the water quality standard.

(d) In accordance with 327 IAC 2-1-6(a)(3), effluent limitations which are based on water quality criteria for metals from 327 IAC 2-1-6(a)(2) Table 1, or subsequently developed under the procedures contained under 327 IAC 2-1-8, shall be expressed as the total recoverable fraction unless any of the following occur:

(1) An acid-soluble analytical method for the metal has been approved by EPA and the board through rulemaking, in which case the effluent limitation may be expressed as acid-soluble fraction.

(2) For a specific permittee, the commissioner determines that it is feasible to identify the ratio of the soluble fraction to the total recoverable fraction for a metal in the permittee's discharge after mixing with the receiving stream, in which case the effluent limitation shall be expressed as the total recoverable fraction for which the numeric limit has been increased on the basis of the ratio.

(3) All approved analytical methods for the metal inherently measure only its dissolved form, for example, hexavalent chromium.

(e) It is the express intent of the board that, when an acid-soluble analytical method is approved for metals, the

redesignation of numeric effluent limitations from total recoverable fraction to acid-soluble fraction shall not be construed as backsliding for purposes of Section 402(o) of the Clean Water Act (CWA) in cases where the effluent limitations are based on the acid-soluble criteria of 327 IAC 2-1-6(a)(2) Table 1.

(f) When the water quality-based effluent limitation for any substance is less than the limit of quantitation normally achievable and determined by the commissioner to be appropriate for that substance in the effluent, the permit shall contain the following provisions:

(1) The permittee shall be required to use an approved analytical methodology for the substance in the effluent to produce the LOD and LOQ achievable in the effluent. This analytical method, and the LOD and LOQ associated with this method, shall be specified in the permit in addition to the following requirements:

(A) The permit shall include conditions that state that effluent concentrations less than the limit of quantitation are in compliance with the effluent limitations.

(B) In addition, the permit shall require the permittee to implement one (1) or more of the following requirements:

- (i) Develop a more sensitive analytical procedure.
- (ii) Use an existing, more sensitive, analytical procedure that has not been approved by EPA.
- (iii) Conduct studies to determine the bioaccumulative or bioconcentrative properties of the substance in aquatic species through caged-biota studies or fish tissue analyses of resident species.
- (iv) Conduct effluent bioconcentration evaluations.
- (v) Conduct whole effluent toxicity testing.
- (vi) Other requirements, as appropriate, such as engineering assessments or sediment analyses.

For substances defined as bioaccumulative chemicals of concern, at a minimum, either item (iii) or (iv) shall be included in the permit.

(2) If the measured effluent concentrations for a substance are above the water quality-based permit limitations and above the limit of detection specified by the permit in any three (3) consecutive analyses or any five (5) out of nine (9) analyses, or if any of the additional analyses required under subdivision (1)(B) indicate that the substance is present in the effluent at concentrations exceeding the water quality-based permit limitations, the permit shall contain provisions that require the discharger to:

(A) determine the source of this substance through evaluation of sampling techniques, analytical/laboratory procedures, and industrial processes and waste streams; and

(B) increase the frequency of sampling and testing for the substance.

(3) The permit shall contain provisions allowing the permit to be reopened, in accordance with section 16 of this rule, to include additional requirements or limitations if the information gathered under subdivisions (1) and (2) indicates that such additional requirements or limitations are necessary.

(g) The department shall use the representative ambient upstream concentration of a substance in determining the water quality-based effluent limitations for that substance. This upstream concentration shall be determined by the department on a case-by-case basis, using existing, acceptable data for the receiving water. Where limited or no acceptable data exists, the permittee shall be required to supply the necessary data. Whenever the representative ambient upstream concentration for a substance in the receiving water is determined to be greater than any applicable water quality standard for that substance, the following conditions apply:

(1) If the source of the wastewater is not the receiving water, the permit limitations shall be calculated using the applicable water quality standard and a value of zero (0) for the upstream dilution flow. Except for substances defined as bioaccumulative chemicals of concern, the department may establish limitations greater than the applicable water quality standard for the substance as required in this subdivision, in a range up to, but not greater than, the lesser of the representative ambient upstream concentration of the substance in the receiving water or the representative ambient concentration of the substance in the body of water at the point of intake. The limitation shall only be increased above the standard if it is demonstrated to the department that the concentration of the substance in the body of water at the point of intake exceeds the applicable standard for that substance and that reasonable, practical, or otherwise required methods are implemented to minimize the addition of the substance to the wastewater.

(2) If the source of the wastewater is the receiving water, the effluent limitation for that substance shall equal the representative ambient upstream concentration of that substance in the receiving water as determined by the department. Where circumstances allow, such as the discharge of once through noncontact cooling water, this will be implemented through the use of net limitations, with a net limitation of zero (0) being applied to the effluent. The representative ambient upstream concentration applicable to this subdivision shall be established at the upper ninety-ninth percentile of the available acceptable upstream data or otherwise appropriately determined as the

reasonably expected upstream concentration for that substance.

(h) In addition to the requirements of 40 CFR 122.43(a), NPDES permits shall include limitations more stringent than promulgated effluent limitations guidelines from Sections 301, 306, 307, 318, and 405 of the CWA where necessary to achieve water quality standards established under Section 303 of the CWA, including narrative criteria for water quality as follows:

(1) Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants), which the commissioner determines are, or may be, discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any narrative or numeric water quality standard promulgated under 327 IAC 2-1-6.

(2) When determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within an Indiana water quality standard, the commissioner shall use procedures which account for existing controls on point and nonpoint source of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and, where appropriate, the dilution of the effluent in the receiving water.

(3) When the commissioner determines, using the procedures in subdivision (2), that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a numeric criteria from 327 IAC 2-1-6 for an individual pollutant, the permit must contain effluent limitations for that pollutant.

(4) When the commissioner determines, using the procedures in subdivision (2), that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the numeric criterion for whole effluent toxicity, the permit must contain effluent limits for whole effluent toxicity.

(5) Except as provided in this subdivision, when the commissioner determines, using the procedures in subdivision (2), toxicity testing data, or other information, that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative criterion from 327 IAC 2-1-6, the permit must contain effluent limitations for whole effluent toxicity. Limitations on whole effluent toxicity are not necessary where the commissioner demonstrates in the fact sheet or briefing memo of the NPDES permit, using the procedures in subdivision (2), that chemical-specific limits for the effluent are sufficient to attain and maintain applicable numeric

and narrative water quality standards.

(6) Where a water quality criterion has not been established for a specific chemical pollutant that is present in an effluent at a concentration that causes, has the reasonable potential to cause, or contributes to an excursion above a narrative criterion from 327 IAC 2-1-6, the commissioner must establish effluent limits using one (1) or more of the following options:

(A) Establish effluent limits using a calculated numeric water quality criterion for the pollutant which the commissioner demonstrates will attain and maintain applicable narrative water quality criteria and will fully protect the designated use. Such a criterion may be derived using a proposed state criterion, or an explicit policy or rule interpreting the narrative water quality criterion, supplemented with other relevant information that may include:

- (i) EPA's Water Quality Standards Handbook, Second Edition—Revised (1994);
- (ii) risk assessment data;
- (iii) exposure data;
- (iv) information about the pollutant from the Food and Drug Administration; and
- (v) current EPA criteria documents.

(B) Establish effluent limits on a case-by-case basis, using EPA's water quality criteria, published under Section 307(a) of the CWA, supplemented where necessary by other relevant information.

(C) Establish effluent limitations on an indicator parameter for the pollutant of concern, provided the following:

- (i) The permit identifies which pollutants are intended to be controlled by the use of the effluent limitation.
- (ii) The fact sheet required by 327 IAC 5-3-8 sets forth the basis for the limit, including a finding that compliance with the effluent limit on the indicator parameter will result in controls on the pollutant of concern that are sufficient to attain and maintain applicable water quality standards.
- (iii) The permit requires all effluent and ambient monitoring necessary to show that during the term of the permit the limit on the indicator parameter continues to attain and maintain applicable water quality standards.
- (iv) The permit contains a reopening clause allowing the permitting authority to modify or revoke and reissue the permit if the limits on the indicator parameter no longer attain and maintain applicable water quality standards.

(7) When developing water quality-based effluent limits under this subsection, the commissioner shall ensure the following:

(A) The level of water quality to be achieved by limits on point sources established under this subsection is derived from, and complies with, all applicable water quality standards.

(B) Effluent limits developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any available waste load allocation for the discharge prepared by the commissioner and approved by EPA under 40 CFR 130.7.

(i) Water quality-based limitations may be expressed, where appropriate, in terms of toxicity or toxic units (TU), for example, the  $LC_{10}$  for fathead minnow of the effluent from outfall 001 shall be greater than one hundred percent (100%) or shall not exceed one (1)  $TU_a$ . As used in this subsection, "toxic unit" or "TU" means the unit used for whole effluent toxicity-based limitations for the protection of the receiving stream from toxic effects and is defined as one hundred (100) divided by the  $LC_{10}$  or the no observed effect level (NOEL). (*Water Pollution Control Board; 327 IAC 5-2-11.1; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1043; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1749; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1432; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378*)

**327 IAC 5-2-11.2 Public notice of comment period and public meetings for site-specific modification of water quality criteria and values; implementation of antidegradation; alternate mixing zone demonstrations; variances**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-15-4-1; IC 13-15-5-1; IC 13-18-4; IC 13-18-7; IC 13-23-13; IC 13-24-1; IC 13-25-5

Sec. 11.2. (a) This section is applicable to the following:

- (1) An application for site-specific modification of Tier I water quality criteria and Tier II water quality values under 327 IAC 2-1.5-16(b).
  - (2) An application for an antidegradation demonstration under section 11.3(b)(4) of this rule.
  - (3) An application for an antidegradation exception under section 11.7(c) of this rule.
  - (4) An application for an alternate mixing zone under section 11.4(b)(4)(D) of this rule.
  - (5) An application for a variance under 327 IAC 5-3-4.1(c).
- (b) Upon receipt of an application listed in subsection (a), the commissioner shall provide notice, request

comment, and, if requested, schedule and hold a public meeting on the application in accordance with the following conditions:

(1) The commissioner shall provide notice of receipt of an application in the following manner:

(A) Publication of a notice in a daily or weekly newspaper in general circulation throughout the area affected by the discharge for which the application was submitted.

(B) Send the notice to interested persons on either of the following mailing lists:

(i) The mailing list identified under 327 IAC 5-3-8(a).

(ii) The mailing list identified under 327 IAC 5-3-12(b)(1).

(C) Send the notice to the applicant.

(2) The notice under subdivision (1) shall contain the following:

(A) Name and address of the department.

(B) Name and address of the applicant.

(C) An identification of the type of application submitted, such as alternate mixing zone or variance.

(D) A brief description of the location of any existing or proposed discharge point subject to the application, including an identification of the receiving water.

(E) A brief description of the applicant's activities or operations that result in the discharge identified in the application.

(F) An identification of the substance for which the application was submitted.

(G) Name of an agency contact person, and an address and telephone number where interested persons may obtain further information, including a copy of the application.

(H) A brief description of the comment procedures and the procedures to request a public meeting.

(3) If requested, the commissioner shall hold a public meeting on the application in accordance with the following provisions:

(A) The commissioner shall provide notice of the public meeting as follows:

(i) Publication of a notice in a daily or weekly newspaper in general circulation throughout the area affected by the discharge for which the application was submitted.

(ii) Send the notice to the following interested persons:

(AA) Persons on the mailing list identified under 327 IAC 5-3-8(a).

(BB) Persons on the mailing list identified under 327 IAC 5-3-12(b)(1).

(CC) Those persons that commented on the

notice of receipt of the application.

(iii) Send the notice to the applicant.

(B) The notice required by clause (A) shall contain the date, time, and place of the public meeting, and the information required under subdivision (2).

(C) This meeting shall be held at least ten (10) days after the later of the following:

(i) The notice, in accordance with clause (A)(i) appears in the newspaper.

(ii) The postmark date of the written notice sent to interested parties and to the applicant in accordance with clause (A)(ii) and (A)(iii).

(D) The meeting shall be recorded by any of the following:

(i) Audio tape.

(ii) Video tape.

(iii) Any other method of accurately and completely recording the details of the meeting.

(E) The commissioner shall request the applicant to provide a summary and rationale for the application at the meeting.

(F) At the commissioner's discretion, a public meeting may be noticed and held without having first received a request for a public meeting. In these instances, the notice for the public meeting may be contained in the notice of receipt of the application.

(4) The time period under IC 13-15-4-1 is hereby changed to increase the period by thirty (30) days for any permit application subject to the time period that is affected by the application. If a public meeting is requested, the time period under IC 13-15-4-1 is hereby changed to increase the period by an additional thirty (30) days.

*(Water Pollution Control Board; 327 IAC 5-2-11.2; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1435; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378)*

### **327 IAC 5-2-11.3 Great Lakes system dischargers antidegradation implementation procedures**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2-24; IC 13-15-5-1; IC 13-18-4; IC 13-18-7; IC 13-23-13; IC 13-24-1; IC 13-25-5

Sec. 11.3. (a) For all waters within the Great Lakes system, the commissioner shall ensure that the level of water quality necessary to protect existing uses is maintained. In order to achieve this requirement, and consistent with 40 CFR 131.10, water quality standards use designations must include all existing uses. Controls shall be established as necessary on point and nonpoint sources of pollutants to ensure that the criteria applicable

to the designated use are achieved in the water and that any designated use of a downstream water is protected. Where water quality does not support the designated uses of a waterbody or ambient pollutant concentrations are greater than water quality criteria applicable to that waterbody, the commissioner shall not allow a lowering of water quality for the pollutant or pollutants that prevents the attainment of such uses or the water quality criterion.

(b) For high quality waters that are not designated as an outstanding state resource water, the commissioner shall ensure that no action resulting in a significant lowering of water quality occurs unless an antidegradation demonstration has been completed pursuant to subdivision (3) and the information thus provided is determined by the commissioner pursuant to subdivision (4) to adequately justify the proposed lowering of water quality. In allowing such degradation, the commissioner shall assure water quality adequate to protect existing uses fully. Further, the commissioner shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control. The following provisions apply to high quality waters that are not designated as an outstanding state resource water:

(1) A significant lowering of water quality occurs when any of the following occur:

(A) A new or increased loading of any bioaccumulative chemical of concern (BCC) is proposed from any existing or new facility, either point source or nonpoint source, for which a new permit, permit modification, or other control document would be required, as a result of any activity, including, but not limited to, the following:

(i) Construction of a new regulated facility or modification of an existing regulated facility such that a new or modified permit is required.

(ii) Modification of an existing regulated facility operating under a current permit such that the production capacity of the facility is activities that, based on the information available, is increased.

(iii) Addition of a new source of untreated or pretreated effluent containing or expected to contain any BCC to an existing wastewater treatment works, whether public or private.

(iv) A request for an increased limit in an applicable permit.

(v) Other deliberate activities, which could be reasonably expected to result in an increased loading of any BCC to any waters of the Great Lakes system.

(B) There is a new or increased permit limit for a

substance that is not a BCC, from any existing or new facility, either point source or nonpoint source for which there is a permit or reviewable action, as a result of any activity, and the new or increased permit limit will result in both of the following:

(i) A calculated increase (calculated decrease for dissolved oxygen) in the ambient concentration of the substance outside of the designated mixing zone or volume, where applicable, in the receiving waterbody.

(ii) A lowering of water quality that is greater than a de minimis lowering of water quality. As used in this clause, “de minimis lowering of water quality” occurs if all of the following are satisfied for the substance under consideration and such a determination is consistent with applicable requirements and limitations in section 11.4 of this rule, including appropriate margin of safety allocations:

(AA) The proposed increase in mass discharged is less than ten percent (10%) of the unused loading capacity. The proposed increase in mass discharged shall be determined as follows:

$M_p - M_E =$  Proposed increase in mass discharged

Where:  $M_p$  = Monthly average mass effluent limitation for the parameter in the proposed discharge.

$M_E$  = Monthly average mass effluent limitation for the parameter in the existing permit. If the existing permit does not contain a monthly average mass effluent limitation for the parameter, but does contain a weekly average or daily maximum mass limit, the existing weekly average or daily maximum permit limit shall be converted into a monthly average value to be used in this equation. If the existing permit does not contain a mass limit for the parameter, but does contain a concentration limit, this concentration limit shall be converted into a mass value, using the discharge flow determined under section 11.4(a)(9) of this rule, to be used in this equation. If the existing permit does not contain an effluent limit for the parameter, the actual monthly average mass discharged shall be used in this equation.

(BB) At least ten percent (10%) of the total loading capacity remains unused after the lowering of water quality.

(iii) The following definitions apply throughout this clause:

(AA) “Total loading capacity” means the product of the applicable water quality criterion times the sum of the existing effluent flow and the stream design flow for the waterbody in the area where the water quality is proposed to be lowered, expressed as a mass loading rate.

(BB) “Unused loading capacity” means that amount of the total loading capacity not utilized by point source and nonpoint source discharges. The unused loading capacity is established at the time the request to lower water quality is considered.

(C) Notwithstanding clauses (A) and (B), the following do not constitute a significant lowering of water quality:

(i) Changes in loadings of any substance within the existing capacity and processes, and that are covered by the existing applicable permit. These changes include, but are not limited to, the following:

(AA) Normal operational variability, including, but not limited to, intermittent increased discharges due to wet-weather conditions.

(BB) Changes in intake water pollutants not caused by the discharger.

(CC) Increasing the production hours of the facility, for example, adding a second shift.

(DD) Increasing the rate of production.

(ii) New limits for an existing permitted discharger that are not a result of changes in pollutant loading, and will not allow an increase in pollutant loading, including new limits that are a result of the following:

(AA) New or improved monitoring data.

(BB) New or improved analytical methods.

(CC) New or modified water quality criteria or values.

(DD) New or modified effluent limitations guidelines, pretreatment standards, or control requirements for POTWs.

(iii) The following actions:

(AA) Short term, temporary (weeks or months) lowering of water quality.

(BB) Bypasses that are not prohibited at 40 CFR 122.41(m) or section 8(11) of this rule.

(CC) New or increased discharges of a pollutant, when the facility withdraws intake water containing the pollutant from the same body of water, and the new or increased discharge of the pollutant is due solely to the presence of the pollutant in the intake.

(DD) New or increased discharges of a pollutant that is not a BCC, where there is a contemporaneous enforceable decrease in the actual loading of the pollutant from sources contributing to the same body of water such that there is no net increase in the loading of the pollutant to the same body of water.

(EE) New or increased discharges of a pollutant or pollutant parameter due to response actions pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (as defined in IC 13-11-2-24), as amended, corrective actions pursuant to the Resource Conservation and Recovery Act (RCRA), as amended, or similar federal or state authorities, undertaken to alleviate a release into the environment of hazardous substances, pollutants, or contaminants that may pose an imminent and substantial danger to public health or welfare.

(FF) New or increased discharges of a pollutant or pollutant parameter due to increasing the sewerage area, connection of new sewers and customers, or acceptance of trucked-in wastes (such as septage and holding tank wastes) by a POTW, provided that the increase is within the design flow of the facility, there is no increased loading of BCCs from nondomestic wastes, and no significant change is expected in the characteristics of the wastewater discharged.

(GG) Increased discharges of a pollutant due to implementation of department-approved industrial or municipal controls on wet-weather flows, including combined sewer overflows and industrial storm water, when there is no net increase in the loading of the pollutant to the same body of water.

(HH) New or increased discharges of noncontact cooling water that will not increase the temperature of the receiving waterbody outside of the designated mixing zone, where applicable and will not require numeric WQBELs for toxic substances or WET as determined under section 11.5 of this rule.

(II) Discharges of storm water subject to a general permit under 327 IAC 15-5 (storm water run-off associated with construction activity) and 327 IAC 15-6 (storm water run-off associated with industrial activity).

(JJ) An action that will result in a new or increased discharge of a pollutant or pollutant parameter that is not a BCC, if the new or increased discharge is necessary to accomplish a

reduction in the discharge of another pollutant or pollutant parameter and the commissioner determines the action will result in a net improvement in water quality in the waterbody. The commissioner may approve such an action only if:

(aa) the reduction in the discharge of the reduced pollutant exceeds the increase in the discharge of the new or increased pollutant;

(bb) the new or increased pollutant is determined to be significantly less bioaccumulative and toxic than the decreased pollutant; and

(cc) the applicant demonstrates that all reasonable and cost-effective methods for avoiding the new or increased discharge have been taken.

(KK) An action that will result in a new or increased discharge of a pollutant or pollutant parameter that is not a BCC, if the new or increased discharge is necessary to accomplish a reduction in the release of an air pollutant and the commissioner determines the action will result in a net environmental improvement. The commissioner may approve such an action only if:

(aa) the reduction in the discharge of the air pollutant is necessary to meet a state or federal air quality standard or will substantially reduce human exposure to hazardous air pollutants;

(bb) the reduction in the mass of air pollutant discharged represents a substantial reduction in the total mass released by the applicant; and

(cc) the applicant demonstrates that all reasonable and cost-effective methods for avoiding the new or increased discharge to the waterbody have been taken.

(LL) At the commissioner's discretion, new or increased discharges of a substance used to treat zebra mussels in an intake water pipe or structure.

(iv) As used in this clause, "same body of water" has the meaning set forth in section 11.5(b)(4)(B)(i) of this rule.

(2) The commissioner shall establish the following conditions in the permit applicable to the regulated facility:

(A) The permit shall prohibit the regulated facility from undertaking any deliberate action that would result in a new or increased discharge of a BCC or a new or increased permit limit for a pollutant or pollutant parameter that is not a BCC unless one (1) of the following is completed prior to the commencement of the action:

(i) Information is submitted to the commissioner

demonstrating that the proposed new or increased discharge will not cause a significant lowering of water quality as defined under subdivision (1). Upon review of this information, the commissioner may request additional information or may determine that the proposed increase is a significant lowering of water quality and require the submittal of an antidegradation demonstration.

(ii) An antidegradation demonstration submitted and approved in accordance with subdivisions (3) through (6).

(B) For POTWs:

(i) the permit shall prohibit the POTW from allowing a new or increased discharge of a BCC from:

(AA) an existing industrial user proposing to increase or add a process wastestream; or

(BB) a proposed new industrial user will have a process wastestream; and

the process wastestream contains a BCC at concentrations detectable using the most sensitive analytical method for the BCC contained in 40 CFR 136 or approved by the commissioner;

(ii) unless one (1) of the following is completed prior to commencement of the discharge:

(AA) Information is submitted to the commissioner demonstrating that the proposed new or increased discharge will not cause a significant lowering of water quality as defined under subdivision (1). Upon review of this information, the commissioner may request additional information or may determine that the proposed increase is a significant lowering of water quality and require the submittal of an antidegradation demonstration.

(BB) An antidegradation demonstration is submitted and approved in accordance with subdivisions (3) through (6).

(C) Whether or not the permit contains a limitation for a BCC, the permit shall require monitoring for any BCC known or believed to be present in the permitted discharge, from any point or nonpoint source over which the permittee has control. If there is an increase in loading of a BCC, above normal variability and attributable to a deliberate action, the discharger shall notify the commissioner of the increase unless either:

(i) the discharger has submitted the information required under clause (A)(i) for the increase; or

(ii) an antidegradation demonstration for the increase has been approved under subdivision (5).

If the increase is determined to be a significant lowering of water quality, as defined under subdivision (1), the commissioner shall require reduction or elimination of the increase.

(D) Fact sheets prepared pursuant to 40 CFR 124.8 and 40 CFR 124.56 or 327 IAC 5-3-8 shall reflect any conditions developed under clause (A) or (B) and included in a permit.

(3) Any existing or proposed discharger seeking to significantly lower water quality in a high quality water must first submit an antidegradation demonstration for consideration by the commissioner. The antidegradation demonstration shall include the following:

(A) An identification of measures available to the existing or proposed discharger to minimize or prevent the proposed lowering, including, but not limited to, the following:

(i) For BCCs, identify any cost-effective pollution prevention alternatives and techniques that are available to the discharger that would eliminate or significantly reduce the extent to which the increased loading results in a significant lowering of water quality. As used in this item, "pollution prevention" has the meaning set forth in the federal Pollution Prevention Act of 1990 (42 USCA 13101 to 42 USCA 13109).

(ii) For all substances, the discharger shall identify alternative or enhanced treatment techniques that are available to the discharger that would eliminate or significantly reduce the extent to which the increased loading results in a significant lowering of water quality, the pollution reduction benefits associated with such techniques, and their costs relative to the cost of treatment necessary to achieve applicable effluent limitations. This submittal shall include an evaluation of the feasibility and costs of connecting to an existing publicly (or privately) owned treatment works. Pollution prevention measures may be identified as part of this process. As used in this item, "pollution prevention" means changes in production process technologies, materials, processes, operations, or procedures to reduce or eliminate the source of the pollutant.

(B) For all new or increased discharges, an identification of the positive and negative social or economic development and the benefits to the area in which the waters are located that will occur if the significant lowering of water quality is allowed. This includes, but is not limited to, the following:

(i) An evaluation of the baseline economic condition, including, but not limited to, the following:

(AA) The unemployment rate in the area.

(BB) The population in the area.

(CC) The average household income relative to state and national averages.

(DD) The percentage of the population living

- below the poverty level.
- (ii) Information on the anticipated net positive impacts attributable to the activity that will result in the new or increased discharge, including, but not limited to, the following:
- (AA) The increase in employment, or avoidance of a reduction in employment at the facility.
  - (BB) The reduction in the local unemployment rate attributable to the facility.
  - (CC) The total annual payroll of nonofficers for the new or increased employment, and the average annual wage for the new, nonofficer employees. In lieu of this information, the applicant may provide other information that quantifies the extent of the economic benefit to be provided to the area.
  - (DD) The increased tax revenues.
  - (EE) The increase in production level.
  - (FF) The increase in efficiency.
  - (GG) The extent to which an environmental or public health problem is corrected.
  - (HH) Industrial, commercial, or residential growth in the community.
  - (II) Other social or economic benefits to the community.
- (iii) Information on the potential negative economic or social impacts to the community that may occur as a result of the activity that will result in the new or increased discharge, such as making the receiving water less attractive for recreation or causing a loss in tourism dollars.
- (C) For all new or increased discharges, an identification of the potential adverse environmental or public health impacts attributable to the proposed significant lowering in water quality, including, but not limited to, the following:
- (i) An identification of the potential impact of the significant lowering on the aquatic community structure and function, including important commercial or recreational sport fish species, and species that are unique or rare within the locality or the state (such as a mussel bed).
  - (ii) An identification of endangered or threatened species potentially impacted by the significant lowering.
  - (iii) The increased risk to human health due to the new or increased concentration of carcinogens or bioaccumulative chemicals of concern.
  - (iv) An identification of characteristics of the receiving waterbody that are unique or rare within the locality or state potentially impacted by the significant lowering.
  - (v) The location of the nearest downstream public

water supply intake, if any.

- (vi) An identification of all government or privately sponsored conservation projects that have specifically targeted improved water quality or enhanced recreational opportunities on the proposed receiving waterbody in the area of the new or increased discharge.
  - (vii) An identification of all other environmental permits the applicant has applied or will apply for that are attributable to the activity (such as a permit from the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act).
- (D) In lieu of the information required by clauses (A) through (C), dischargers proposing any of the actions listed in item (i) may submit the information required under item (ii) as follows:
- (i) This clause is applicable to any of the following actions:
    - (AA) A response action pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (as defined in IC 13-11-2-24), as amended.
    - (BB) A corrective action pursuant to the Resource Conservation and Recovery Act (RCRA), as amended.
    - (CC) An action pursuant to similar federal or state authorities, including, but not limited to, the following:
      - (aa) An underground storage tank (UST) corrective action under IC 13-23-13.
      - (bb) A remediation of petroleum releases under IC 13-24-1.
      - (cc) A voluntary remediation under IC 13-25-5.
      - (dd) An abatement or correction of any polluted condition under IC 13-18-7.
  - (ii) The discharger may submit information to the commissioner that demonstrates that the action minimizes the proposed lowering of water quality, including, but not limited to, the following:
    - (AA) For BCCs, the action will utilize the most cost effective pollution prevention techniques available. As used in this subitem, "pollution prevention" has the meaning set forth in the federal Pollution Prevention Act of 1990 (42 USCA 13101 to 42 USCA 13109).
    - (BB) The action will utilize the most cost-effective treatment techniques available.
- (4) Upon receipt of an antidegradation demonstration, the commissioner shall provide notice, request comment, and, if requested, schedule and hold a public meeting on the application in accordance with section 11.2 of this rule.
- (5) Once the commissioner determines that the infor-

mation provided by the discharger proposing a new or increased discharge is administratively complete, the commissioner shall make an antidegradation decision in accordance with the following:

(A) The commissioner shall deny the request to lower water quality if cost-effective measures necessary to prevent the proposed lowering are reasonably available or the action that would cause the lowering would not support important social and economic development in the area.

(B) If the discharger has demonstrated that cost-effective measures necessary to prevent the proposed lowering are not reasonably available, the commissioner may allow all or part of the proposed lowering to the extent that:

- (i) cost-effective measures necessary to reduce the proposed lowering are reasonably available; and
- (ii) the action that will cause the lowering will support important social and economic development in the area.

(C) In no event may the decision reached under this subsection allow water quality to be lowered below the minimum level required to fully support existing and designated uses.

(6) When the commissioner proposes an antidegradation decision, the tentative decision shall be summarized in the public notice form and incorporated into the draft permit and the fact sheet of the draft permit that is made available for public comment under 327 IAC 5-3-9. A final antidegradation decision shall be incorporated into the final permit and the fact sheet of a final NPDES permit.

(c) For waters designated as an outstanding national resource under 327 IAC 2-1.5-4, the commissioner shall ensure, through the application of appropriate controls on pollutant sources, that water quality is maintained and protected, except that a short term, temporary (weeks or months) lowering of water quality may be permitted by the commissioner. (*Water Pollution Control Board; 327 IAC 5-2-11.3; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1436; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378*)

**327 IAC 5-2-11.4 Great Lakes system dischargers total maximum daily loads; wasteload allocations for point sources; load allocations for nonpoint sources; preliminary wasteload allocations**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4-7; IC 13-18-4-8

Sec. 11.4. (a) This subsection applies to the establish-

ment of total maximum daily loads (TMDLs) for all pollutants and pollutant parameters in the Great Lakes system. Where specified, the following conditions also apply to wasteload allocations (WLAs) calculated in the absence of TMDLs and to preliminary WLAs:

(1) At a minimum, TMDLs shall be established in accordance with the listing and priority setting process established in Section 303(d) of the Clean Water Act (CWA) and at 40 CFR 130.7. Where water quality standards cannot be attained immediately, TMDLs must reflect reasonable assurances that water quality standards will be attained in a reasonable period of time. TMDLs may be based on attaining water quality standards over a period of time, with specific controls on individual sources being implemented in stages. Determining the reasonable period of time in which water quality standards will be met is a case-specific determination considering a number of factors, including, but not limited to, the following:

- (A) Receiving water characteristics.
- (B) Persistence, behavior, and ubiquity of pollutants of concern.
- (C) Type of remediation activities necessary.
- (D) Available regulatory and nonregulatory controls.
- (E) Requirements for attainment of water quality standards.

(2) An assessment and remediation plan that the commissioner has certified as meeting the requirements of this section pertaining to TMDLs and public participation requirements applicable to TMDLs, and that has been approved by EPA as meeting those requirements under 40 CFR 130.6, may be used in lieu of a TMDL for purposes of this section. Assessment and remediation plans under this section may include, but are not limited to, Lakewide Management Plans, Remedial Action Plans, and State Water Quality Management Plans. Also, any part of an assessment and remediation plan that also satisfies one (1) or more requirements under Section 303(d) of the CWA or implementing regulations may be incorporated by reference into a TMDL as appropriate. Assessment and remediation plans under this section shall be tailored to the level of detail and magnitude for the watershed and pollutant being assessed.

(3) TMDLs, WLAs calculated in the absence of a TMDL, and preliminary WLAs must ensure attainment of applicable water quality standards including all numeric and narrative water quality criteria set forth in 327 IAC 2-1.5-8, and Tier I criteria and Tier II values established under 327 IAC 2-1.5-11 through 327 IAC 2-1.5-16.

(4) If a discharge contains one (1) or more substances for which a TMDL, WLA calculated in the absence of

a TMDL, or preliminary WLA was based on a human cancer criterion (HCC), human cancer value (HCV), human noncancer criterion (HNC), or human noncancer value (HNV), human health shall be protected from the potential adverse additive effects of mixtures of substances in an effluent in accordance with the following procedures:

(A) If an effluent for a particular discharger contains more than one (1) substance for which an HCC exists or for which an HCC or an HCV can be calculated, the additivity of the mixture of carcinogens shall be addressed as follows:

(i) Except as provided in item (ii), the TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA based on an HCC or HCV shall be established to protect against additive effects possibly associated with simultaneous multiple chemical human exposure to carcinogens such that the following condition is met:

$$\sum \frac{C_i}{WLA_i} \leq 1; \quad \text{For } i = 1 \text{ to } n$$

Where: C = The adjusted TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA concentration of each separate carcinogen that shall be used in the calculation of reasonable potential in section 11.5 of this rule and WQBELs in section 11.6 of this rule.

WLA = The TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA concentration based on the HCC or HCV for each respective carcinogen.

n = Number of WLAs based on an HCC or HCV.

(ii) Notwithstanding item (i):

(AA) the commissioner may consider, upon submission of the discharger, the use of an alternate, scientifically-based, procedure for ensuring the aggregate risk of the mixture of carcinogens remains below one (1) in one hundred thousand (100,000); or

(BB) if information is available to the commissioner demonstrating that available scientific information does not support the assumption of additivity, the TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA shall not be adjusted for each such substance.

(B) If an effluent for a particular discharger contains more than one (1) substance for which a HNC exists or for which a HNC or HNV can be calculated, the

additivity of the mixture of substances shall be addressed as follows:

(i) The incremental adverse effect of each substance shall be assumed to not be additive except as provided in item (ii).

(ii) If scientific information available to the commissioner demonstrates that the adverse effects of the components are additive, the TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA for each additive noncarcinogenic substance shall be established to protect against additive or effects possibly associated with simultaneous multiple chemical human exposure such that the following condition is met:

$$\sum \frac{N_i}{WLA_i} \leq 1; \quad \text{For } i = 1 \text{ to } n$$

Where: N = The adjusted TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA concentration of each separate substance that shall be used in the calculation of reasonable potential in section 11.5 of this rule and WQBELs in section 11.6 of this rule.

WLA = The TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA concentration based on the HNC or HNV for each respective substance.

n = Number of WLAs based on an HNC or HNV.

(C) Notwithstanding the requirements of clauses (A) and (B), the toxicity equivalency factors (TEFs) and bioaccumulation equivalency factors (BEFs) for the chlorinated dibenzo-p-dioxins (CDDs) and chlorinated dibenzofurans (CDFs) shall be accounted for as follows:

(i) The TEFs and BEFs in Table 11.4-1 in item (iv) shall be used when calculating a 2,3,7,8-TCDD toxicity equivalence concentration in effluent to be used when implementing both human health noncancer and cancer criteria. The chemical concentration of each CDDs and CDFs in effluent shall be converted to a 2,3,7,8-TCDD toxicity equivalence concentration in effluent by:

(AA) multiplying the chemical concentration of each CDDs and CDFs in the effluent by the appropriate TEF in Table 11.4-1 in item (iv);

(BB) multiplying each product from subitem (AA) by the BEF for each CDDs and CDFs in

Table 11.4-1 in item (iv); and  
(CC) adding all final products from subitem  
(BB).

(ii) The equation for calculating the 2,3,7,8-TCDD toxicity equivalence concentration in effluent is:

$$(\text{TEC})_{\text{tcdd}} = \sum (\text{C})_x (\text{TEF})_x (\text{BEF})_x$$

Where:  $(\text{TEC})_{\text{tcdd}}$  = 2,3,7,8-TCDD toxicity equivalence concentration in effluent.

$(\text{C})_x$  = Concentration of total chemical x in effluent.

$(\text{TEF})_x$  = TCDD toxicity equivalency factor for x.

$(\text{BEF})_x$  = TCDD bioaccumulation equivalency factor for x.

(iii) The 2,3,7,8-TCDD toxicity equivalence concentration in effluent shall be used when developing TMDLs, wasteload allocations in the absence of a TMDL, or preliminary wasteload allocations under this section.

(iv) The following values shall be used for TEFs and BEFs for CDDs and CDFs:

Table 11.4-1

Toxicity Equivalency Factors (TEF) and  
Bioaccumulation Equivalency Factors (BEF)  
for CDDs and CDFs

Congener	TEF	BEF
2,3,7,8-TCDD	1.0	1.0
1,2,3,7,8-PeCDD	0.5	0.9
1,2,3,4,7,8-HxCDD	0.1	0.3
1,2,3,6,7,8-HxCDD	0.1	0.1
1,2,3,7,8,9-HxCDD	0.1	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.05
OCDD	0.001	0.01
2,3,7,8-TCDF	0.1	0.8
1,2,3,7,8-PeCDF	0.05	0.2
2,3,4,7,8-PeCDF	0.5	1.6
1,2,3,4,7,8-HxCDF	0.1	0.08
1,2,3,6,7,8-HxCDF	0.1	0.2
2,3,4,6,7,8-HxCDF	0.1	0.7
1,2,3,7,8,9-HxCDF	0.1	0.6
1,2,3,4,6,7,8-HpCDF	0.01	0.01
1,2,3,4,7,8,9-HpCDF	0.01	0.4
OCDF	0.001	0.02

(5) TMDLs shall include WLAs for point sources and load allocations (LAs) for nonpoint sources, including

natural background, such that the sum of these allocations is not greater than the loading capacity of the water for the pollutant addressed by the TMDL, minus the sum of a specified margin of safety (MOS) and any capacity reserved for future growth. The components of the TMDL are as follows:

(A) Nonpoint source LAs that shall be based on any of the following:

(i) Existing pollutant loadings if changes in loadings are not reasonably anticipated to occur.

(ii) Increases in pollutant loadings that are reasonably anticipated to occur.

(iii) Anticipated decreases in pollutant loadings if such decreased loadings are technically feasible and are reasonably anticipated to occur within a reasonable time period as a result of implementation of BMPs or other load reduction measures. In determining whether anticipated decreases in pollutant loadings are technically feasible and can reasonably be expected to occur within a reasonable period of time, technical and institutional factors shall be considered. These decisions are case-specific and should reflect the particular TMDL under consideration.

(iv) Where appropriate and where sufficient data are available, contributions to the water column from sediments inside and outside of any applicable mixing zones.

(v) Where appropriate and where sufficient data are available, nonpoint source discharges resulting from wet weather events.

Monitoring data for these LAs shall be collected and analyzed in order to validate the TMDL's assumptions, to verify anticipated load reductions, to evaluate the effectiveness of controls being used to implement the TMDL, and to revise the WLAs and LAs as necessary to ensure that water quality criteria shall be achieved within the time period established in the TMDL.

(B) Each TMDL shall include a margin of safety (MOS) sufficient to account for technical uncertainties in establishing the TMDL and shall describe the manner in which the MOS is determined and incorporated into the TMDL. The MOS may be provided by leaving a portion of the loading capacity unallocated or by using conservative modeling assumptions to establish WLAs and LAs. If a portion of the loading capacity is left unallocated to provide a MOS, the amount left unallocated shall be described. If conservative modeling assumptions are relied on to provide a MOS, the specific assumptions providing the MOS shall be identified.

(C) TMDLs may include reserved allocations of

loading capacity to accommodate future growth and additional sources. Where such reserved allocations are not included in a TMDL, any increased loadings of the pollutant for which the TMDL was developed that are due to a new or expanded discharge shall not be allowed unless the TMDL is revised in accordance with these procedures to include an allocation for the new or expanded discharge.

(D) The sum of the WLAs is the portion of the loading capacity not assigned to nonpoint sources including background, or to an MOS, or reserved for future growth. Where appropriate and where sufficient data are available, WLAs shall also be developed for point source discharges resulting from wet weather events. Upon reissuance, NPDES permits for these point sources must include effluent limitations consistent with WLAs in EPA-approved or EPA-established TMDLs.

(6) If separate TMDLs are prepared for different segments of the same watershed, and the separate TMDLs each include WLAs for the same pollutant for one (1) or more of the same point sources, then WQBELs for that pollutant for the point sources shall be consistent with the most stringent of those WLAs in order to ensure attainment of all applicable water quality standards.

(7) TMDLs shall be sufficiently stringent so as to prevent accumulation of the pollutant of concern in sediments to levels injurious to designated or existing uses, human health, wildlife, and aquatic life.

(8) The representative background concentration of pollutants shall be established in accordance with this section to develop TMDLs, WLAs calculated in the absence of a TMDL, or preliminary WLAs. Background loadings may be accounted for in a TMDL through an allocation to a single background category or through individual allocations to the various background sources as follows:

(A) As used in this subsection "background" represents all loadings resulting from the following:

(i) Flow from upstream waters into the specified watershed, waterbody, or waterbody segment for which a TMDL, WLA in the absence of a TMDL, or preliminary WLA for the purpose of determining the need for a WQBEL is being developed.

(ii) Atmospheric deposition or sediment release or resuspension.

(iii) Chemical reactions occurring within the watershed, waterbody, or waterbody segment.

(B) When determining what available data are acceptable for use in calculating background, the commissioner shall use best professional judgment, including consideration of the sampling location and

the reliability of the data through comparison to reported analytical detection levels. Pollutant degradation and transport information may be considered when utilizing pollutant loading data. Where limited or no acceptable data exist, the commissioner may require the permittee to supply the necessary data. Best professional judgment shall be used to select the one (1) data set that most accurately reflects or estimates background concentrations when data in more than one (1) of the following data sets or categories exist:

(i) Acceptable available water column data.

(ii) Water column concentrations estimated through use of acceptable available caged or resident fish tissue data.

(iii) Water column concentrations estimated through use of acceptable available or projected pollutant loading data.

(C) The representative background concentration for a substance in the specified watershed, waterbody, or waterbody segment shall be established as follows:

(i) If all the values in the data set selected in clause (B) are at or above the limit of detection (LOD), then the background concentration is the geometric mean of that data set.

(ii) If the data set consists of values above and below the LOD, the following procedure shall be used to determine the representative background concentration:

(AA) Each value in the data set with a value less than the LOD (nondetect) shall be assigned the value (V). The geometric mean of this adjusted data set is the representative background concentration. The value (V) is determined as follows:

$$V = (\text{LOD}) \times \left( 1 - \frac{\text{Number of nondetects}}{\text{Total number of values}} \right)$$

(BB) If information is available that indicates an alternate methodology for evaluating the data set would result in a background concentration more representative of actual conditions, this alternative methodology may be used in place of the methodology contained in subitem (AA) upon approval of the commissioner.

(iii) When all of the acceptable available data in a data set or category, such as water column, caged or resident fish tissue, or pollutant loading data, are below the LOD for a substance, and the most sensitive approved analytical method available for that substance was used, then all the data for that pollutant in that data set shall be assumed to be zero (0).

- (iv) Notwithstanding items (i) through (iii), the representative background concentration of whole effluent toxicity (WET) shall be assumed to be zero (0) unless data are available that indicates that the discharge of the WET and any background WET are additive.
- (9) The effluent flow used to develop TMDLs, WLAs calculated in the absence of a TMDL, or preliminary WLAs shall be determined as follows:
- (A) For municipal, semipublic, and other sanitary or domestic wastewater discharges, the average design flow of the treatment facility shall be used.
  - (B) For industrial dischargers, the highest monthly average flow from the previous two (2) years of monitoring shall be used.
  - (C) Notwithstanding clauses (A) and (B), an alternate effluent flow value may be used, upon approval by the commissioner, if the discharger provides flow data that supports the alternate value (such as when a TMDL or WLA is calculated for wet weather conditions as provided in section 11.6(g)(4) of this rule). This flow data shall be included with the application for a new permit, a renewal of an existing permit, or with a request for modification of an existing permit, or when requested by the commissioner.
  - (D) TMDLs, WLAs calculated in the absence of a TMDL, or preliminary WLAs shall indicate the point source effluent flows used in the analyses.
- (10) The portion of the receiving waterbody allocated for mixing for TMDLs, WLAs calculated in the absence of a TMDL, or preliminary WLAs shall be determined in accordance with subsection (b).
- (11) TMDLs, WLAs in the absence of a TMDL, and preliminary WLAs shall be based on the assumption that a pollutant does not degrade. However, the commissioner may take into account degradation of the pollutant if each of the following conditions are met:
- (A) Scientifically valid field studies or other relevant information demonstrate that degradation of the pollutant is expected to occur under the full range of environmental conditions expected to be encountered.
  - (B) Scientifically valid field studies or other relevant information address other factors that affect the level of pollutants in the water column, including, but not limited to, the following:
    - (i) Resuspension of sediments.
    - (ii) Chemical speciation.
    - (iii) Biological and chemical transformation.
  - (C) Notwithstanding clauses (A) and (B), TMDLs, WLAs in the absence of a TMDL, and preliminary WLAs conducted for chlorine and whole effluent toxicity shall be based on the assumption that the parameter does degrade unless data for the waterbody are available indicating otherwise.
- (12) As used in this section, "loading capacity" refers to the greatest amount of loading that a water can receive without violating water quality standards. The loading capacity is initially calculated at the farthest downstream location in the watershed drainage basin. The maximum allowable loading consistent with the attainment of each applicable numeric criterion or value for a given pollutant is determined by multiplying the applicable criterion or value by the flow at the farthest downstream location in the tributary basin at the design flow condition described under subsection (b) and by using appropriate conversion factors. This loading is then compared to the loadings at sites within the basin to assure that applicable numeric criteria or values for a given pollutant are not exceeded at all applicable sites. The lowest load is then selected as the loading capacity.
- (13) The ambient water quality characteristics used to develop TMDLs, WLAs calculated in the absence of a TMDL, or preliminary WLAs shall be determined as follows:
- (A) For ammonia (as N), metals dependent on hardness, and pentachlorophenol, the appropriate water quality characteristics shall be obtained at a location downstream of the point of discharge, or for Lake Michigan, outside the applicable mixing zone and shall be determined as follows:
    - (i) For ammonia (as N), the seventy-fifth percentile of the pH and temperature. If a seasonal TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA is developed for ammonia, the pH and temperature data shall be obtained from the appropriate seasonal period.
    - (ii) For metals dependent on hardness, the fiftieth percentile of the hardness.
    - (iii) For pentachlorophenol, the fiftieth percentile of the temperature.
  - (B) If any of the data required under clause (A) are not available for the waterbody, the data shall either be obtained from similar nearby streams, or the permittee will be required to obtain the necessary data. For discharges to Lake Michigan, data from Lake Michigan shall be required.
  - (C) The use of the data required in clause (A) is intended to determine values of those water quality characteristics that are representative of those characteristics at design conditions. If it is demonstrated that an alternate method of determining these characteristics for a specific receiving waterbody would result in values more representative of the character

istics at design conditions, then this alternate method may be used to determine the water quality characteristics.

(b) The following requirements shall be applied in establishing the portion of the receiving waterbody allocated for mixing for TMDLs, WLAs in the absence of TMDLs, and preliminary WLAs:

(1) The following procedures shall be used to establish the portion of the receiving waterbody allocated for mixing for TMDLs, WLAs in the absence of TMDLs, and preliminary WLAs for a BCC:

(A) For purposes of this subsection, new and existing discharges are determined as follows:

(i) New discharges are defined as:

(AA) discharges from new Great Lakes dischargers; or

(BB) new or expanded discharges from an existing Great Lakes discharger.

(ii) Existing discharges are defined as all discharges of BCCs not included in item (i).

(B) There shall be no mixing zone available for a new discharge of a BCC to the Great Lakes system. WLAs established through TMDLs, WLAs in the absence of TMDLs, and preliminary WLAs for a new discharge of a BCC shall be set equal to the most stringent applicable water quality criteria or values for the BCC.

(C) A mixing zone may be allocated for a BCC for an existing discharge to the Great Lakes system pursuant to subdivisions (2) and (3) until January 1, 2004, except for a discharge into the open waters of Lake Michigan. WLAs established through TMDLs, WLAs established in the absence of TMDLs, and preliminary WLAs for all discharges, both new and existing, into the open waters of Lake Michigan shall be set equal to the most stringent applicable water quality criterion or value for the BCC.

(D) Except as provided in clauses (E) and (F), NPDES permits shall not authorize mixing zones for existing discharges of a BCC to the Great Lakes system after January 1, 2004. After January 1, 2004, WLAs established through TMDLs, WLAs established in the absence of TMDLs, and preliminary WLAs for all discharges of a BCC to the Great Lakes system shall be set equal to the most stringent applicable water quality criterion or value for the BCC.

(E) The commissioner may grant mixing zones for any existing discharge of a BCC to the Great Lakes system beyond the date specified in clause (D) where it can be demonstrated, on a case-by-case basis, that failure to grant a mixing zone would preclude water conservation measures that would lead to the overall

load reduction of the BCC, even though higher concentrations of the BCC occur in the effluent. Such mixing zones must also be consistent with subdivisions (2) and (3).

(F) The commissioner may grant mixing zones, consistent with subdivisions (2) and (3), beyond the date specified in clause (D) for any existing discharge of a BCC to the Great Lakes system upon the request of a discharger subject to the following limited circumstances:

(i) The commissioner determines the following:

(AA) The discharger is in compliance with and will continue to implement all applicable technology-based treatment and pretreatment requirements of Sections 301, 302, 304, 306, 307, 401, and 402 of the CWA, and is in compliance with its existing NPDES water quality-based effluent limitations, including those based on a mixing zone.

(BB) The discharger has reduced and will continue to reduce the loading of the BCC for which a mixing zone is requested to the maximum extent possible.

(ii) In making the determination in item (i), the commissioner shall consider the following information submitted by the discharger:

(AA) The availability, feasibility, cost effectiveness, and environmental benefits of additional controls or pollution prevention measures for reducing and ultimately eliminating the BCC for that discharger, including those used by similar dischargers. As used in this item, "pollution prevention" has the meaning set forth in the federal Pollution Prevention Act of 1990 (42 USCA 13101 to 42 USCA 13109).

(BB) Whether the discharger or affected communities will suffer unreasonable economic effects if the mixing zone is eliminated.

(CC) The extent to which the discharger will implement an ambient monitoring plan to ensure compliance with water quality criteria at the edge of any authorized mixing zone or to ensure consistency with any applicable TMDL or such other strategy consistent with this section.

(DD) Other information the commissioner deems appropriate.

(iii) Any exceptions to the mixing zone elimination provision for an existing discharge of a BCC granted under this clause shall comply with the following:

(AA) Not result in any less stringent limitations than those existing upon or after the effective date of this rule.

- (BB) Not likely jeopardize the continued existence of any endangered or threatened species listed under Section 4 of the Endangered Species Act (ESA) or result in the destruction or adverse modification of such species' critical habitat.
- (CC) Be limited to one (1) permit term unless the commissioner makes a new determination in accordance with this subdivision for each successive permit application in which a mixing zone for the BCC is sought.
- (DD) Reflect all information relevant to the size of the mixing zone considered under item (ii).
- (EE) Protect all designated and existing uses of the receiving water.
- (FF) Meet all applicable aquatic life, wildlife, and human health criteria and values at the edge of the mixing zone and, as appropriate, within the mixing zone or be consistent with any appropriate TMDL or such other strategy consistent with this section.
- (GG) Ensure the discharger has developed and conducted a pollutant minimization program for the BCC if required to do so under section 11.6 of this rule.
- (HH) Ensure that alternative means for reducing BCCs elsewhere in the watershed are evaluated.
- (G) For each draft NPDES permit that would allow a mixing zone for one (1) or more BCCs after January 1, 2004, the fact sheet or statement of basis for the draft permit, shall:
- (i) specify the mixing provisions used in calculating the permit limits; and
  - (ii) identify each BCC for which a mixing zone is proposed.
- (2) The following addresses conditions for deriving TMDLs, WLAs in the absence of TMDLs, and preliminary WLAs for open waters of Lake Michigan, inland lakes, and other waters of the Great Lakes system with no appreciable flow relative to their volumes:
- (A) For discharges into the open waters of Lake Michigan, the following requirements apply:
- (i) To prevent acute toxicity to aquatic life, WLAs established in a TMDL, WLAs in the absence of a TMDL, and preliminary WLAs shall be determined as follows:
    - (AA) For allocations based on acute aquatic life criteria or values, the CMC shall not be exceeded outside the zone of initial dilution and the final acute value (FAV) shall not be exceeded in the undiluted discharge, unless a mixing zone demonstration is conducted and approved under subdivision (4), in which case the CMC shall be met outside the alternative mixing zone.
    - (BB) For allocations implementing an acute whole effluent toxicity (WET) criterion,  $1.0 \text{ TU}_a$  shall not be exceeded in the undiluted discharge, unless a mixing zone demonstration is conducted and approved pursuant to subdivision (4), in which case  $0.3 \text{ TU}_a$  shall be met outside the alternative mixing zone.
  - (ii) To prevent chronic toxicity to aquatic life, human health, and wildlife, WLAs established in a TMDL, WLAs in the absence of a TMDL, and preliminary WLAs shall be determined as follows:
    - (AA) For allocations based on chronic criteria or values (CCC or SCV; HNC or HNV; HCC or HCV; or WC or WV), the chronic criteria or value shall not be exceeded in the undiluted discharge unless an alternative mixing zone is demonstrated as appropriate in a mixing zone demonstration conducted pursuant to subdivision (4).
    - (BB) For allocations implementing a chronic effluent toxicity (WET) criterion,  $1.0 \text{ TU}_c$  shall not be exceeded in the undiluted discharge unless an alternative mixing zone is demonstrated as appropriate in a mixing zone demonstration conducted pursuant to subdivision (4), in which case  $1.0 \text{ TU}_c$  shall be met outside the discharge-induced mixing zone.
  - (iii) WLAs established in a TMDL, WLAs in the absence of a TMDL, and preliminary WLAs based on the criterion for sulfates, total dissolved solids fluorides, or dissolved iron under 327 IAC 2-1.5-8(j) shall ensure that the criteria not be exceeded in the undiluted discharge unless an alternative mixing zone is demonstrated as appropriate in a mixing zone demonstration conducted pursuant to subdivision (4).
  - (iv) If mixing zones from two (2) or more proximate sources interact or overlap, the combined effect must be evaluated to ensure that applicable criteria and values will be met in the area where any applicable mixing zones overlap.
  - (v) In no case shall a mixing zone be granted that exceeds the area where discharge-induced mixing occurs.
- (B) For discharges into inland lakes and other waters of the Great Lakes system with no appreciable flow relative to their volumes (other than the open waters of Lake Michigan), no mixing zone will be allowed and water quality criteria will apply to the undiluted discharge.
- (C) Appropriate mixing zone assumptions to be used in calculating load allocations for nonpoint sources

shall be determined on a case-by-case basis.

(D) In no case shall a mixing zone be granted that would likely jeopardize the continued existence of any endangered or threatened species listed under Section 4 of the ESA or result in the destruction or adverse modification of such species' critical habitat.

(3) The following describes conditions for deriving TMDLs, WLAs in the absence of TMDLs, and preliminary WLAs for tributaries of the Great Lakes system that exhibit appreciable flows relative to their volumes:

(A) The following stream design flows shall be used unless data exist to demonstrate that an alternative stream design flow is appropriate for stream-specific and pollutant-specific conditions:

(i) For purposes of calculating a TMDL, WLAs in the absence of a TMDL, or preliminary WLAs, using a steady-state model, the stream design flows shall be as follows:

(AA) For an acute aquatic life criterion or value or an acute aquatic WET criterion, when a high rate diffuser is used, the one (1) day, ten (10) year stream design flow ( $Q_{1,10}$ ).

(BB) For a chronic aquatic life criterion or value or a chronic aquatic WET criterion, the seven (7) day, ten (10) year stream design flow ( $Q_{7,10}$ ).

(CC) For a drinking water human health criterion or value, the harmonic mean flow at the point of drinking water intake.

(DD) For a nondrinking water human health criterion or value, the harmonic mean flow at the point of discharge.

(EE) For a wildlife criterion or value, the ninety (90) day, ten (10) year flow ( $Q_{90,10}$ ).

(ii) TMDLs, WLAs in the absence of TMDLs, and preliminary WLAs calculated using dynamic modelling do not need to incorporate the stream design flows specified in item (i).

(iii) TMDLs, WLAs in the absence of TMDLs, and preliminary WLAs calculated for intermittent or controlled discharges may use alternate stream design flows if these alternate design flows will ensure compliance with water quality criteria.

(B) To prevent acute toxicity, WLAs and LAs established in a TMDL, WLAs in the absence of a TMDL, and preliminary WLAs shall be determined as follows:

(i) For allocations based on acute aquatic life criteria or values, the final acute value (FAV) shall not be exceeded in the undiluted discharge unless the discharger utilizes a submerged, high rate diffuser outfall structure (or the functional equivalent) that provides turbulent initial mixing and minimizes organism exposure time; and a mixing

zone demonstration is conducted and approved under subdivision (4), in which case the CMC shall be met outside the discharge-induced mixing zone.

(ii) For allocations implementing an acute whole effluent toxicity (WET) criterion,  $1.0 \text{ TU}_a$  shall not be exceeded in the undiluted discharge unless the discharger utilizes a submerged, high rate diffuser outfall structure (or the functional equivalent) that provides turbulent initial mixing and minimizes organism exposure time; and a mixing zone demonstration is conducted and approved under subdivision (4), in which case  $0.3 \text{ TU}_a$  shall be met outside the discharge-induced mixing zone.

(C) To protect aquatic life, wildlife, and human health from chronic effects, including chronic whole effluent toxicity, WLAs and LAs established in a TMDL, WLAs in the absence of a TMDL, and preliminary WLAs shall be calculated using a dilution fraction no greater than twenty-five percent (25%) of the stream design flow unless a mixing zone demonstration under subdivision (4) is conducted and approved.

(D) If mixing zones from two (2) or more proximate sources interact or overlap, the combined effect must be evaluated to ensure that applicable criteria and values will be met in the area where any applicable mixing zones overlap.

(E) In no case shall a permitting authority grant a mixing zone that would likely jeopardize the continued existence of any endangered or threatened species listed under Section 4 of the ESA or result in the destruction or adverse modification of such species' critical habitat.

(4) An alternate mixing zone that is allowed under subdivision (2) or (3) may be granted upon the request of the discharger subject to the following requirements:

(A) Any discharger seeking a mixing zone other than that specified by subdivision (2) or (3), shall submit an application for a mixing zone demonstration for consideration by the commissioner. The alternate mixing zone application must do the following:

(i) Document the characteristics and location of the outfall structure, including whether technologically-enhanced mixing will be utilized.

(ii) Document the amount of dilution occurring at the boundaries of the proposed mixing zone and the size, shape, and location of the area of mixing, including the manner in which diffusion and dispersion occur.

(iii) For sources discharging to the open waters of Lake Michigan, define the location at which discharge-induced mixing ceases.

(iv) Document the physical, including substrate character and geomorphology, chemical, and biological characteristics of the receiving waterbody, including whether the receiving waterbody supports indigenous, endemic, or naturally occurring species.

(v) Document the physical, chemical, and biological characteristics of the effluent.

(vi) Document the synergistic effects of overlapping mixing zones or the aggregate effects of adjacent mixing zones.

(vii) Show whether organisms would be attracted to the area of mixing as a result of the effluent character.

(B) The commissioner may grant the alternate mixing zone if the discharger demonstrates the following:

(i) The mixing zone would not interfere with or block passage of fish or aquatic life.

(ii) The level of the pollutant permitted in the waterbody would not likely jeopardize the continued existence of any endangered or threatened species listed under Section 4 of the ESA or result in the destruction or adverse modification of such species' critical habitat.

(iii) The mixing zone would not extend to drinking water intakes.

(iv) The mixing zone would not impair or otherwise interfere with the designated or existing uses of the receiving water or downstream waters.

(v) The mixing zone would not promote undesirable aquatic life or result in a dominance of nuisance species.

(vi) By allowing the additional mixing:

(AA) substances will not settle to form objectionable deposits;

(BB) floating debris, oil, scum, and other matter in concentrations that form nuisances will not be produced; and

(CC) objectionable color, odor, taste, or turbidity will not be produced.

(C) In no case shall a mixing zone for a discharge into the open waters of Lake Michigan be granted that exceeds the area where discharge-induced mixing occurs.

(D) Upon receipt of an application for an alternate mixing zone demonstration, the commissioner shall provide notice, request comment, and, if requested, schedule and hold a public meeting on the application in accordance with section 11.2 of this rule.

(5) Except for discharges into the open waters of Lake Michigan, notwithstanding subdivisions (2), (3), and (4), the commissioner may deny any mixing zone for

a discharge or for a criterion for any substance in a discharge based upon a determination of adverse human health, aquatic life, or wildlife effects. The commissioner shall identify and document the rationale for this decision.

(6) For discharges into the open waters of Lake Michigan, if all of the conditions for approval of an alternate mixing zone are met in accordance with subdivision (4), the alternate mixing zone shall be granted unless the commissioner determines that the mixing zone should be denied based upon a consideration of harm to human health, aquatic life, or wildlife. The commissioner shall evaluate all available information, including information submitted by the public, relevant to the consideration of harm to human health, aquatic life, or wildlife. The commissioner shall identify the harm to human health, aquatic life, or wildlife, and document the rationale for this decision.

(7) The commissioner's evaluation of a mixing zone for a discharge into the open waters of Lake Michigan under subdivisions (2), (4), and (6) shall constitute the evaluation required by IC 13-18-4-7. Any decision regarding the granting or denial of a mixing zone for a discharge into Lake Michigan shall be included in the public notice of the tentative decision on the draft new, renewed, or modified permit. The basis for the tentative decision, including the commissioner's rationale for concluding whether or not the requirements of IC 13-18-4-7 are satisfied, shall be included in the briefing memo or fact sheet that accompany the tentative decision on the draft new, renewed, or modified permit.

(c) Wasteload allocations calculated in the absence of a TMDL and preliminary WLAs shall be determined using the conservation of mass equations as follows unless an alternate methodology is approved by the commissioner:

(1) For the calculations contained within this subsection, the following apply:

(A)  $WQC_c$  = The chronic water quality criterion or value. A chronic water quality criterion or value is any of the following:

(i) Criterion continuous concentration (CCC) or secondary chronic value (SCV).

(ii) WET criterion in chronic toxic units (1.0 TU<sub>c</sub>).

(iii) Human noncancer criterion (HNC) or human noncancer value (HNV).

(iv) Human cancer criterion (HCC) or human cancer value (HCV).

(v) Wildlife criterion (WC) or wildlife value (WV).

(vi) The criteria for sulfates, total dissolved solids, fluorides, and dissolved iron under 327 IAC 2-1.5-

- 8(j).
- (B)  $WQC_a$  = The criterion maximum concentration (CMC) or secondary acute value (SAV) or three-tenths (0.3)  $TU_a$  for WET.
- (C)  $FAV$  = Final acute value = two (2) times the CMC or SAV.
- (D)  $Q_e$  = The facility effluent flow as determined by subsection (a)(9).
- (E)  $Q_w$  = The portion of the receiving waterbody allocated for mixing pursuant to subsection (b).
- (F)  $C_b$  = The representative background concentration determined by subsection (a)(8).

(G)  $MR = \text{Mixing zone ratio} = \frac{Q_w}{Q_e}$ .

- (H)  $Q_z$  = The zone of initial dilution.

(2) Wasteload allocations for discharges into tributaries that exhibit appreciable flows relative to their volumes based on protection from acute aquatic effects shall be determined as follows:

(A) For a discharge without a high rate diffuser (or its functional equivalent), the equation resulting in the lesser WLA shall be used:

(i)  $WLA = FAV$  (or  $1.0 TU_a$  for WET); or

(ii)  $WLA = \frac{WQC_a(Q_e + Q_z) - (Q_z)(C_b)}{Q_e}$

(B) For a discharge with a high rate diffuser (or its functional equivalent), the following equation shall be used:

$$WLA = \frac{WQC_a(Q_e + Q_w) - (Q_w)(C_b)}{Q_e}$$

(3) Wasteload allocations for tributaries that exhibit appreciable flows relative to their volumes based on protection from chronic effects shall be determined as follows:

$$WLA = \frac{WQC_c(Q_e + Q_w) - (Q_w)(C_b)}{Q_e}$$

(4) Wasteload allocations for discharges into the open waters of Lake Michigan based on protection from acute aquatic effects shall be determined as follows:

(A) For a discharge without an approved alternate mixing zone, the equation resulting in the lesser WLA shall be used:

(i)  $WLA = FAV$  (or  $1.0 TU_a$  for WET); or

(ii)  $WLA = \frac{WQC_a(Q_e + Q_z) - (Q_z)(C_b)}{Q_e}$

(B) For a discharge with an approved alternate mixing zone, the following equation shall be used:

$$WLA = (WQC_a)(1 + MR) - (C_b)(MR)$$

(5) Wasteload allocations for the open waters of Lake Michigan based on protection from chronic effects shall be determined as follows:

$$WLA = (WQC_c)(1 + MR) - (C_b)(MR)$$

(d) Notwithstanding this section, the pollutants contained in this subsection shall be addressed as follows:

(1) The pH requirements contained in 327 IAC 2-1.5-8(c)(2) and 327 IAC 2-1.5-8(j) apply to the undiluted discharge.

(2) The bacteriological criteria contained in 327 IAC 2-1.5-8(e) apply to the undiluted discharge.

(3) Models, approved by the commissioner, that ensure compliance with the applicable water quality criteria for the following parameters shall be used:

(A) Dissolved oxygen criteria contained in 327 IAC 2-1.5-8(c)(3), 327 IAC 2-1.5-8(d)(1), and 327 IAC 2-1.5-8(j).

(B) Thermal requirements contained in 327 IAC 2-1.5-8(c)(4) and 327 IAC 2-1.5-8(d)(2).

(C) Criteria for the protection of public water supplies contained under 327 IAC 2-1.5-8(f).

(D) Criteria for the protection of industrial water supplies contained in 327 IAC 2-1.5-8(g).

*(Water Pollution Control Board; 327 IAC 5-2-11.4; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1441; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3379)*

### **327 IAC 5-2-11.5 Great Lakes system dischargers determination of reasonable potential to exceed water quality standards**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 11.5. (a) If the commissioner determines that a pollutant or pollutant parameter (either conventional, nonconventional, a toxic substance, or whole effluent toxicity) is or may be discharged into the Great Lakes system at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable narrative or numeric water quality criteria or value under 327 IAC 2-1.5, the commissioner shall incorporate WQBELs in an NPDES permit that will ensure compliance with the criteria or value. The commissioner shall exercise best professional judgment, taking into account the source and nature of the discharge, existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, and, where appropriate, the dilution of the effluent in the receiving water. In all cases, the commissioner shall use any valid, relevant,

representative information pertaining to the discharge of the pollutant.

(b) If the commissioner determines that a substance is or may be discharged into the Great Lakes system at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any numeric criterion for a toxic substance contained in 327 IAC 2-1.5-8(b)(3), Table 8-1, 327 IAC 2-1.5-8(b)(5), Table 8-3, 327 IAC 2-1.5-8(b)(6), Table 8-4, a criterion for ammonia contained under 327 IAC 2-1.5-8(c)(5), a criterion for sulfates, total dissolved solids, fluorides, or dissolved iron under 327 IAC 2-1.5-8(j), or a Tier I criterion or Tier II value determined under 327 IAC 2-1.5-11 through 327 IAC 2-1.5-16, the commissioner shall incorporate WQBELs in an NPDES permit for the discharge of that pollutant and in all cases, the commissioner shall use any valid, relevant, representative information pertaining to the discharge of the substance as follows:

(1) When facility-specific effluent monitoring data for a substance are available, the commissioner may take into account the source and nature of the discharge, existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, and, where appropriate, the dilution of the effluent in the receiving water in making the determination whether to develop preliminary effluent limitations (PELs) and comparing those effluent limitations to the projected effluent quality (PEQ) of the discharge in accordance with the following procedures:

(A) The commissioner shall develop PELs for the discharge of a pollutant from a point source using the following procedures:

(i) The commissioner shall develop preliminary WLAs for the discharge of the pollutant from the point source to protect human health, wildlife, acute aquatic life, and chronic aquatic life, based upon the following:

(AA) Any existing numeric criterion for a toxic substance contained in 327 IAC 2-1.5-8(b)(3), Table 8-1, 327 IAC 2-1.5-8(b)(5), Table 8-3, 327 IAC 2-1.5-8(b)(6), Table 8-4, or 327 IAC 2-1.5-8(c)(5).

(BB) Where there is no existing numeric criterion, the commissioner shall calculate a Tier I criterion for such substance for the protection of human health, wildlife, and aquatic life using the methodologies under 327 IAC 2-1.5-11 (aquatic life), 327 IAC 2-1.5-14 (human health), 327 IAC 2-1.5-15 (wildlife), and 327 IAC 2-1.5-16 (site-specific modifications).

(CC) Where there is insufficient data to calculate a Tier I criterion, the commissioner shall calcu-

late a Tier II value for such substance for the protection of human health and aquatic life using the methodologies under 327 IAC 2-1.5-12 (aquatic life), 327 IAC 2-1.5-14 (human health), and 327 IAC 2-1.5-16 (site-specific modifications).

(DD) Where there is insufficient data to calculate a Tier II value, the commissioner shall apply the procedure in subdivision (3) to determine whether data must be generated to calculate a Tier II value.

(ii) The commissioner shall develop preliminary WLAs for the discharge of sulfates, total dissolved solids, fluorides, or dissolved iron, in addition to the preliminary WLAs developed for these parameters under item (i), based on the numeric criteria for these substances under 327 IAC 2-1.5-8(j) when applicable.

(iii) Section 11.4(c) of this rule shall be used as the basis for determining preliminary WLAs in accordance with items (i) and (ii).

(iv) The commissioner shall develop PELs consistent with the preliminary WLAs developed under items (i) through (iii), and in accordance with the procedures for converting WLAs into WQBELs under section 11.6 of this rule.

(B) The commissioner shall determine the projected effluent quality (PEQ) as follows:

(i) When monthly average data are available, at least three (3) data points over the period of a month, the monthly PEQ shall be determined as follows:

(AA) The commissioner shall identify the number of monthly averages of the effluent data and the coefficient of variation of the monthly averages of the effluent data.

(BB) The commissioner shall obtain the appropriate multiplying factor from Table 11.5-1 in subsection (h) based on the information obtained in subitem (AA).

(CC) The maximum of the monthly average values shall be multiplied by the multiplying factor determined under subitem (BB) to determine the monthly PEQ.

(ii) When monthly average data is not available, the monthly PEQ shall be identical to the daily PEQ determined under item (iii). An alternate method of determining the monthly PEQ may be used if the applicant demonstrates that this alternate method results in a monthly PEQ representative of actual conditions at the facility.

(iii) The daily PEQ shall be determined as follows:

(AA) The commissioner shall identify the num

ber of daily effluent samples and the coefficient of variation of the daily effluent samples.

(BB) The commissioner shall obtain the appropriate multiplying factor from Table 11.5-1 in subsection (h) based on the information obtained in subitem (AA).

(CC) The maximum of the daily effluent samples shall be multiplied by the multiplying factor determined under subitem (BB) to determine the daily PEQ.

(iv) The coefficient of variation shall be calculated as the ratio of the standard deviation of the daily or monthly effluent data divided by the arithmetic average of the effluent data, except that where there are fewer than ten (10) data points the coefficient of variation shall be specified as six-tenths (0.6).

(v) In lieu of the procedures under items (i) through (iv), the commissioner shall allow the use of an alternate procedure for the determination of the PEQ if the applicant demonstrates that the alternate statistical procedure meets the following criteria:

(AA) Is a scientifically defensible statistical method.

(BB) Specifies the daily PEQ as the ninety-fifth percentile of the distribution of the projected population of daily values of the facility-specific effluent monitoring data.

(CC) Specifies the monthly PEQ as the ninety-fifth percentile of the distribution of the projected population of monthly average values of the facility-specific effluent monitoring data.

(DD) Accounts for and captures the long term daily and monthly variability of the effluent quality.

(EE) Accounts for limitations associated with sparse data sets.

(FF) Assumes a lognormal distribution of the facility-specific effluent data unless otherwise shown by the effluent data set.

(C) The commissioner shall establish WQBELs in the NPDES permit for each substance that:

(i) the monthly PEQ developed under clause (B) exceeds the monthly PEL developed under clause (A); or

(ii) the daily PEQ developed under clause (B) exceeds the daily PEL developed under clause (A).

(2) When facility-specific effluent monitoring data for a substance are not available, the commissioner shall exercise best professional judgment, taking into account the source and nature of the discharge, existing controls on point and nonpoint sources of pollu-

tion, and, where appropriate, the dilution of the effluent in the receiving water:

(A) for a new Great Lakes discharger, to develop an estimated monthly and daily PEQ necessary to make a determination under this subsection; or

(B) for an existing Great Lakes discharger, to determine whether it is necessary to require the applicant to collect the data required to make a determination under this subsection.

(3) The commissioner shall develop the necessary data to calculate Tier II values where such data does not currently exist as follows:

(A) Except as provided in clauses (B) and (D) or subdivision (4), for each toxic substance that a permittee reports as known or believed to be present in its effluent, or that the commissioner reasonably believes may be present in the effluent, and for which pollutant data sufficient to calculate Tier II values for noncancer human health, acute aquatic life, or chronic aquatic life do not exist, the commissioner shall take the following actions:

(i) For those effects (noncancer human health, acute aquatic life, or chronic aquatic life) for which sufficient data do not exist, the commissioner shall use all available, relevant information, including quantitative structure activity relationship (QSAR) information and other relevant toxicity information, to estimate ambient screening values for such pollutant that will protect humans from health effects other than cancer, and aquatic life from acute and chronic effects.

(ii) Using the procedures under subdivision (1)(A), the commissioner shall develop PELs for the discharge of the pollutant from the point source to protect human health, acute aquatic life, and chronic aquatic life, based upon the estimated ambient screening values.

(iii) The commissioner shall compare the PEQs developed according to the procedures under subdivision (1)(B) to the PELs developed under item (ii). If the monthly or daily PEQ exceeds the respective monthly or daily PEL, the commissioner shall generate or require the permittee to generate the data necessary to derive Tier II values for noncancer human health, acute aquatic life and chronic aquatic life.

(iv) The data generated under item (iii) shall be used in calculating a Tier II value as required under subdivision (1). The calculated Tier II value shall be used in calculating the PELs under subdivision (1)(A). These PELs shall be used for purposes of determining whether a WQBEL must be included in the permit under subdivision (1)(C).

(B) With the exception of bioaccumulative chemicals of concern (BCCs), the commissioner is not required to apply the procedures under clause (A) or include WQBELs to protect aquatic life for any pollutant discharged by an existing point source into the Great Lakes system if the following occur:

(i) There is insufficient data to calculate a Tier I criterion or Tier II value for aquatic life for the pollutant.

(ii) The permittee has demonstrated that the whole effluent does not exhibit acute or chronic toxicity.

(iii) The permittee has demonstrated, through a biological assessment, that there are no acute or chronic effects on aquatic life in the receiving water. Upon request by the permittee, the commissioner may determine that a biological assessment is not necessary to evaluate the impact of the pollutant on the receiving stream after considering:

(AA) the characteristics of the pollutant;

(BB) the concentration of the pollutant in the effluent;

(CC) the effluent flow; and

(DD) the biological and physical characteristics of the receiving waterbody.

(C) Nothing in clause (A) or (B) shall preclude or deny the right of the commissioner to:

(i) determine, in the absence of the data necessary to derive a Tier II value, that the discharge of the pollutant will cause, have the reasonable potential to cause, or contribute to an excursion above a narrative criterion for water quality; and

(ii) incorporate a WQBEL for the pollutant into an NPDES permit.

(D) If the commissioner develops a WQBEL consistent with clause (C) that is at least as stringent as a WQBEL that would have been developed based upon the Tier II value or values for that pollutant, the commissioner may require the permittee to generate the data necessary to derive a Tier II value or values for that pollutant.

(4) The determinations under this subdivision shall be made on a pollutant-by-pollutant, outfall-by-outfall basis. This subdivision applies only in the absence of an EPA-approved TMDL applicable to the discharge, or in the absence of an assessment and remediation plan submitted and approved in accordance with section 11.4(a)(2) of this rule. The following procedures shall be used in the consideration of intake pollutants in determining reasonable potential:

(A) As used in this subdivision and section 11.6(i) of this rule, "intake pollutant" means a pollutant that is present in waters of the state at the time it is withdrawn from such waters by the discharger or other

facility, such as a public water supply, supplying the discharger with intake water.

(B) As used in this subdivision and section 11.6(i) of this rule, an intake pollutant is considered to be from the same body of water as the discharge if the following conditions exist:

(i) The commissioner finds that the intake pollutant would have reached the vicinity of the outfall point in the receiving water within a reasonable period had it not been removed by the permittee. This finding may be deemed established if:

(AA) the representative background concentration of the pollutant in the receiving water, as determined under section 11.4(a)(8) of this rule, (excluding any amount of the pollutant in the facility's discharge) is similar to or greater than that in the intake water;

(BB) there is a direct hydrological connection between the intake and discharge points (the water at the point of intake naturally flows toward the water at the point of discharge); and

(CC) any difference in a water quality characteristic (such as temperature, pH, and hardness) between the intake and receiving waters does not result in an adverse impact on the receiving water.

(ii) The commissioner may also consider other site-specific factors relevant to the transport and fate of the pollutant to make the finding in a particular case that a pollutant would or would not have reached the vicinity of the outfall point in the receiving water within a reasonable period had it not been removed by the permittee.

(iii) An intake pollutant from ground water may be considered to be from the same body of water if the commissioner determines that the pollutant would have reached the vicinity of the outfall point in the receiving water within a reasonable period had it not been removed by the permittee, except that such a pollutant is not from the same body of water to the extent that the ground water contains the pollutant partially or entirely due to human activity, such as industrial, commercial, or municipal operations, disposal actions, or treatment processes.

(iv) Notwithstanding any other provision in this clause, an intake pollutant shall be considered to be from the same body of water if the permittee's intake point is located on Lake Michigan and the outfall point is located on a tributary of Lake Michigan and the following conditions are met:

(AA) The representative background concentration of the pollutant in the receiving water, as

determined under section 11.4(a)(8) of this rule, (excluding any amount of the pollutant in the facility's discharge) is similar to or greater than that in the intake water.

(BB) Any difference in a water quality characteristic (such as temperature, pH, and hardness) between the intake and receiving waters does not result in an adverse impact on the receiving water.

(C) The commissioner may use the procedure to determine reasonable potential described in this subdivision in lieu of the procedures contained under subdivisions (1) through (3) provided the following conditions are met:

(i) The commissioner may determine that there is no reasonable potential for the discharge of an intake pollutant or pollutant parameter to cause or contribute to an excursion above a narrative or numeric water quality criterion within an applicable water quality standard when a discharger demonstrates to the satisfaction of the commissioner (based upon information provided in the permit application or other information deemed necessary by the commissioner) that:

(AA) the facility does not contribute any additional mass of the intake pollutant to its wastewater;

(BB) the facility withdraws one hundred percent (100%) of the intake water containing the pollutant from the same body of water into which the discharge is made;

(CC) the facility does not alter the intake pollutant chemically or physically in a manner that would cause adverse water quality impacts to occur that would not occur if the pollutants were left in-stream;

(DD) the facility does not cause an increase in the intake pollutant concentration at the edge of the mixing zone, or at the point of discharge if a mixing zone is not allowed, as compared to the pollutant concentration in the intake waterbody unless the increased concentration does not cause or contribute to an excursion above an applicable water quality standard; and

(EE) the timing and location of the discharge would not cause adverse water quality impacts to occur that would not occur if the intake pollutant were left in the waterbody.

(ii) If a discharge of an intake pollutant or pollutant parameter is not able to qualify under item (i), the commissioner may decide not to impose WQBELs on the discharge, if the following conditions are met:

(AA) The discharge consists of one (1) or more

internal wastestreams that do qualify (qualifying wastestreams) under item (i) and one (1) or more internal wastestreams that do not qualify (nonqualifying wastestreams) under item (i).

(BB) For nonqualifying wastestreams composed entirely of storm water, the permittee accepts permit conditions for the storm water wastestream that the commissioner determines to be necessary to protect the water quality of the receiving waterbody. The requirements imposed shall be as if the storm water wastestream discharged directly into the receiving waterbody and shall be consistent with requirements imposed on other similar storm water discharges to the waterbody.

(CC) For nonqualifying wastestreams not composed entirely of storm water, the permittee accepts WQBELs on each of the nonqualifying wastestreams that have a reasonable potential for the discharge of the intake pollutant or pollutant parameter to cause or contribute to an excursion above a narrative or numeric water quality criterion as determined using the procedures under subdivisions (1) through (3). For purposes of determining reasonable potential and developing WQBELs for these nonqualifying wastestreams, the preliminary wasteload allocations and wasteload allocations in the absence of a TMDL shall be determined as if these nonqualifying wastestreams discharged directly into the receiving waterbody without combining with the qualifying wastestreams.

(iii) Upon a finding under item (i) or (ii) that a pollutant in the discharge does not cause, have the reasonable potential to cause, or contribute to an excursion above an applicable water quality standard, the commissioner is not required to include a WQBEL in the facility's permit for the intake pollutant provided:

(AA) the NPDES permit fact sheet or statement of basis includes a specific determination that there is no reasonable potential for the discharge of an intake pollutant to cause or contribute to an excursion above an applicable narrative or numeric water quality criterion and references appropriate supporting documentation included in the administrative record;

(BB) the permit requires all influent, effluent, and ambient monitoring necessary to demonstrate that the conditions in item (i) or (ii) are maintained during the permit term; and

(CC) the permit contains a reopener clause authorizing modification or revocation and

reissuance of the permit if new information indicates changes in the conditions under item (i) or (ii).

(iv) Absent a finding under item (i) or (ii) that the discharge of an intake pollutant or pollutant parameter does not cause, have the reasonable potential to cause, or contribute to an excursion above an applicable water quality criterion, the commissioner shall use the procedures contained under subdivisions (1) through (3) to determine whether the discharge of that pollutant causes, has the reasonable potential to cause, or contribute to an excursion above an applicable narrative or numeric water quality criterion.

(5) Notwithstanding this subsection, if the commissioner determines that the geometric mean of a pollutant in fish tissue samples collected from a waterbody exceeds the tissue basis of a toxic substance, after consideration of the variability of the pollutant's bioconcentration and bioaccumulation in fish the following provisions apply:

(A) If such pollutant is a BCC, each facility that discharges detectable levels of the BCC to that water has the reasonable potential to cause or contribute to an excursion above a water quality criterion for that BCC and the commissioner shall establish a WQBEL for such pollutant in the NPDES permit for each such facility.

(B) If such pollutant is not a BCC, the commissioner may determine that any or all of the facilities that discharge detectable levels of the pollutant to that water have the reasonable potential to cause or contribute to an excursion above a water quality criterion for that toxic substance and the commissioner shall establish a WQBEL for such pollutant in the NPDES permit for each such facility.

(c) Except as provided in subdivision (3), where the commissioner determines that the whole effluent toxicity (WET) of an effluent is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any numeric interpretation of a narrative WET criterion contained in 327 IAC 2-1.5-8, the commissioner shall incorporate WQBELs for WET in the NPDES permit and in all cases, the commissioner shall use any valid, relevant, or representative information pertaining to the discharge of WET as follows:

(1) When facility-specific WET effluent data are available, the commissioner may take into account the source and nature of the discharge, existing controls on point and nonpoint sources of pollution, the variability of the WET in the effluent, and, where appropriate, the dilution of the effluent in the receiving water in mak-

ing the determination to develop effluent limitations for WET. The WET of an effluent is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable WET criterion contained under 327 IAC 2-1.5, when effluent-specific information demonstrates the following:

(A) The acute WET of an effluent is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above an applicable acute WET criterion applied to the undiluted discharge, when effluent-specific information demonstrates the following:

$$(TU_a)(F) \geq 0.2$$

Where:  $TU_a$  = The geometric mean of the measured acute toxicity values expressed in acute toxic units ( $TU_a$  or  $TU_c$ ). Individual toxicity values may be estimated for the missing endpoint using a default acute-chronic ratio (ACR) of ten (10), when data exist for chronic WET, but not for acute WET.

F = Fraction of the measured toxicity values greater than the preliminary wasteload allocation for acute WET determined under section 11.4(c) of this rule (fraction failed).

(B) The acute WET of an effluent is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above an applicable acute WET criterion applied outside an alternate mixing zone, when effluent-specific information demonstrates the following:

$$F \geq 0.2$$

Where: F = Fraction of the measured toxicity values greater than the preliminary wasteload allocation for acute WET determined under section 11.4(c) of this rule (fraction failed). Individual toxicity values may be estimated for the missing endpoint using a default acute-chronic ratio (ACR) of ten (10), when data exist for chronic WET, but not for acute WET.

(C) The chronic WET of an effluent is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above an applicable chronic WET criterion, when effluent-specific information demonstrates the following:

$$\frac{(TU_c)(Q_c)(F)}{(Q_w + Q_c)} \geq 0.2$$

Where:  $TU_c$  = The geometric mean of the measured chronic toxicity values expressed in chronic toxic units. Individual toxicity values may be estimated for the missing endpoint using a default acute-chronic ratio (ACR) of ten (10), when data exist for acute WET, but not for chronic WET.

$Q_e$  = The effluent flow rate as determined under section 11.4(a)(9) of this rule.

$Q_w$  = The portion of the receiving waterbody allocated for mixing as determined under section 11.4(b) of this rule.

F = Fraction of the measured toxicity values greater than the preliminary wasteload allocation for acute or chronic WET determined under section 11.4(c) of this rule (fraction failed).

(2) When WET data are not available, the commissioner shall exercise best professional judgment, taking into account the source and nature of the discharge, existing controls on point and nonpoint source of pollution, and, where appropriate, the dilution of the effluent in the receiving water to determine whether it is necessary to impose WET requirements in accordance with the following:

(A) For a new Great Lakes discharger, the commissioner shall determine whether it is necessary to impose WET limitations.

(B) For an existing Great Lakes discharger, whether it is necessary to require the applicant to collect the data required to make a determination under this subsection. The commissioner may include in the NPDES permit the following conditions to generate additional data and control toxicity if found:

(i) WET testing requirements to generate the data needed to adequately characterize the toxicity of the effluent to aquatic life.

(ii) A toxicity reduction evaluation and a schedule to comply with WET limits if any toxicity testing data indicate that the WET of an effluent is or may be discharged at levels that will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable WET criterion.

(iii) WET limits that become effective upon completion of the compliance schedule.

(3) Limitations on whole effluent toxicity are not necessary where the commissioner demonstrates in the fact sheet or briefing memo of the NPDES permit that chemical-specific limits for the effluent are sufficient

to attain and maintain the applicable narrative water quality criteria for WET.

(d) Once the commissioner has determined in accordance with this section that a WQBEL must be included in an NPDES permit, the commissioner shall do the following:

(1) Rely upon the WLA established for the point source either as part of any EPA approved TMDL prepared under section 11.4 of this rule, or as part of an assessment and remediation plan developed and approved in accordance with section 11.4(a)(3) of this rule, or, in the absence of such TMDL or plan, calculate WLAs for the protection of acute and chronic aquatic life, wildlife, and human health in accordance with the provisions for developing wasteload allocations under section 11.4 of this rule.

(2) Develop water quality-based effluent limitations using these WLAs in accordance with section 11.6 of this rule.

(e) The commissioner may require monitoring for a pollutant or pollutant parameter even if it is determined that a WQBEL in the NPDES permit for that pollutant or pollutant parameter is not required.

(f) In addition to this section, effluent limitations shall be established to comply with all other applicable state and federal laws and regulations, including technology-based requirements and antidegradation policies.

(g) Notwithstanding subsection (b) or (c), the commissioner shall not impose WQBELs for a discharge consisting solely of once-through noncontact cooling water, except in accordance with the following:

(1) The commissioner may require a WQBEL based on an acute aquatic criterion for a substance or acute WET when information is available indicating that such a limit is necessary to protect aquatic life unless the discharger is able to demonstrate that the presence of the substance or WET is due solely to its presence in the intake water.

(2) The commissioner shall establish limitations or other requirements in the permit for the noncontact cooling water wastestream to prevent impairment of the receiving waterbody if a valid biological assessment of the receiving waterbody indicates that the noncontact cooling water discharge impairs an existing or designated use of the waterbody, exclusive of thermal impacts from a discharge for which alternative thermal effluent limitations have been established in accordance with Section 316(a) of the CWA and 327 IAC 5-7.

(3) If a substance is present at elevated levels in the noncontact cooling water wastestream due to improper operation or maintenance of the cooling system, and this substance is or may be discharged at a level that

will cause, have the reasonable potential to cause, or contribute to an excursion above a numeric criterion for a toxic substance as determined under subsection (b), WQBELs shall be established using the procedures in sections 11.4 and 11.6 of this rule.

(4) If the permittee uses or proposes to use additives in the noncontact cooling water wastestream, the additives shall be evaluated using the reasonable potential procedures contained under this section to determine whether WQBELs are necessary for the wastestream.

(5) If the source of the noncontact cooling water wastestream is contaminated ground water, the provisions of this subsection do not apply to the discharge of the substances contaminating the ground water.

(6) If one (1) or more wastestreams consisting solely of noncontact cooling water are combined with one (1) or more wastestreams not consisting solely of noncontact cooling water, the provisions of this subsection may still be applied to the wastestreams consisting solely of noncontact cooling water if, for the wastestreams that do not consist solely of noncontact cooling water, the following requirements are imposed:

(A) For each of the wastestreams composed entirely of storm water, permit conditions that the commissioner determines to be necessary to protect the water quality of the receiving waterbody shall be imposed. The requirements imposed shall be as if the

storm water wastestream discharged directly into the receiving waterbody and shall be consistent with requirements imposed on other similar storm water discharges to the waterbody.

(B) For each of the wastestreams not composed entirely of storm water, each wastestream shall be evaluated to determine if there is a reasonable potential for the discharge of a pollutant or pollutant parameter to cause or contribute to an excursion above a narrative or numeric water quality criterion as determined using the procedures in this section. For purposes of determining reasonable potential and developing WQBELs for these wastestreams, the preliminary wasteload allocations and wasteload allocations in the absence of a TMDL shall be determined as if these wastestreams discharged directly into the receiving waterbody without combining with the wastestreams consisting solely of noncontact cooling water.

(7) As used in this subsection, “once-through noncontact cooling water” means water used for cooling that does not come into direct contact with any raw material, intermediate product, final product, or waste product and makes one (1) or two (2) passes for the purpose of removing waste heat.

(h) The following table establishes the multiplying factors to be used in subsection (b):

Number of Samples	Coefficient of Variation																				
	0.05	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
1	1.2	1.4	1.9	2.6	3.6	4.7	6.2	8.0	10.1	12.6	15.5	18.7	22.3	26.4	30.8	35.6	40.7	46.2	52.1	58.4	64.9
2	1.1	1.3	1.6	2.0	2.5	3.1	3.8	4.6	5.4	6.4	7.4	8.5	9.7	10.9	12.2	13.6	15.0	16.4	17.9	19.5	21.1
3	1.1	1.2	1.5	1.8	2.1	2.5	3.0	3.5	4.0	4.6	5.2	5.8	6.5	7.2	7.9	8.6	9.3	10.0	10.8	11.5	12.3
4	1.1	1.2	1.4	1.7	1.9	2.2	2.6	2.9	3.3	3.7	4.2	4.6	5.0	5.5	6.0	6.4	6.9	7.4	7.8	8.3	8.8
5	1.1	1.2	1.4	1.6	1.8	2.1	2.3	2.6	2.9	3.2	3.6	3.9	4.2	4.5	4.9	5.2	5.6	5.9	6.2	6.6	6.9
6	1.1	1.1	1.3	1.5	1.7	1.9	2.1	2.4	2.6	2.9	3.1	3.4	3.7	3.9	4.2	4.5	4.7	5.0	5.2	5.5	5.7
7	1.1	1.1	1.3	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.1	3.3	3.5	3.7	3.9	4.1	4.3	4.5	4.7	4.9
8	1.1	1.1	1.3	1.4	1.6	1.7	1.9	2.1	2.3	2.4	2.6	2.8	3.0	3.2	3.3	3.5	3.7	3.9	4.0	4.2	4.3
9	1.1	1.1	1.2	1.4	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.8	2.9	3.1	3.2	3.4	3.5	3.6	3.8	3.9
10	1.0	1.1	1.2	1.3	1.5	1.6	1.7	1.9	2.0	2.2	2.3	2.4	2.6	2.7	2.8	3.0	3.1	3.2	3.3	3.4	3.6
11	1.0	1.1	1.2	1.3	1.4	1.6	1.7	1.8	1.9	2.1	2.2	2.3	2.4	2.5	2.7	2.8	2.9	3.0	3.1	3.2	3.3
12	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.0
13	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.5	2.6	2.7	2.8	2.9
14	1.0	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.3	2.4	2.5	2.6	2.6	2.7
15	1.0	1.1	1.2	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.8	1.9	2.0	2.1	2.2	2.2	2.3	2.4	2.4	2.5	2.5
16	1.0	1.1	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.7	1.8	1.9	1.9	2.0	2.1	2.1	2.2	2.3	2.3	2.4	2.4
17	1.0	1.1	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.7	1.7	1.8	1.9	1.9	2.0	2.0	2.1	2.2	2.2	2.3	2.3
18	1.0	1.1	1.1	1.2	1.3	1.3	1.4	1.5	1.6	1.6	1.7	1.7	1.8	1.9	1.9	2.0	2.0	2.1	2.1	2.2	2.2
19	1.0	1.1	1.1	1.2	1.3	1.3	1.4	1.5	1.5	1.6	1.6	1.7	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.1	2.1
20	1.0	1.1	1.1	1.2	1.2	1.3	1.4	1.4	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.9	1.9	2.0	2.0	2.0

30	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5
40	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3
50	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
60	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
70	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
80	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8
90	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
100	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7

(Water Pollution Control Board; 327 IAC 5-2-11.5; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1450; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3379)

### 327 IAC 5-2-11.6 Great Lakes system dischargers establishment of water quality-based effluent limitations (WQBELs)

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 11.6. (a) The NPDES permit shall include conditions necessary to achieve water quality standards established under 327 IAC 2-1.5, including narrative water quality criteria. The numeric water quality criteria set forth in 327 IAC 2-1.5-8 and Tier I criteria and Tier II values established under 327 IAC 2-1.5-11 through 327 IAC 2-1.5-16 shall not be enforceable against any point source discharger until translated into effluent limitations that are incorporated in NPDES permits in accordance with this article.

(b) Total maximum daily loads (TMDLs) and wasteload allocations (WLAs) developed under section 11.4 of this rule shall provide the basis for numeric water quality-based effluent limitations (WQBELs) established in NPDES permits for point sources discharging to waters within the Great Lakes system. If a variance has been granted from a water quality criterion under 327 IAC 2-1.5-17 and 327 IAC 5-3-4.1, WQBELs for the pollutant that is the subject of the variance shall be calculated on the basis of the variance rather than the water quality criterion.

(c) The following procedure shall be used to calculate WQBELs using the WLAs, including WLAs for whole effluent toxicity (WET), developed under section 11.4 of this rule:

(1) This subsection assumes that effluent data follow a log-normal distribution. If a discharger is able to demonstrate that the effluent data for a pollutant does not follow a log-normal distribution, and provides an alternate distribution that more accurately describes the data, this alternate distribution may be used in lieu of the procedures in this subsection.

(2) The following procedures shall be used to translate a WLA based on a dissolved criterion into a total

recoverable WLA used in the determination of WQBELs:

(A) Unless site-specific translators are determined in accordance with clause (B), the following translators shall be used to translate a dissolved WLA based on an acute or chronic dissolved aquatic water quality criterion into a total recoverable WLA to be used in the determination of total recoverable WQBELs in an NPDES permit:

Table 11.6-1  
Metals Translators  
Dissolved to Total Recoverable<sup>[1]</sup>

Substances	Acute Translators	Chronic Translators
Arsenic (III)	1.000	1.000
Cadmium	0.944	0.909
Chromium (III)	0.316	0.860
Copper	0.960	0.960
Mercury	0.850	0.850
Nickel	0.998	0.997
Selenium	0.922	0.922
Zinc	0.978	0.986

<sup>[1]</sup> Divide a dissolved WLA derived from an acute aquatic water quality criterion by the acute translator and divide a dissolved WLA derived from a chronic aquatic water quality criterion by the chronic translator.

(B) A discharger or proposed discharger may request the use of an alternate translator by using site-specific data. The discharger must conduct a site-specific study to identify the ratio of the dissolved fraction to the total recoverable fraction for a metal in the receiving waterbody outside the mixing zone. If the discharger provides an acceptable study, and other provisions of 327 IAC 2-1.5 and this article are satisfied (such as antibacksliding and antidegradation), the commissioner shall use the site-specific translators to convert a dissolved WLA into a total recoverable WLA. A translator derived for one (1) discharge into a waterbody segment may be applied to other discharges on the same waterbody segment if the translator would adequately represent

the site-specific conditions applicable to the other discharges.

(3) For the equations contained within this subsection the following apply:

(A)  $Z_{99} = 2.326$  (99th percentile probability basis).

(B) CV = coefficient of variation = ratio of the standard deviation to the mean. A value of six-tenths (0.6) will be used for the CV unless the discharger demonstrates that an alternate CV is more representative of the variability of the pollutant in the effluent.

(4) The first step in this procedure is to calculate a long term average (LTA) for each WLA determined under section 11.4 of this rule. These LTAs are calculated as follows:

(A) The  $LTA_A$  protective of acute aquatic life effects shall be calculated as follows:

$$LTA_A = \left( e^{(0.5\sigma^2 - Z_{99}\sigma)} \right) WLA_A$$

Where:  $\sigma^2 = \ln(CV^2 + 1)$ .

$WLA_A$  = WLA determined under section 11.4 of this rule using acute aquatic criteria or values or acute toxic units and, if appropriate, translated from a dissolved WLA to a total recoverable WLA in accordance with subdivision (2). This WLA is expressed as a one (1) day maximum.

(B) The  $LTA_C$  protective of chronic aquatic life effects shall be calculated as follows:

$$LTA_C = \left( e^{(0.5\sigma_4^2 - Z_{99}\sigma_4)} \right) WLA_C$$

Where:  $\sigma_4^2 = \ln(CV^2/4 + 1)$ .

$WLA_C$  = WLA determined under section 11.4 of this rule using criteria for sulfates, total dissolved solids, fluorides, and dissolved iron under 327 IAC 2-1.5-8(j), chronic aquatic criteria or values, or chronic toxic units and, if appropriate, translated from a dissolved WLA to a total recoverable WLA in accordance with subdivision (2). This WLA is expressed as a four (4) day average.

(C) The  $LTA_H$  protective of human health life effects shall be calculated as follows:

$$LTA_H = \left( e^{(0.5\sigma_{30}^2 - Z_{99}\sigma_{30})} \right) WLA_H$$

Where:  $\sigma_{30}^2 = \ln(CV^2/30 + 1)$ .

$WLA_H$  = WLA determined under section 11.4 of this rule using criteria or values for the protection of human health. This WLA is expressed as a thirty (30) day average.

(D) The  $LTA_W$  protective of wildlife effects shall be calculated as follows:

$$LTA_W = \left( e^{(0.5\sigma_{30}^2 - Z_{99}\sigma_{30})} \right) WLA_W$$

Where:  $\sigma_{30}^2 = \ln(CV^2/30 + 1)$ .

$WLA_W$  = WLA determined under section 11.4 of this rule using wildlife criteria or values. This WLA is expressed as a thirty (30) day average.

(5) Daily maximum and monthly average WQBELs are determined using the lowest LTA calculated in subdivision (4) as follows:

(A) The daily maximum WQBEL is calculated as follows:

$$\text{Daily Maximum} = \left( e^{(Z_{99}\sigma - 0.5\sigma^2)} \right) LTA$$

Where:  $\sigma^2 = \ln(CV^2 + 1)$ .

(B) The monthly average WQBEL is calculated as follows:

$$\text{Monthly Average} = \left( e^{(Z_{95}\sigma_n - 0.5\sigma_n^2)} \right) LTA$$

Where:  $\sigma_n^2 = \ln(CV^2/n + 1)$ .

$Z_{95} = 1.645$  (95th percentile probability basis).

$n$  = Number of samples per month. A value of ten (10) will be used unless the discharger demonstrates that an alternate value is more appropriate.

(C) The values of 1.0  $TU_a$  and 1.0  $TU_c$  will be the most restrictive WQBELs established in an NPDES permit for WET.

(d) Notwithstanding the provisions of subsection (c), WQBELs for the criteria listed in section 11.4(d) of this rule shall be developed to be consistent with the models used in that subsection.

(e) WQBELs in an NPDES permit for metals calculated from a dissolved water quality criterion contained in 327 IAC 2-1.5 shall be expressed in the permit as the total recoverable metals fraction unless all approved analytical methods for the metal inherently measure only its dissolved form, such as hexavalent chromium.

(f) Water quality-based effluent limitations for cyanide, calculated from a criterion for free cyanide contained in 327 IAC 2-1.5, shall be limited in the permit as free cyanide and monitored in the effluent using the

“Cyanides Amenable to Chlorination” (CATC) method (Standard Methods for the Examination of Water and Wastewater, Method 4500-CN G). The commissioner may approve the use of the “Weak and Dissociable Cyanide” method (Standard Methods for the Examination of Water and Wastewater, Method 4500-CN I) if the applicant demonstrates that interferences render the CATC method inaccurate. The commissioner may include additional monitoring, limitations, or other requirements in a permit, on a case-by-case basis, if the additional requirements are necessary to ensure that water quality standards will be attained.

(g) Whenever a WQBEL is developed, unless otherwise provided in subdivision (3) or (4), the WQBEL in the NPDES permit shall be expressed as both a concentration value and a corresponding mass loading rate as follows:

(1) Both mass and concentration limits shall be based on the same permit averaging periods such as daily, or monthly averages, or in other appropriate permit averaging periods.

(2) The mass loading rates shall be calculated using effluent flow rates that are the same as those used in establishing the concentration-based WQBELs.

(3) For pollutants or parameters that cannot appropriately be expressed in terms of mass (such as pH, temperature, radiation, bacteria, or dissolved oxygen) mass limits are not required.

(4) A discharger may request tiered mass limits for a discharge that increases as a result of wet weather flow. As used in this subdivision, “tiered mass limits” consists of two (2) sets of mass limits. One (1) set shall be based on the dry-weather effluent flow determined under section 11.4(a)(9) of this rule and the stream design flow under section 11.4(b) of this rule. The second set shall be based on an effluent flow and stream flow under wet weather conditions.

(h) When a WQBEL for a pollutant is calculated to be less than the level of quantitation (LOQ) the following conditions apply:

(1) The calculated WQBEL shall be established as the limit in the NPDES permit.

(2) The analytical method, level of detection (LOD), and LOQ shall be specified as follows:

(A) The commissioner shall specify in the permit the most sensitive, applicable, analytical method, specified in or approved under 40 CFR 136 or by the commissioner, to be used to monitor for the presence and amount in an effluent of the pollutant for which the WQBEL is established; and shall specify in accordance with clause (B), the LOD and LOQ that can be achieved by use of the specified analytical method.

(B) The LOD and LOQ shall be determined as follows:

(i) The method detection level (MDL) shall be used as the LOD unless the permittee demonstrates that a higher LOD is appropriate because of effluent-specific matrix interference.

(ii) The LOQ shall be the minimum level (ML) specified in or approved under 40 CFR 136 for the method for that pollutant. If no such ML exists, or if the method is not specified or approved under 40 CFR 136 or by the commissioner, the LOQ shall be calculated by multiplying the LOD by three and eighteen-hundredths (3.18). The commissioner may specify a higher LOQ if the permittee demonstrates that a higher LOQ is appropriate because of effluent-specific matrix interference. Other methods for deriving an LOQ may be approved by the commissioner if the method is scientifically defensible.

(3) Compliance with the WQBELs for the pollutant shall be determined as follows:

(A) When a daily maximum WQBEL is less than the LOD specified in the permit:

(i) effluent levels of the pollutant less than the LOD are in compliance with the maximum WQBEL; and

(ii) effluent levels greater than the LOD but less than the LOQ are in compliance with the maximum WQBEL, except when confirmed by a sufficient number of analyses of multiple samples and use of appropriate statistical techniques.

(B) When a daily maximum WQBEL is greater than the LOD specified in the permit but less than the LOQ specified in the permit, effluent levels of the pollutant less than the LOQ are in compliance with the WQBEL.

(C) To determine compliance with a WQBEL expressed as a daily maximum mass limitation, the LOD and LOQ shall each be converted to a mass value, using appropriate conversion factors and the same effluent flow used to determine the mass-based WQBEL, before applying the provision of clauses (A) and (B).

(D) When a monthly or weekly average WQBEL is less than the LOQ specified in the permit, a monthly or weekly average effluent level less than or equal to the respective monthly or weekly average WQBEL is in compliance with the monthly or weekly average WQBEL. Daily effluent values that are less than the LOQ, used to determine the monthly or weekly average effluent levels less than the LOQ, may be assigned a value of zero (0), unless, after considering the number of monitoring results that are greater

than the LOD, and applying appropriate statistical techniques, a value other than zero (0) is warranted.

(4) When a WQBEL is less than the LOD, the commissioner may require a period of accelerated monitoring in a permit, when the measured effluent level is between the LOD and LOQ, for the purpose of collecting additional data to apply the statistical analysis referenced in subdivision (3)(B) and (3)(D).

(5) When a WQBEL is less than the LOQ, special conditions may be included in the permit to better quantify the levels of pollutant present in the discharge. These special conditions may include, but are not limited to, the following:

- (A) Fish tissue sampling.
- (B) Caged-biota studies.
- (C) Whole effluent toxicity (WET) tests.
- (D) Limits on internal wastestreams.
- (E) Monitoring requirements on internal wastestreams.
- (F) Development of a more sensitive analytical procedure.
- (G) Monitoring for surrogate parameters.
- (H) Waterbody bioassessment.

(6) The permit shall contain reopener clauses authorizing modification or revocation and reissuance of the permit to:

- (A) include more stringent monitoring requirements or conditions if new information generated as a result of accelerated monitoring conducted in accordance with subdivision (4), or special conditions included in the permit in accordance with subdivision (5) indicates the likely presence of the pollutant in the discharge at levels above the WQBEL; and
- (B) specify the use of a different analytical method if a more sensitive analytical method has been specified in or approved under 40 CFR 136 or approved by the commissioner to monitor for the presence and amount in the effluent of the pollutant for which the WQBEL is established; and shall specify in accordance with subdivision (2)(B), the LOD and LOQ that can be achieved by use of the specified analytical method.

(7) The commissioner shall include a condition in the permit requiring the permittee to develop and conduct a pollutant minimization program (PMP) for each pollutant with a WQBEL below the LOQ in accordance with the following:

- (A) The goal of the pollutant minimization program shall be to maintain the effluent at or below the WQBEL. The pollutant minimization program shall include, but is not limited to, the following:
  - (i) Submission of a control strategy designed to proceed toward the goal.

- (ii) Implementation of appropriate cost-effective control measures, consistent with the control strategy.

- (iii) Monitoring necessary to monitor the progress toward the goal.

- (iv) An annual status report that shall be sent to the commissioner, including the following:

- (AA) All minimization program monitoring results for the previous year.

- (BB) A list of potential sources of the pollutant.

- (CC) A summary of all actions taken to reduce or eliminate the identified sources of the pollutant.

- (v) A pollution minimization program may include the submittal of pollution prevention strategies that use changes in production process technology, materials, processes, operations, or procedures to reduce or eliminate the source of the pollutant.

(B) No pollution minimization program is required if the permittee demonstrates that the discharge of a pollutant with a WQBEL below the LOQ is reasonably expected to be in compliance with the WQBEL at the point of discharge into the receiving water. This demonstration may include, but is not limited to, the following:

- (i) Treatment information, including information derived from modeling the destruction or removal of the pollutant in the treatment process.

- (ii) Mass balance information.

- (iii) Fish tissue studies or other biological studies.

(C) In determining appropriate cost-effective control measures to be implemented in a pollution minimization program, the following factors may be considered:

- (i) Significance of sources.

- (ii) Economic and technical feasibility.

- (iii) Treatability.

(D) The permit shall contain a reopener clause authorizing modification or revocation and reissuance of the permit to revise (such as more or less frequent monitoring) or remove the requirements of this subdivision if supported by information generated as a result of this subdivision.

(i) The determinations under this subsection regarding the consideration of intake pollutants, as defined under section 11.5(b)(4)(A) of this rule, shall be made on a pollutant-by-pollutant, outfall-by-outfall basis. This subsection applies only when the concentration of the pollutant of concern upstream of the discharge, as determined under section 11.4(a)(8) of this rule, exceeds the most stringent applicable water quality criterion for that pollutant. In addition, this subsection applies only in the absence of an EPA approved TMDL applicable to the

discharge, or in the absence of an assessment and remediation plan submitted and approved in accordance with section 11.4(a)(2) of this rule. The requirements of section 11.5(b)(3)(A) of this rule shall also apply to this section. The following procedures shall be used in the consideration of intake pollutants in establishing WQBELs:

(1) When an intake pollutant is from the same body of water, as defined under section 11.5(b)(4)(B) of this rule, and the discharge and the facility meet the conditions in section 11.5(b)(4)(C)(i)(BB) through 11.5(b)(4)(C)(i)(EE), the following procedures apply:

(A) The commissioner may establish effluent limitations allowing the facility to discharge a mass and concentration of the pollutant that are no greater than the mass and concentration of the pollutant identified in the facility's intake water (no net addition limitations). The permit shall specify how compliance with mass and concentration limitations shall be assessed. No permit may authorize no net addition limitations that are effective after March 23, 2007. After that date, WQBELs shall be established in accordance with section 11.5(d) of this rule.

(B) Where proper operation and maintenance of a facility's treatment system results in removal of a pollutant, the commissioner may establish limitations that reflect the lower mass or concentration, or both, of the pollutant achieved by such treatment, taking into account the feasibility of establishing such limits.

(C) For pollutants contained in intake water provided by a water system, the concentration of the intake pollutant shall be determined at the point where the raw water supply is removed from the same body of water, except that it shall be the point where the water enters the water supplier's distribution system where the water treatment system removes any of the identified pollutants from the raw water supply. Mass shall be determined by multiplying the concentration of the pollutant by the volume of the facility's intake flow received from the water system.

(2) Where the pollutant in a facility's discharge originates from a water of the state that is not the same body of water as the receiving water, as determined in accordance with section 11.5(b)(4)(B) of this rule, WQBELs shall be established based upon the most stringent applicable water quality criterion for that pollutant.

(3) Where a facility discharges intake pollutants that originate in part from the same body of water, and in part from a different body of water, the commissioner may apply the procedures of subdivisions (1) and (2) to derive an effluent limitation reflecting the flow-

weighted average of each source of the pollutant, provided that adequate monitoring to determine compliance can be established and is included in the permit.

*(Water Pollution Control Board; 327 IAC 5-2-11.6; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1457; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3379; errata, 26 IR 3884)*

**327 IAC 5-2-11.7 Great Lakes system dischargers interim antidegradation implementation procedures for outstanding state resource waters**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 4-21.5-3; IC 13-11-2-24; IC 13-14-8-4; IC 13-15-5-1; IC 13-18-4; IC 13-18-7; IC 13-23-13; IC 13-24-1; IC 13-25-5

Sec. 11.7. (a) In order to implement the antidegradation standard in 327 IAC 2-1.5-4(c), the commissioner shall ensure that the water quality of a waterbody designated as an outstanding state resource water (OSRW) under 327 IAC 2-1.5-19(b) is maintained and protected in its present high quality without degradation by requiring the following:

(1) This subdivision applies to an existing Great Lakes discharger discharging under a valid NPDES permit directly into a waterbody designated as an OSRW.

(A) This clause applies to a proposed discharge of a new pollutant or pollutant parameter for which the monthly average mass discharged would be greater than ten percent (10%) of the unused loading capacity, as defined in subsection (c)(5), for the pollutant or pollutant parameter.

(i) As used in this clause, "new" means a new pollutant or pollutant parameter that is proposed to be discharged and was not being discharged by an existing NPDES permittee as of the effective date of this section.

(ii) Except as provided in subsection (b), (c), (d), or (f), NPDES permit limits for the proposed new discharge of a pollutant or pollutant parameter shall be established as follows:

(AA) Determine the representative background concentration of the pollutant or pollutant parameter in the receiving waterbody using section 11.4(a)(8) of this rule. This concentration value shall be converted to a mass value using the discharge flow determined using section 11.4(a)(9) of this rule.

(BB) The mass value determined in subitem (AA) shall become the monthly average mass effluent limitation.

(B) This clause applies to a proposed increase in the discharge of any pollutant or pollutant parameter that is limited in an existing NPDES permit, which would cause an increase in the monthly average mass effluent limitation in the permit or the monthly average mass effluent limitation calculated under item (ii) when the permit contains an effluent limitation other than a monthly average mass effluent limitation for that pollutant or pollutant parameter. Except as provided in subsection (b), (c), (d), or (f), NPDES permit limits for the proposed increase in the discharge of a pollutant or pollutant parameter shall be established as follows:

(i) Determine the representative background concentration of the pollutant or pollutant parameter in the receiving waterbody using section 11.4(a)(8) of this rule. This concentration value shall be converted to a mass value using the proposed increase in the discharge flow.

(ii) Determine the monthly average mass limitation for the pollutant or pollutant parameter in the existing NPDES permit. If the existing permit does not contain a monthly average mass effluent limitation for the pollutant or pollutant parameter, the existing weekly average or daily maximum permit limit shall be converted into a monthly average value. If the existing permit does not contain a mass limit for the pollutant or pollutant parameter but does contain a concentration limitation, the concentration limitation shall be converted to a mass value using the discharge flow determined under section 11.4(a)(9) of this rule.

(iii) Add the monthly average mass values determined in items (i) and (ii) together. This sum then becomes the new monthly average mass effluent limitation.

(iv) Notwithstanding items (i) through (iii), if the proposed increase in mass is not a result of an increase in discharge flow, the commissioner shall calculate the monthly average mass effluent limitation on a case-by-case basis.

(C) This clause applies to a proposed increase in the discharge of any pollutant or pollutant parameter that was being discharged as of the effective date of this section but is not limited in an existing NPDES permit, which would trigger the need for a monthly average mass effluent limitation for the existing discharge. Except as provided in subsection (b), (c), (d), or (f), NPDES permit limits for the proposed increase in the discharge of a pollutant or pollutant parameter shall be established as follows:

(i) Determine the representative background concentration of the pollutant or pollutant parameter

in the receiving waterbody using section 11.4(a)(8) of this rule. This concentration value shall be converted to a mass value using the proposed increase in the discharge flow.

(ii) Determine the monthly average mass effluent limitation for the pollutant or pollutant parameter for the existing discharge.

(iii) Add the mass values determined in items (i) and (ii) together. This sum becomes the new monthly average mass effluent limitation for the pollutant or pollutant parameter.

(iv) Notwithstanding items (i) through (iii), if the proposed increase in mass is not a result of an increase in discharge flow, the commissioner shall calculate the monthly average mass effluent limitation on a case-by-case basis.

(D) Clauses (A) through (C) do not apply to new or increased discharges of BCCs. If there is a proposed increase in the discharge of a BCC and the proposed increase is attributable to a deliberate action by the permittee and the proposed increase does not qualify under subsection (b) or (c), the commissioner shall deny the request.

(E) The following provisions apply to existing Great Lakes dischargers proposing a new or increased discharge of a pollutant or pollutant parameter.

(i) An existing Great Lakes discharger proposing to:

(AA) discharge a new pollutant or pollutant parameter; or

(BB) increase the discharge of any pollutant or pollutant parameter unless the increase is due to one (1) or more of the reasons provided in subsection (b);

shall first provide written notice to the commissioner. The notice shall specify the new or increased pollutant or pollutant parameter proposed to be discharged and the amount.

(ii) Upon receipt of the notice, the commissioner shall provide public notice and opportunity for comment. The notice shall contain the information required in section 11.2(b)(2)(A) through 11.2(b)(2)(G) of this rule and shall be provided in accordance with the provisions of section 11.2(b)(1) of this rule.

(iii) The commissioner shall determine whether new or different permit limitations are required pursuant to the provisions of clause (A), (B), or (C) for the pollutant or pollutant parameter. The commissioner shall provide notice of the determination in accordance with the provisions under section 11.2(b)(1) of this rule and the applicable provisions of IC 4-21.5-3.

(2) For a new or increased discharge of a pollutant or

pollutant parameter from a new or existing Great Lakes discharger into a tributary of an OSRW for which a new or increased permit limit would be required:

(A) section 11.3(a) and 11.3(b) of this rule apply to the new or increased discharge of a pollutant or pollutant parameter into the tributary; and

(B) the discharge shall not cause a significant lowering of water quality in the OSRW.

(C) The requirements of this subdivision will be considered to have been met when:

(i) one (1) or more of the items listed in section 11.3(b)(1)(C)(i), 11.3(b)(1)(C)(ii), 11.3(b)(1)(C)(iii)(BB), 11.3(b)(1)(C)(iii)(FF), or 11.3(b)(1)(C)(iii)(II) of this rule apply; or

(ii) all three (3) of the following are met:

(AA) one (1) or more of the subitems in section 11.3(b)(1)(C)(iii)(AA), 11.3(b)(1)(C)(iii)(CC), 11.3(b)(1)(C)(iii)(EE), 11.3(b)(1)(C)(iii)(GG), 11.3(b)(1)(C)(iii)(HH), or 11.3(b)(1)(C)(iii)(LL) of this rule apply;

(BB) the applicant demonstrates that the increase is necessary; and

(CC) the public notice requirements in subsection (c)(6) are met; or

(iii) all four (4) of the following are met:

(AA) one (1) or more of the subitems in section 11.3(b)(1)(C)(iii)(DD), 11.3(b)(1)(C)(iii)(JJ), or 11.3(b)(1)(C)(iii)(KK) of this rule apply;

(BB) the applicant demonstrates that the increase is necessary;

(CC) the applicant demonstrates that it will result in a net environmental improvement; and

(DD) the public notice requirements in subsection (c)(6) are met.

(D) As used in this subdivision, “tributary of an OSRW” includes the upstream segments of a receiving waterbody when some or all of the downstream segments of the receiving waterbody are designated as an OSRW.

(3) For all discharges directly into an OSRW, the commissioner shall establish the following conditions in the permit applicable to the regulated facility:

(A) The permit shall prohibit the regulated facility from undertaking any deliberate action that would result in a degradation of water quality of the OSRW, unless the action complies with applicable provisions of this section.

(B) Whether or not the permit contains a limitation for a BCC, the permit shall require monitoring for any BCC known or believed to be present in the permitted discharge, from any point or nonpoint source over which the permittee has control. If there is an increase in loading of a BCC, above normal

variability, attributable to a deliberate action, the permit shall require the discharger to notify the commissioner of the increase. If the increased discharge of the BCC does not qualify under at least one (1) of the exceptions under subsection (b) or (c) and is attributable to a deliberate action by the permittee, the commissioner shall require elimination of the increase.

(C) Fact sheets prepared pursuant to 40 CFR 124.8 and 40 CFR 124.56 or 327 IAC 5-3-8 shall reflect any conditions developed under clause (A) or (B) and included in a permit.

(b) Subsection (a)(1) does not apply to the following actions:

(1) Increases in loadings of any pollutant or pollutant parameter, including heat, from an existing permitted discharger, that are within the existing capacity and processes and that are covered by the existing applicable permit. These increases include, but are not limited to, the following:

(A) Normal operational variability, including, but not limited to, intermittent increased discharges due to wet-weather conditions.

(B) Changes in intake water pollutants not caused by the discharger.

(C) Increasing the production hours of the facility, for example, adding a second shift.

(D) Increasing the rate of production.

(2) New limits for an existing permitted discharger that are not a result of increases in pollutant loading and will not allow an increase in pollutant loading including new limits that are a result of the following:

(A) New or improved monitoring data.

(B) New or improved analytical methods.

(C) New or modified water quality criteria or values.

(D) New or modified effluent limitations guidelines, pretreatment standards, or control requirements for POTWs.

(3) Bypasses that are not prohibited at 40 CFR 122.41(m) or section 8(11) of this rule.

(4) Increasing the sewered area, connection of new sewers and customers, or acceptance of trucked-in wastes (such as septage and holding tank wastes) by a POTW, provided that the increase is within the existing NPDES permit limits of the facility, there is no increased loading of BCCs from nondomestic wastes, and no significant change is expected in the characteristics of the wastewater discharged.

(c) Notwithstanding subsection (a)(1), the commissioner may permit the actions in subdivision (1), (2), or (3) after providing public notice and opportunity for comment in accordance with subdivision (6). In all cases, the actions shall assure water quality adequate to protect

designated and existing uses fully and shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control. In addition, the new or increased discharge shall be limited to the minimum necessary to allow the action to occur. The commissioner must approve of the following actions before the proposed new or increased discharge can occur:

(1) The commissioner may allow the following to occur if the applicant demonstrates that the increases are necessary:

(A) Short term, temporary (weeks or months) lowering of water quality.

(B) New or increased discharges of a pollutant or pollutant parameter due to response actions pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (as defined in IC 13-11-2-24), as amended, corrective actions pursuant to the Resource Conservation and Recovery Act (RCRA), as amended, or similar federal or state authorities undertaken to alleviate a release into the environment of hazardous substances, pollutants, or contaminants that may pose an imminent and substantial danger to public health or welfare.

(C) New or increased discharges of a pollutant due to implementation of department-approved industrial or municipal controls on wet-weather flows, including combined sewer overflows and industrial storm water, when there is no net increase in the loading of the pollutant to the OSRW.

(D) New or increased discharges of a wastewater or water treatment additive, as defined in subsection (f).

(E) New or increased discharges of a pollutant or pollutant parameter, when the facility withdraws intake water containing the pollutant or pollutant parameter from the same body of water, and the new or increased discharge of the pollutant or pollutant parameter is due solely to the presence of the pollutant or pollutant parameter in the intake. For the purpose of this clause, "same body of water" has the meaning set forth in section 11.5(b)(4)(B) of this rule.

(F) New or increased discharges of heat that will not result in an increase in temperature:

(i) in a stream, outside of the designated mixing zone, where applicable; or

(ii) in Lake Michigan, as allowed in 327 IAC 2-1.5-8(c)(4)(D)(iv), at the edge of a one thousand (1,000) foot arc inscribed from a fixed point adjacent to the discharge.

(2) The commissioner may allow the following pro-

posed new or increased discharges to occur if the applicant demonstrates that the increases are necessary and that they will result in a net environmental improvement:

(A) New or increased discharges of a pollutant or pollutant parameter that is not a BCC where there is a contemporaneous enforceable decrease in the actual loading of the pollutant or pollutant parameter from sources contributing to the OSRW or to the tributaries to the OSRW such that there is no net increase in the loading of the pollutant or pollutant parameter to the OSRW. The commissioner may approve such an action only if:

(i) the reduction in the discharge of the pollutant or pollutant parameter exceeds the new or increased discharge of the pollutant or pollutant parameter;

(ii) the applicant demonstrates that all reasonable and cost-effective methods for avoiding the new or increased discharge have been taken; and

(iii) the new or increased discharge complies with subdivision (4).

(B) An action that will result in a new or increased discharge of a pollutant or pollutant parameter that is not a BCC if the new or increased discharge is necessary to accomplish a reduction in the discharge of another pollutant or pollutant parameter. The commissioner may approve such an action only if:

(i) the new or increased discharge of the pollutant or pollutant parameter is determined to be either:

(AA) less toxic and no more bioaccumulative; or

(BB) less bioaccumulative and no more toxic;

(ii) the applicant demonstrates that all reasonable and cost-effective methods for avoiding the new or increased discharge have been taken; and

(iii) the new or increased discharge complies with subdivision (4).

(C) An action that will result in a new or increased discharge of a pollutant or pollutant parameter that is not a BCC if the new or increased discharge is necessary to accomplish a reduction in the release of an air pollutant. The commissioner may approve such an action only if:

(i) the reduction in the discharge of the air pollutant is necessary to meet a state or federal air quality standard or will substantially reduce human exposure to hazardous air pollutants;

(ii) the applicant demonstrates that all reasonable and cost-effective methods for avoiding the new or increased discharge have been taken; and

(iii) the new or increased discharge complies with subdivision (4).

(3) Notwithstanding subdivisions (1) and (2), an action that will result in the new or increased discharge of a

pollutant or pollutant parameter that is not a BCC into an OSRW for a facility with an existing NPDES permit for a discharge into that OSRW may be permitted in accordance with the following:

(A) The commissioner shall review and make a tentative decision on the application using the following criteria:

- (i) The factors contained in IC 13-14-8-4.
- (ii) The applicant has demonstrated that all economically and technically feasible measures have been undertaken to avoid the action that will result in the new or increased discharge of the pollutant or pollutant parameter including a demonstration that it is not feasible to limit the new or increased discharge to a temporary or short term period.
- (iii) The new or increased discharge complies with subdivision (4).

(B) The commissioner shall incorporate the tentative decision on the application into the draft new, renewal, or modified NPDES permit, and the draft permit shall be made available for comment under 327 IAC 5-3-9.

(C) After the close of the public comment period (including any public hearing), the commissioner shall present the tentative decision on the application and the comments received during the public comment period (and public hearing) to the board.

(D) The board shall take into account the criteria in clause (A) in making a recommendation to adopt, deny, or revise the commissioner's tentative decision.

(E) The commissioner shall, after fully considering the board's recommendation, incorporate the final decision on the new or increased discharge into the final new, renewal, or modified NPDES permit issued in accordance with 327 IAC 5-3-14.

(4) A new or increased discharge under subdivision (2) or (3) may be approved under the following conditions, as applicable:

(A) Except for heat, the sum of all previously approved new or increased discharges for the pollutant or pollutant parameter allowed under these subdivisions plus the new requested increase does not exceed ten percent (10%) of the unused loading capacity for the pollutant or pollutant parameter as determined as of the date of the first approved increase.

(B) For heat, one (1) of the following conditions is satisfied:

- (i) The new or increased discharge will not result in an increase in temperature:
  - (AA) in a stream, outside of the designated mixing zone, where applicable; or

(BB) in Lake Michigan, as allowed in 327 IAC 2-1.5-8(c)(4)(D)(iv), at the edge of a one thousand (1,000) foot arc inscribed from a fixed point adjacent to the discharge.

(ii) The new or increased discharge will not result in an increase in waste heat:

- (AA) for a stream, that is greater than the amount determined by calculating the number of British thermal units (BTUs) required to raise the temperature of the stream design flow of the receiving stream by one (1) degree Fahrenheit; or
- (BB) for Lake Michigan, greater than five-tenths (0.5) billion BTUs per hour.

(5) The following definitions apply throughout this subsection:

(A) "Total loading capacity" means the product of the applicable water quality criterion times the sum of the existing effluent flow and the approved mixing volume for Lake Michigan, or the stream design flow, for the OSRW in the area where the water quality is proposed to be lowered, expressed as a mass loading rate.

(B) "Unused loading capacity" means that amount of the total loading capacity not utilized by point source and nonpoint source discharges. The unused loading capacity is established at the time the request to lower water quality is considered.

The definitions in this subdivision cannot be used to calculate the total loading capacity and unused loading capacity for total suspended solids, dissolved oxygen, heat, radioactive substances, bacteria, and pH.

(6) Upon receipt of a request for application of an antidegradation exception under this subsection, the commissioner shall provide notice, request comment, and schedule and hold a public meeting on the application. The notice, request for comments, and public meeting shall be conducted in accordance with section 11.2 of this rule.

(d) Notwithstanding this section, and in accordance with the antidegradation standard in 327 IAC 2-1.5-4(e), in those cases where the potential lowering of water quality is associated with a thermal discharge granted pursuant to Section 316 of the Clean Water Act and 327 IAC 5-7, the decision to allow such degradation shall be consistent with Section 316 of the Clean Water Act and 327 IAC 5-7.

(e) The department shall report to the board annually as to whether the increases allowed by this section have been determined to have a measurable effect on human health, aquatic life, or wildlife. The department shall use all available information to conduct the evaluation and prepare the report for the board.

(f) Notwithstanding the other provisions of this

section, the permittee may use wastewater and water treatment additives, other than BCCs, that have not been approved for use by the commissioner, on an immediate basis under the following conditions:

- (1) If the wastewater or water treatment additive is not a biocide, the use of the wastewater or water treatment additive is necessary to comply with permit conditions.
- (2) If the wastewater or water treatment additive is a biocide, the use of the wastewater or water treatment additive is necessary to prevent the loss of human life, personal injury, or severe property damage.
- (3) The permittee shall orally report information on the use of the treatment additive to IDEM within twenty-four (24) hours of the time the permittee uses or begins using the treatment additive.
- (4) The permittee shall provide written notice, which contains the information required by subsection (c)(1), to IDEM within five (5) days of the time the permittee uses or begins using the treatment additive.
- (5) As used in this subsection, "wastewater treatment additive" means a chemical or mixture of chemicals added to wastewater to aid in the treatment of that wastewater.
- (6) As used in this subsection, "water treatment additive" means a chemical or mixtures of chemicals added to intake water or nonprocess water, such as water used in a boiler or noncontact cooling water, for the purpose of treating the intake or nonprocess water for use in the facility. Examples of uses for water treatment additives include slimicides, biocides, molluscicides, and corrosion inhibitors.
- (7) The permittee may use the authorization under this section for the period of time necessary to meet the conditions in subdivision (1) or (2).

*(Water Pollution Control Board; 327 IAC 5-2-11.7; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1461; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3380; filed Jul 30, 1998, 4:55 p.m.: 21 IR 4522; filed Jun 30, 1999, 2:34 p.m.: 22 IR 3380; filed Sep 26, 2000, 1:36 p.m.: 24 IR 284; errata filed Jan 2, 2001, 9:48 a.m.: 24 IR 1356)*

### **327 IAC 5-2-12 Schedules of compliance**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 12. (a) Where appropriate, permits shall contain schedules of compliance requiring the permittee to take specific steps to achieve expeditious compliance with applicable standards and limitations and other requirements, including water quality-based limitations and requirements in accordance with this section, except for schedules of compliance for water quality-based effluent

limitations for discharges within the Great Lakes system that are governed under section 12.1 of this rule. A schedule of compliance shall require compliance as soon as reasonably possible, but not later than the earlier of the following:

- (1) An applicable statutory deadline.
- (2) A deadline specified in a rule establishing applicable limitations, standards, or other requirements.
- (3) If no statutory or regulatory deadline is expressly applicable, three (3) years from the date applicable standards, limitations, or other requirements are incorporated into the permit.
  - (b) If any permit allows a time for achieving final compliance, which exceeds nine (9) months from the date of permit issuance, the schedule of compliance in the permit shall set forth interim requirements and the dates for their achievement as follows:
    - (1) In no event shall more than nine (9) months elapse between dates specified for interim requirements.
    - (2) If the time necessary for completion of any interim requirements (such as the construction of a treatment facility) is more than nine (9) months and is not readily divisible into stages for completion, the permit shall specify interim dates not more than nine (9) months apart for the submission of reports of progress toward completion of the interim requirements.
  - (c) A permittee may terminate its direct discharge by cessation of operation or discharge to a POTW rather than achieve applicable standards and limitations by the final date for compliance established in its permit or in the CWA as follows:
    - (1) If the decision to terminate a direct discharge is made after issuance of a permit:
      - (A) the permit shall be modified or revoked and reissued to contain a schedule of compliance leading to termination of the direct discharge by a date which is no later than the statutory deadline; or
      - (B) the permittee shall terminate direct discharge before noncompliance with any interim requirement specified in the schedule of compliance in the permit.
    - (2) If the decision to terminate a direct discharge is made before issuance of the permit, the permit shall contain a schedule leading to termination of the direct discharge by a date which is no later than the statutory deadline.
    - (3) In all cases, the permittee's decision to terminate its direct discharge of pollutants shall be evidenced by a board of directors' resolution which has been made public or by such other means as evidences a firm public commitment.
    - (d) The commissioner may, upon request of the applicant, modify a schedule of compliance in an issued

permit if he determines good and valid cause (such as a natural disaster, strike, materials shortage, or other events over which the permittee has little or no control or remedy) exists for such modification under section 16 of this rule. In no case shall the compliance schedule be modified to extend beyond an applicable statutory treatment deadline.

(e) New sources, new dischargers, sources which recommence discharging after terminating operations, and those sources which had been indirect dischargers and which commence discharging into navigable waters do not qualify for compliance schedules under this section in the initial permits issued to such dischargers. Moreover, such dischargers are subject to section 17(c)(4) of this rule. Such a discharger, however, may receive compliance schedules, where otherwise allowed under this rule, to achieve compliance with applicable standards, effluent limitations, and other requirements promulgated or otherwise established subsequent to the issuance of the initial permit. (*Water Pollution Control Board; 327 IAC 5-2-12; filed Sep 24, 1987, 3:00 p.m.: 11 IR 627; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1752; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1464*)

### **327 IAC 5-2-12.1 Great Lakes systems dischargers; schedules of compliance**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 12.1. (a) When a permit issued to a new Great Lakes discharger contains a WQBEL, the permittee shall comply with such a limitation upon the commencement of the discharge.

(b) Any existing permit that is reissued or modified to contain a new or more restrictive WQBEL or a more restrictive limit of quantitation (LOQ) (when an LOQ is used as the compliance value for a WQBEL below an LOQ) may allow a reasonable period of time, up to five (5) years from the date of permit issuance or modification, for the permittee to comply with that limit in accordance with the following conditions:

(1) When the compliance schedule established under this subsection goes beyond the term of the permit, an interim permit limit effective upon the expiration date shall be included in the permit and addressed in the permit's fact sheet or statement of basis. The permit shall reflect the final limit and its compliance date.

(2) If a permit establishes a schedule of compliance under this subsection, which exceeds one (1) year from the date of permit issuance or modification, the schedule shall set forth interim requirements and dates for their achievement as follows:

(A) The time between such interim dates may not exceed one (1) year.

(B) If the time necessary for completion of any interim requirement is more than one (1) year and is not readily divisible into stages for completion, the permit shall require, at a minimum, specified dates for annual submission of progress reports on the status of any interim requirements.

(c) Whenever a limit based upon a Tier II value is included in a reissued or modified permit for an existing Great Lakes discharger, the permit may provide a reasonable period of time, up to two (2) years, in which to provide additional studies necessary to develop a Tier I criterion or to modify the Tier II value. In such cases, the permit shall require compliance with the Tier II limitation within a reasonable period of time, no later than five (5) years after permit issuance or modification, and contain a reopener clause in accordance with the following conditions:

(1) The reopener clause shall authorize permit modifications if specified studies have been completed by the permittee or provided by a third party during the time allowed to conduct the specified studies, and the permittee or a third party demonstrates, through such studies, that a revised limit is appropriate. Such a revised limit shall be incorporated through a permit modification and a reasonable time period, up to five (5) years, shall be allowed for compliance. If incorporated prior to the compliance date of the original Tier II limitation, any such revised limit shall not be considered less stringent for purposes of the antibacksliding provisions of section 10(11) of this rule and Section 402(o) of the Clean Water Act (CWA).

(2) If the specified studies have been completed and do not demonstrate that a revised limit is appropriate, the commissioner may provide a reasonable additional period of time, not to exceed five (5) years with which to achieve compliance with the original effluent limitation.

(3) Where a permit is modified to include new or more stringent limitations, on a date within five (5) years of the permit expiration date, such compliance schedules may extend beyond the term of a permit consistent with subsection (b)(1).

(4) If future studies (other than those conducted under this subsection) result in a Tier II value being changed to a less stringent Tier II value or Tier I criterion, after the effective date of a Tier II-based limit, the existing Tier II-based limit may be revised to be less stringent if:

(A) it complies with section 10(11)(B) and 10(11)(C) of this rule and Section 402(o)(2) and 402(o)(3) of the CWA;

(B) in nonattainment waters, the cumulative effect of

the revised effluent limitation will assure compliance with water quality standards; or  
(C) in attained waters, the revised effluent limitation complies with the antidegradation standard and procedures contained under 327 IAC 2-1.5-4 and section 11.3 of this rule.

*(Water Pollution Control Board; 327 IAC 5-2-12.1; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1464; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3380)*

### **327 IAC 5-2-13 Monitoring**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 13. (a) To assure compliance with permit terms and conditions, all permittees shall monitor, as required in the permit, the following:

- (1) The mass, concentration, or other measurement specified in sections 11, 11.1, and 11.6 of this rule for each pollutant specified in the permit.
- (2) The volume of wastewater flow at monitoring points specified in the permit, including the final effluent flow from each point source.
- (3) Other parameters and conditions as specifically required in the permit.

(b) A POTW shall monitor the mass, concentration, or other units of specified pollutants in the raw influent, in the discharge from intermediate unit treatment processes as specified in the permit or the applicable report of operation form, and in the final effluent, and the volume of effluent flow. For purposes of this section and sections 14 through 15 of this rule, a POTW includes a municipality or other political subdivision, such as a regional sewer district, which owns or operates a wastewater treatment works or a treatment plant for public water supply, or a private utility of a quasi-public nature which owns or operates a treatment plant for a mobile home park, a residential development, etc., from which a permitted discharge occurs.

(c) For purposes of subsections (a) and (b), the commissioner shall specify the following monitoring requirements in the permit:

- (1) Requirements concerning proper installation, use, and maintenance of monitoring equipment or methods (including biological monitoring methods where appropriate).
- (2) Monitoring frequency, type, and intervals sufficient to yield continuing data representative of the volume of effluent flow and the quantity of pollutants discharged based on the impact of the waste stream on the receiving water, in accordance with 40 CFR 122.44.
- (3) Test procedures for the analysis of pollutants

meeting the requirements of subsection (d).

(d) Requirements for test procedures shall be as follows:

(1) Test procedures identified in 40 CFR 136 shall be utilized for pollutants or parameters listed in that part, unless an alternative test procedure has been approved under 40 CFR 136.5.

(2) Where no test procedure under 40 CFR 136 has been approved, analytical work shall be conducted in accordance with the most recent edition of "Standard Methods for the Examination of Water and Wastewater", published by the American Public Health Association (APHA) or as otherwise specified by the commissioner in the permit.

(3) Notwithstanding subdivision (1), the commissioner may specify in a permit the test procedure used in developing the data on which an effluent limitations guideline was based, or specified by the standards and guidelines.

(e) The sampling frequency and other monitoring requirements specified by the commissioner under subsection (c) shall, to the extent applicable, be consistent with monitoring requirements specified in a standard or effluent limitations guideline on which the effluent limitations in the permit are based. In no case shall the sampling frequency be less than once per calendar year.

(f) Where composite samples are specified in the permit, each fraction of the composite shall be weighted in proportion to the flow corresponding to the time that sample fraction is taken unless the permittee demonstrates that such flow-weighting of sample fractions is not necessary to obtain representative monitoring results.  
*(Water Pollution Control Board; 327 IAC 5-2-13; filed Sep 24, 1987, 3:00 p.m.: 11 IR 628; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1753; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1465)*

### **327 IAC 5-2-14 Recording of monitoring results**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1; IC 13-7-16-7

**Affected:** IC 13-1-3; IC 13-7

Sec. 14. (a) Any permittee required to monitor under 327 IAC 5-2-13 shall maintain records of all monitoring information and monitoring activities, including:

- (1) the date, exact place and time of sampling or measurements;
- (2) the person(s) who performed the sampling or measurements;
- (3) the date(s) analyses were performed;
- (4) the person(s) who performed the analyses;
- (5) the analytical techniques or methods used; and
- (6) the results of such measurements and analyses.

(b) All records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records) shall be retained by the permittee for three (3) years. The three-year period shall be extended:

- (1) automatically during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or regarding promulgated effluent guidelines applicable to the permittee; or
- (2) as requested by the commissioner.

*(Water Pollution Control Board; 327 IAC 5-2-14; filed Sep 24, 1987, 3:00 pm: 11 IR 629)*

### **327 IAC 5-2-15 Reporting requirements**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-14-4-3; IC 13-18-4

Sec. 15. (a) Permittees shall report to the commissioner, using discharge monitoring reports (DMR) (EPA Form 3320-1) and, also, in the case of POTWs, semipublic, state, and federal facilities' reports of operation, the results of any monitoring specified by the permit, pursuant to section 13 of this rule, as often as required by the permit, but in no case less than once per year. POTWs with pretreatment or hybrid pretreatment requirements in their NPDES permits as well as industrial dischargers shall also submit the results of effluent analysis on the Indiana Discharge Monitoring Report Form 30530.

(b) If the permittee monitors any pollutant more frequently than required by the permit, using approved analytical methods, the results of this monitoring shall be reported in the DMR. Other monitoring data not specifically required in the permit (such as internal process or internal waste stream data) which is collected by or for the permittee need not be submitted unless requested by the commissioner. Any such additional monitoring data which indicates a violation of a permit limitation shall be followed up by the permittee, whenever feasible, with a monitoring sample obtained and analyzed pursuant to approved analytical methods. The results of the analysis of the follow-up sample shall be reported to the commissioner in the permittee's DMR.

(c) All reports required by this section shall be prepared by or under the direction of a certified wastewater treatment plant operator or a certified water treatment plant operator licensed under the provisions of 327 IAC 8 when such reports concern a discharge originating in whole or in part from a wastewater treatment plant or a water treatment plant, respectively, as defined in IC 13-11-2.

(d) As used in this section, "approved analytical methods" means those test procedures for the analysis of pollutants which conform to 40 CFR 136 or are specified in the permit.

(e) NPDES effluent data is to be reported on the monthly DMRs as follows:

(1) Effluent concentrations less than the limit of detection (LOD) shall be reported as less than the value of the LOD. For example, if a substance is not detected at a concentration of one (1.0) milligram per liter, the value shall be reported as < 1.0 mg/l.

(2) Effluent concentrations greater than or equal to the LOD shall be reported at the measured value. Effluent concentrations greater than or equal to the LOD and less than the limit of quantitation (LOQ) that are reported on a DMR shall be annotated on the DMR to indicate that the value is not quantifiable.

(3) Except as provided in section 11.6(h)(3) of this rule, when the individual daily values are averaged for the purpose of determining the weekly average or monthly average, values less than the LOQ shall be accommodated in calculation of the averages using statistical methods that have been approved by the commissioner.

(4) Mass discharge values which are calculated from concentrations reported as less than the value of the limit of detection shall be reported as less than the corresponding mass discharge value.

(5) Mass discharge values that are calculated from effluent concentrations greater than the limit of detection shall be reported at the calculated value.

(6) Except as provided in section 11.6(h)(3) of this rule, when the individual daily mass discharge values are averaged for the purpose of determining the weekly average or monthly average, values less than the LOQ shall be accommodated in calculation of the averages using statistical methods that have been approved by the commissioner.

*(Water Pollution Control Board; 327 IAC 5-2-15; filed Sep 24, 1987, 3:00 p.m.: 11 IR 629; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1754; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1466)*

### **327 IAC 5-2-16 Permit modification, revocation and reissuance, and termination**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 16. (a) An issued permit may be modified, in whole or in part, revoked and reissued, or terminated during its term for cause as specified in this section. Such action may be taken at the commissioner's own initiative or upon the request of any interested person. If the

commissioner determines that cause exists for modification or revocation and reissuance of a permit, an updated application or a pertinent portion of an application may be requested if needed to provide sufficient information to prepare the draft permit.

(b) Causes for modification, revocation and reissuance, or termination of a permit include the following:

- (1) Violation of any term or condition of the permit.
- (2) Failure of the permittee to disclose fully all relevant facts or misrepresentation of any relevant facts by the permittee in the application or during the permit issuance process.
- (3) A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the permit, e.g., plant closure, termination of discharge by connection to a POTW, a change in state law that requires the reduction or elimination of the discharge, or information indicating that the permitted discharge poses a substantial threat to human health or welfare.

(c) In addition to the provisions of subsection (b), causes for modification, or revocation and reissuance, but not termination, of a permit include the following:

- (1) A change in ownership or control of a source which has a permit, where required by the commissioner under section 6(c) of this rule.
- (2) Promulgation of an applicable toxic effluent standard or prohibition under section 307(a)(2) of the CWA for a toxic pollutant which is injurious to human health if that standard or prohibition is more stringent than any limitation in the permit on the toxic pollutant.
- (3) The occurrence of circumstances which meet the conditions for invoking a reopener clause contained in the permit, such as the reopener clause specified under section 8(b)(1)(A) of this rule for primary industrial dischargers.

(d) In addition to the provisions of subsections (b) and (c), a permit may be modified for any of the following causes:

- (1) Material and substantial alterations or additions to the discharger's operation which were not covered in the effective permit, e.g., production changes, relocation or combination of discharge points, changes in the nature or mix of products produced, provided that such alterations do not constitute total replacement of the process or production equipment causing the discharge which converts it into a new source.
- (2) The existence of a factor or factors which, if properly and timely brought to the attention of the commissioner, would have justified the application of limitations, standards, or other requirements different from those imposed by the NPDES permit but only if the requester shows that such factor or factors arose

after the permit was issued or could not reasonably have been known by the requestor prior to issuance of the permit.

(3) Suspension, withdrawal, or revision of a regulation (including an interim final regulation), promulgated by EPA or the board, establishing effluent limitation guidelines, effluent standards, water quality standards, or treatment requirements, but only when such suspension, withdrawal, or revision affects that portion of the regulation which is the basis for the permit term or condition that is requested to be modified or revoked.

(4) Judicial remand and stay of a promulgated effluent limitations guideline, effluent standard, or water quality standard, if the remand concerns that portion of the guideline or standard on which the permit term or condition was based.

(5) The granting by the commissioner of a permittee's request for a modification of, or variance from, effluent limitations as specifically authorized by the CWA, e.g., section 301(c), 301(g), 301(i), or 301(k) or for a fundamentally different factors variance under 327 IAC 5-6.

(6) Failure of the commissioner to notify another state whose waters may be affected by the discharge as required by section 402(b)(3) of the CWA.

(7) Upon request of a permittee who qualifies for effluent limitations on a net basis under section 11(f) of this rule, or upon a determination by the commissioner that a permittee is no longer eligible for net effluent limitations.

(8) When the level of discharge of any toxic pollutant which is not limited in the permit exceeds the level which can be achieved by the technology-based treatment requirements appropriate to the permittee under the CWA (see 327 IAC 5-5-2).

(9) When the permittee begins or expects to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application under 40 CFR 122.53(d)(9), except that this subdivision shall not apply to such a use or manufacture of a toxic pollutant solely under research or laboratory conditions.

(10) A determination by the commissioner that a notification level should be established under section 9(a) of this rule.

(11) A determination by the commissioner that a POTW shall be required to develop a POTW pretreatment program, under one (1) of the circumstances specified in 327 IAC 5-13-2(d) or the approval by the commissioner of:

- (A) a POTW pretreatment program; or
- (B) an application by the POTW for authority to revise, on the basis of consistent removal of a toxic

pollutant by the POTW, discharge limits otherwise applicable to that pollutant under a categorical pretreatment standard.

(12) When otherwise authorized under this rule.

(13) The promulgation by EPA of an effluent limitation guideline that is applicable to the permittee and is less stringent than corresponding technology-based effluent limitations in the permit which were imposed under section 402(a)(1) of the CWA.

(e) The following permit modifications shall not require public notice and opportunity for hearing under 327 IAC 5-3 unless they would render the applicable standards and limitations in the permit less stringent, or unless contested by the permittee:

(1) Correction of typographical errors.

(2) A change requiring more frequent monitoring or reporting by the permittee.

(3) A change in an interim compliance date, but not more than one hundred twenty (120) days beyond the date previously established and not where the change would interfere with the attainment of a final compliance date.

(4) A change in ownership or control of a source which has a permit where no other change in the permit is necessary and where transfer is accomplished under section 6(c) of this rule.

(5) A change in the construction schedule for a discharger which is a new source. No such change shall affect a discharger's obligation to have all pollution control equipment installed and in operation prior to discharge under section 17 of this rule.

(6) Deletion of a point source outfall, where the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with permit limits.

*(Water Pollution Control Board; 327 IAC 5-2-16; filed Sep 24, 1987, 3:00 p.m.: 11 IR 630; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1754)*

### **327 IAC 5-2-17 New sources and new dischargers**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 17. (a) Definitions. "Existing source" means any source which is not a new source or a new discharger.

"Facilities or equipment" means buildings, structures, process or production equipment or machinery which form a permanent part of the new source and which will be used in its operation, provided that such facilities or equipment are of such value as to represent a substantial commitment to construct. It does not include facilities or equipment used in connection with feasibility, engineering, and design studies regarding the source or water

pollution treatment for the source.

"New source" and "new discharger" are defined in 327 IAC 5-1-2 [327 IAC 5-1-2 was repealed filed Jan 14, 1997, 12:00 p.m.: 20 IR 1479.].

"Site" means the land or water area upon which a source and its water pollution control facilities are physically located, including but not limited to adjacent land used for utility systems, repair, storage, shipping or processing areas, or other areas incident to the industrial, manufacturing, or water pollution treatment processes.

"Source" means any building, structure, facility, or installation from which there is or may be a discharge of pollutants.

(b) Criteria for new source determination.

(1) Construction of a new source has commenced if the owner or operator has:

(A) Begun, or caused to begin as part of a continuous on-site construction program:

(i) any placement, assembly, or installation of facilities or equipment; or

(ii) significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

(B) Entered a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this subsection.

(c) Effect of compliance with new source performance standards.

(1) Except as provided in subdivision (2), any new source which meets the applicable promulgated new source performance standards from the commencement of discharge, shall not be subject to any more stringent new source performance standards, or to any more stringent technology-based standards under section 301(b)(2) of the CWA for the shortest of the following periods:

(A) ten (10) years from the date that construction is completed;

(B) ten (10) years from the date the source begins to discharge process wastewater or other wastewater not related to construction; or

(C) the period of depreciation or amortization of the facility for the purposes of Section 167 or 169 (or both) of the Internal Revenue Code.

(2) The protection from more stringent standards of performance afforded by subdivision (1) does not

apply to:

(A) additional or more stringent permit conditions which are not technology-based, e.g., conditions based on water quality standards, or effluent standards or prohibitions under section 307(a) of the CWA; and

(B) additional technology-based permit conditions established under 327 IAC 5-5-2(b) to control pollutants listed as toxic under section 307(a) of the CWA or as hazardous substances under section 311 of the CWA and which are not controlled by new source performance standards. This includes permit conditions controlling pollutants other than those identified as toxic or hazardous where control of those other pollutants has been specifically identified as the method to control the toxic or hazardous pollutant.

(3) Where an NPDES permit issued to a source enjoying a "protection period" under subdivision (1) will expire on or after the expiration of the protection period, such permit shall require the owner or operator of the source to be in compliance with the requirements of section 301 of the CWA and any other then applicable requirements of the CWA immediately upon the expiration of the protection period. No additional period for achieving compliance with these requirements shall be allowed.

(4) The owner or operator of a new source, a new discharger, a source recommencing discharge after terminating operations, or a source which had been an indirect discharger which commences discharging into navigable waters shall install and have in operating condition, and shall "start-up" all pollution control equipment required to meet the terms and conditions of its permit before beginning to discharge. Within the shortest feasible time (not to exceed ninety (90) days), the owner or operator must meet all permit terms and conditions.

(5) After the effective date of new source performance standards, it shall be unlawful for any owner or operator of any new source to operate such source in violation of those standards applicable to such source.

*(Water Pollution Control Board; 327 IAC 5-2-17; filed Sep 24, 1987, 3:00 pm: 11 IR 631)*

### **327 IAC 5-2-18 Basic NPDES requirements; public access to information**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 5-14-3; IC 13-14-11

Sec. 18. (a) All:

- (1) permit applications;
- (2) effluent data;

(3) certifications issued under section 401 of the CWA;

(4) public comments (including comments of all governmental agencies) submitted under 327 IAC 5-3-9 on a draft permit;

(5) general correspondence;

(6) permits (drafts and final);

(7) statements of basis (briefing memos); and

(8) fact sheets;

shall be available to the public for inspection and copying at a reasonable charge without restriction.

(b) Public access to other information submitted to the commissioner under the NPDES program, under a claim of confidentiality, shall be governed by 327 IAC 12.1. *(Water Pollution Control Board; 327 IAC 5-2-18; filed Sep 24, 1987, 3:00 p.m.: 11 IR 632; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1756; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1630)*

### **327 IAC 5-2-19 Transmission of information to EPA**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 19. (a) The commissioner shall transmit to the regional administrator copies of NPDES program forms and any other relevant information to the extent and in the manner agreed to in the memorandum of agreement between the commissioner and EPA.

(b) Any other information obtained or used pursuant to the state NPDES program shall be available to EPA upon request without restriction.

(c) Any information which has been submitted to the commissioner under a claim of confidentiality and is subsequently transmitted to EPA under subsections (a) or (b) will be subject to EPA regulations concerning business confidentiality (40 CFR Part 2). *(Water Pollution Control Board; 327 IAC 5-2-19; filed Sep 24, 1987, 3:00 pm: 11 IR 632)*

### **327 IAC 5-2-20 Enforcement**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 20. (a) Any violation of this article:

(1) may subject the person causing or contributing to said violation to administrative or judicial enforcement proceedings, pursuant to IC 13-7-5, IC 13-7-11, and the penalties provided under IC 13-7-13;

(2) may be cause, pursuant to section 16 of this rule, for modification, revocation and reissuance, or termination of an NPDES permit; and

(3) may, in an appropriate case, warrant the invocation of emergency procedures provided in IC 13-7-12.

(b) The three (3) enforcement responses enumerated in subsection (a) are independent and not mutually exclusive. Thus the initiation and prosecution of any particular response to a violation of this article does not exclude the concurrent or subsequent initiation of any other response.

(c) For purposes of this section, a “violation of this article” shall include, but not be limited to:

- (1) the discharge of pollutants without an NPDES permit or in violation of any effluent limitation in an NPDES permit;
- (2) the violation of any other term or condition of an NPDES permit;
- (3) failure to comply with NPDES application requirements under section 3 of this rule or 327 IAC 5-3; or
- (4) failure to allow entry, inspection, and monitoring by the commissioner when requested in accordance with applicable law or to carry out monitoring, recording, and reporting required under this article.

*(Water Pollution Control Board; 327 IAC 5-2-20; filed Sep 24, 1987, 3:00 p.m.: 11 IR 632; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1756)*

### **327 IAC 5-2-21 Fees (Repealed)**

Sec. 21. *(Repealed by Water Pollution Control Board; filed Sep 26, 1997, 3:55 p.m.: 21 IR 372)*

### **327 IAC 5-2-22 Signatories to permit applications and reports**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 22. (a) All permit applications shall be signed as follows:

- (1) The following for a corporation by a responsible corporate officer:
  - (A) For purposes of this section, “a responsible corporate officer” means either of the following:
    - (i) A president, secretary, treasurer, any vice president of the corporation in charge of a principal business function, or any other person who performs similar policymaking or decision making functions for the corporation.
    - (ii) The manager of one (1) or more manufacturing, production, or operating facilities employing more than two hundred fifty (250) persons or having gross annual sales or expenditures exceeding twenty-five million dollars (\$25,000,000) (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
  - (B) For purposes of this section, a principal executive officer of a federal agency includes the follow-

ing:

- (i) The chief executive officer of the agency.
  - (ii) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
- (2) For a partnership or sole proprietorship by a general partner or the proprietor, respectively.
  - (3) For a municipality, state, federal, or other public agency or political subdivision thereof by either a principal executive officer or ranking elected official.
- (b) All reports required by permits and other information requested by the commissioner shall be signed by a person described in subsection (a), or by a duly authorized representative of that person. A person is a duly authorized representative only if the authorization meets the following requirements:

- (1) The authorization is made in writing by a person described in subsection (a).
- (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
- (3) The written authorization is submitted to the commissioner.

(c) If an authorization under subsection (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of subsection (b) must be submitted to the commissioner prior to or together with any reports, information, or applications to be signed by an authorized representative.

(d) Any person signing a document under subsection (a) or (b) shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

*(Water Pollution Control Board; 327 IAC 5-2-22; filed Sep 24, 1987, 3:00 p.m.: 11 IR 633; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1756)*

### 327 IAC 5-2-23 Primary industrial point source categories

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 23. Primary industrial point source categories include the following:

Adhesives	Aluminum Forming
Auto and Other Laundries	Battery Manufacturing
Coal Mining	Coil Coating
Copper Forming	Electric and Electronic Components
Electroplating	Explosives Manufacturing
Foundries	Gum and Wood Chemicals
Inorganic Chemicals	Iron & Steel
Leather Tanning and Finishing	Mechanical Products
Nonferrous Metals	Ore Mining
Organic Chemicals	Paint and Ink
Pesticides	Petroleum Refining
Pharmaceuticals	Photographic Supplies
Plastic and Synthetic Materials	Plastics Processing
Porcelain Enameling	Printing and Publishing
Pulp and Paper Mills	Rubber Processing
Soaps and Detergents	Steam Electric Power Plants
Textile Mills	Timber Products

(*Water Pollution Control Board; 327 IAC 5-2-23; filed Sep 24, 1987, 3:00 pm: 11 IR 634*)

### Rule 2.1. Combined Sewer Overflow Public Notification

327 IAC 5-2.1-1	Purpose
327 IAC 5-2.1-2	Applicability
327 IAC 5-2.1-3	Definitions
327 IAC 5-2.1-4	CSO notification procedure
327 IAC 5-2.1-5	Notification
327 IAC 5-2.1-6	Community notification methods
327 IAC 5-2.1-7	Record keeping and reporting

#### 327 IAC 5-2.1-1 Purpose

**Authority:** IC 13-14-1-5; IC 13-14-8; IC 13-14-9; IC 13-18-4-1  
**Affected:** IC 13-18-3

Sec. 1. The purpose of this rule concerning community notification of potential health impacts resulting from a combined sewer overflow discharge is to promote and accomplish the following:

- (1) Educate the public, in general, and those persons who, specifically, may come into contact with water that may be affected by a combined sewer overflow discharge as to the health implications possible from combined sewer overflow discharge tainted water.

(2) Alert members of the public who may be immediately affected by a combined sewer overflow discharge or the potential for a combined sewer overflow discharge to occur.

(3) Enable members of the public to protect themselves from possible exposure to waterborne pathogens resulting from contact with or ingestion of water from a waterway that may be affected by a combined sewer overflow discharge.

(4) Complement the combined sewer overflow discharge requirements contained in a National Pollutant Discharge Elimination System (NPDES) permit but not obviate or supersede any more stringent requirements contained in an NPDES permit.

(*Water Pollution Control Board; 327 IAC 5-2.1-1; filed Apr 9, 2003, 2:55 p.m.: 26 IR 2613*)

#### 327 IAC 5-2.1-2 Applicability

**Authority:** IC 13-14-1-5; IC 13-14-8; IC 13-14-9; IC 13-18-4-1  
**Affected:** IC 13-18-3

Sec. 2. Any person required to possess a National Pollutant Discharge Elimination System (NPDES) permit and having one (1) or more combined sewer overflow outfalls into waters of the state must comply with this rule. (*Water Pollution Control Board; 327 IAC 5-2.1-2; filed Apr 9, 2003, 2:55 p.m.: 26 IR 2613*)

#### 327 IAC 5-2.1-3 Definitions

**Authority:** IC 13-14-1-5; IC 13-14-8; IC 13-14-9; IC 13-18-4-1  
**Affected:** IC 13-11-2-158; IC 13-11-2-265; IC 13-18-3

Sec. 3. The following definitions apply throughout this rule:

(1) "Affected public" means those persons who may be exposed to waterborne pathogens through direct contact with or ingestion of water affected by a combined sewer overflow discharge and is limited to:

- (A) residents on or adjacent to affected waters;
- (B) public and private schools on or adjacent to affected waters;

(C) owners or operators of facilities that provide access to or recreational opportunities in or on affected waters; and

(D) owners or operators of public drinking water systems with surface intakes in or on affected waters.

(2) "Affected waters" means those waters where the E. coli criteria may be exceeded due to a combined sewer overflow discharge.

(3) "Combined sewage" means a combination of wastewater, including domestic, commercial, or industrial wastewater and storm water transported in a

combined sewer.

(4) “Combined sewer overflow community” or “CSO community” means a recipient of a National Pollutant Discharge Elimination System (NPDES) permit that includes one (1) or more combined sewer overflow outfalls.

(5) “Combined sewer overflow discharge” or “CSO discharge” means the discharge of combined sewage from an overflow point listed in an NPDES permit.

(6) “Combined sewer overflow outfall” or “CSO outfall” means a structure that:

(A) conveys combined sewage into a receiving waterbody; and

(B) is listed in an NPDES permit.

(7) “Combined sewer system” means a system that:

(A) is designed, constructed, and used to receive and transport combined sewage to a publicly owned wastewater treatment plant; and

(B) may contain one (1) or more combined sewer overflow outfalls that discharge sewage when the hydraulic capacity of the wastewater treatment plant, combined sewer system, or part of the system is exceeded as a result of a wet weather event.

(8) “Commissioner” means the commissioner of the department of environmental management.

(9) “Department” means the department of environmental management except as specifically referenced in this rule.

(10) “Person” has the meaning set forth at IC 13-11-2-158.

(11) “Waters of the state” has the meaning set forth for “waters” at IC 13-11-2-265.

*(Water Pollution Control Board; 327 IAC 5-2.1-3; filed Apr 9, 2003, 2:55 p.m.: 26 IR 2613)*

### **327 IAC 5-2.1-4 CSO notification procedure**

**Authority:** IC 13-14-1-5; IC 13-14-8; IC 13-14-9; IC 13-18-4-1  
**Affected:** IC 13-18-3

Sec. 4. (a) A CSO community shall:

(1) develop a CSO notification procedure that meets the requirements of this rule; and

(2) incorporate the CSO notification procedure into its CSO operational plan.

(b) A CSO notification procedure must include the following information at a minimum:

(1) Determination of affected waters for the purpose of providing community notification according to section 5 of this rule.

(2) Locations of:

(A) the CSO outfalls;

(B) public access points including boat launches and bridges located on affected waters; and

(C) parks, school yards, parkways, and greenways on or adjacent to affected waters.

(3) Locations of drinking water suppliers having surface water intakes located within ten (10) river miles downstream of each CSO outfall within the CSO community’s jurisdiction.

(4) Method, according to section 6 of this rule, that shall be used to provide notification to the affected public within the area of each affected water.

(5) Assignment of responsibilities within a CSO community for implementing the CSO notification procedure.

(c) A CSO notification procedure must be:

(1) submitted to the commissioner for review six (6) months after the effective date of this rule;

(2) included in the community’s CSO operational plan;

(3) in the initial stages of implementation by the CSO community upon submission according to subdivision (1);

(4) fully implemented no later than ninety (90) days after the date of submission according to subdivision (1); and

(5) modified in order to ensure that the procedure is consistent with this rule if either of the following occurs:

(A) The commissioner requests such modification within six (6) months of the date of submission of the notification procedure.

(B) A member of the affected public requests that the department reevaluate the notification procedure.

*(Water Pollution Control Board; 327 IAC 5-2.1-4; filed Apr 9, 2003, 2:55 p.m.: 26 IR 2614)*

### **327 IAC 5-2.1-5 Notification**

**Authority:** IC 13-14-1-5; IC 13-14-8; IC 13-14-9; IC 13-18-4-1  
**Affected:** IC 13-18-3

Sec. 5. (a) A CSO community shall provide notification to:

(1) affected public;

(2) other persons within the CSO community who request to be notified in response to the public notice required by section 6(a)(1) of this rule; and

(3) local health departments and drinking water suppliers having surface water intakes located within ten (10) river miles downstream of each CSO outfall experiencing or about to experience a CSO discharge.

(b) The notification must be appropriately worded to explain the nature of the potential health effects of a CSO discharge and steps that affected persons can take to avoid exposure.

(c) Unless specifically required in this rule, a CSO community is not responsible for confirming that the

intended recipients of the notification required by subsection (a) received the notification.

(d) Notification must be provided whenever information from a reliable source indicates that:

- (1) a discharge or discharges from one (1) or more combined sewer overflow outfalls is occurring; or
- (2) a discharge or discharges from one (1) or more combined sewer overflow outfalls is imminent based on predicted or actual precipitation or a related event.

(e) If a CSO discharge occurred and notification was not provided according to subsection (d), the CSO community shall report this fact on the monthly report required according to section 7(a) of this rule. (*Water Pollution Control Board; 327 IAC 5-2.1-5; filed Apr 9, 2003, 2:55 p.m.: 26 IR 2614*)

### **327 IAC 5-2.1-6 Community notification methods**

**Authority:** IC 13-14-1-5; IC 13-14-8; IC 13-14-9; IC 13-18-4-1  
**Affected:** IC 13-18-3

Sec. 6. (a) A CSO community shall do the following unless alternative procedures are identified by the community that are equivalently effective:

- (1) Provide public notice in a newspaper of general circulation in March of each year to allow the following to request receipt of CSO notification:

- (A) Media sources, such as newspapers, television, or radio.
- (B) Affected public.
- (C) Other interested persons in the CSO community.

- (2) Provide notification to those identified under subdivision (1) who request receipt of CSO notification under subdivision (1):

(A) when a CSO discharge is occurring or is imminent based on predicted or actual precipitation or a related event; and

(B) in a manner that is mutually agreeable to the recipient and the CSO community.

If the recipient and CSO community do not reach agreement on an acceptable manner of notification, then the CSO community shall provide notice by a reasonable, effective means.

(b) In addition to the requirements of subsection (a), a CSO community shall post a prominent sign within the CSO community's jurisdiction:

- (1) at access points to an affected water, including boat ramps, bridges, parks, and school yards;
- (2) along parkways and greenways on or adjacent to affected waters at locations most likely to provide notification to persons who may come into direct contact with the water based on information available to the CSO community; and
- (3) with the language printed in English or any other

language common in the locale (including the language necessary to fill in the blanks) that states or is equal in meaning to the following: "Caution—Sewage or Wastewater pollution. Sewage or Wastewater may be in this water during and for several days after periods of rainfall or snow melt. People who swim in, wade in, or ingest this water may get sick. For more information, please call [insert local sewer authority, telephone number, and, if available, a Web site address]."

(c) Cautionary combined sewer overflow signs posted prior to the effective date of this rule advising that combined sewer overflows may occur at that point do not need to be replaced specifically to comply with the wording of subsection (b)(3). If, however, a cautionary combined sewer overflow sign existing prior to the effective date of this rule does need replacement due to reasons such as weathering or other reasons for replacement, then the replacement sign must comply with the language suggested in subsection (b)(3).

(d) If an access point to an affected water is located on private property or property outside a CSO community's jurisdiction, then a CSO community shall:

- (1) annually offer to provide the sign required under subsection (b) for the owner or operator of the private or nonjurisdictional property; and
- (2) not be required to provide the sign required under subsection (b) provided the private or nonjurisdictional property owner or operator has refused the community's offer made according to subdivision (1).

(*Water Pollution Control Board; 327 IAC 5-2.1-6; filed Apr 9, 2003, 2:55 p.m.: 26 IR 2615*)

### **327 IAC 5-2.1-7 Record keeping and reporting**

**Authority:** IC 13-14-1-5; IC 13-14-8; IC 13-14-9; IC 13-18-4-1  
**Affected:** IC 13-18-3

Sec. 7. (a) A CSO community shall document its public notification efforts on its monthly CSO discharge monitoring report (DMR).

(b) A CSO community shall maintain a record of reports submitted according to subsection (a) that is:

- (1) kept at the wastewater treatment plant; and
- (2) available to the commissioner's representatives during the department's normal working hours.

(*Water Pollution Control Board; 327 IAC 5-2.1-7; filed Apr 9, 2003, 2:55 p.m.: 26 IR 2615*)

## **Rule 3. Procedures for the Issuance of NPDES Permits**

327 IAC 5-3-1	Purpose
327 IAC 5-3-2	Application requirements
327 IAC 5-3-3	Requests for modification, revocation and reissuance, or termination

327 IAC 5-3-4	Time deadlines for applications for statutory modifications of and variances from effluent limitations
327 IAC 5-3-4.1	Determination on variances from water quality standards and effluent limitations based on such variances; procedures
327 IAC 5-3-5	Permits required on a case-by-case basis
327 IAC 5-3-6	Tentative permit decisions and draft permits
327 IAC 5-3-7	Statement of basis
327 IAC 5-3-8	Fact sheet
327 IAC 5-3-9	Public comments and public hearings
327 IAC 5-3-10	Terms requested by the corps of engineers and other governmental agencies
327 IAC 5-3-11	Reopening of the comment period
327 IAC 5-3-12	Public notice of comment period; public hearings concerning permit determinations
327 IAC 5-3-13	Special procedures for decisions on thermal issues
327 IAC 5-3-14	Issuance and effective date of a permit
327 IAC 5-3-15	Response to comments
327 IAC 5-3-16	Judicial review

### 327 IAC 5-3-1 Purpose

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 1. This rule (327 IAC 5-3) prescribes procedures for the issuance of NPDES permits by the commissioner. For purposes of this rule (327 IAC 5-3), "issuance" includes the issuance, denial, modification, revocation and reissuance, or termination of an NPDES permit. The respective roles of the agency and EPA in the issuance of permits are defined to the extent necessary for clarification. Generally, the issuance of an NPDES permit involves the following steps:

- (1) the preparation and submission of an application by the person proposing a discharge;
- (2) the preparation of a draft permit by the commissioner;
- (3) the establishment of a public comment period during which the public may comment on the draft permit;
- (4) after, or concurrent with, consideration of public comment, the submission by the commissioner of a proposed permit to EPA for concurrence where necessary;
- (5) the issuance of a permit; and
- (6) the conducting of an adjudicatory hearing, when properly requested, on objections to the permit.

*(Water Pollution Control Board; 327 IAC 5-3-1; filed Sep 24, 1987, 3:00 pm: 11 IR 634; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### 327 IAC 5-3-2 Application requirements

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 2. (a) Persons currently discharging pollutants under an existing NPDES permit shall submit a new application:

(1) Under subsection (b) where facility expansions, production increases, or process modifications will:

(i) result in new or substantially increased discharges of pollutants or a change in the nature of the discharge of pollutants; or

(ii) violate the terms and conditions of the existing permit.

(2) At least one hundred eighty (180) days prior to the expiration date of the existing permit, unless a later date is allowed by the commissioner.

(b)(1) A person proposing a new discharge of pollutants shall submit an application at least one hundred eighty (180) days before the date on which the discharge is to commence, unless a later date is allowed by the commissioner.

(2) Persons planning to operate a facility which is a new source or a new discharger and which may fall within the coverage of an existing general permit shall submit an NPDES application under this section and state that such existing general permit may cover the facility's discharge. The commissioner will review the application and, if he concludes that the applicant's proposed discharge falls within the coverage of the general permit, he will so notify the applicant of that fact and suspend further processing of the application. If the general permit does not apply to the applicant's proposed discharge, the commissioner shall process the application as for an individual NPDES permit.

(c) All applications required under this section shall be completed in accordance with 327 IAC 5-2-3 and applicable instructions, signed pursuant to 327 IAC 5-2-22, and submitted with the appropriate fee to the department of environmental management.

(d) Except for decisions to modify, revoke and reissue, or terminate a permit, no NPDES permit other than a general permit shall be issued until the applicant has filed a complete application that complies with the filing requirements in this rule (327 IAC 5-3). If an applicant fails or refuses to correct deficiencies in its NPDES application form, the permit may be denied or appropriate enforcement action may be taken under 327 IAC 5-2-20.

(e) If the commissioner determines that further information or a site visit is necessary in order to evaluate the discharge completely and accurately, the applicant shall be notified and a date shall be scheduled for receipt of the requested information and for any necessary site visit.

(f) Special procedures for applications for variances and statutory modifications are provided in 327 IAC 5-3-4 and 327 IAC 5-3-13.

(g) In the case of a person discharging or proposing to

discharge pollutants from more than one point source, an appropriate application form shall be submitted for each point source discharge. (*Water Pollution Control Board; 327 IAC 5-3-2; filed Sep 24, 1987, 3:00 pm: 11 IR 634; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-3-3 Requests for modification, revocation and reissuance, or termination**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 3. (a) If a discharger with a permit or an interested person believes that a modification, revocation and reissuance, or termination of a permit is justified under the standards of 327 IAC 5-2-16, he may request such action on the permit from the commissioner in writing. The request shall set forth all facts or reasons known to the requester which may be relevant to a decision thereon.

(b) If the commissioner agrees, as a result of a request, that the modification, revocation and reissuance, or termination of a permit is warranted, the commissioner shall formulate a draft permit under 327 IAC 5-3-6.

(c) If the commissioner decides that a request submitted under subsection (a) does not appear to meet the requirements of 327 IAC 5-2-16, the commissioner shall reply in writing to the discharger (and the person making the request, if different) briefly setting forth in writing the reasons for that decision. Such denials of requests for modification, revocation, and reissuance, or termination of a permit are not subject to the public notice, comment, and public hearing provisions of this rule (327 IAC 5-3). (*Water Pollution Control Board; 327 IAC 5-3-3; filed Sep 24, 1987, 3:00 pm: 11 IR 635; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-3-4 Time deadlines for applications for statutory modifications of and variances from effluent limitations**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 4. (a) Except as provided in subsection (d), applications for variances from and modification of effluent limitations under the statutory and regulatory provisions of the CWA shall be made as provided in subsections (b) and (c).

(b) The following are requirements for dischargers other than publicly owned treatment works:

(1) A request for a variance based on the presence of factors fundamentally different (40 CFR 125.30) from

those on which the effluent limitations guideline was based, shall be made by the earlier of the following dates:

(A) The close of the public comment period provided under section 9 of this rule.

(B) One hundred eighty (180) days after the date on which a national effluent limitation guideline is established or revised by the administrator.

The request shall explain why the requirements of section 9(c) of this rule and 327 IAC 5-6 have been met.

(2) A request for a variance from the BAT requirements for pollutants subject to section 301(b)(2)(F) of the CWA (commonly called nonconventional pollutants) pursuant to section 301(c) of the CWA because of the economic capability of the owner or operator or pursuant to section 301(g) of the CWA (provided however that a section 301(g) variance may only be requested for ammonia, chlorine, color, iron, total phenols (4AAP) (when determined by the administrator to be a pollutant covered by section 301(b)(2)(F) of the CWA) and any other pollutants which the administrator lists under section 301(g)(4) of the CWA) must be made as follows:

(A) Submitting an initial application to the regional administrator and the commissioner stating the name of the applicant, the permit number, the outfall number(s), the applicable effluent guideline, and whether the applicant is applying for a modification pursuant to section 301(c) or 301(g) of the CWA, or both. This application shall have been or shall be filed not later than the date established by the CWA, which is:

(i) September 25, 1978, for a pollutant which is controlled by a BAT effluent limitation guideline promulgated before December 27, 1977; or

(ii) two hundred seventy (270) days after promulgation of an applicable effluent limitation guideline for guidelines promulgated after December 27, 1977.

(B) Submitting a completed request no later than the close of the public comment period under section 9 of this rule demonstrating that the requirements of section 9(c) of this rule and the applicable requirements of 40 CFR 125, Subpart E or F, have been met. Notwithstanding this provision, the completed application for a request under section 301(g) of the CWA shall be filed one hundred eighty (180) days before EPA must make a decision (unless the regional division director establishes a shorter or longer period).

(C) For those requests for a variance from effluent limitations based on other than effluent limitation

guidelines, the request shall comply only with clause (B) and need not be preceded by an initial application under clause (A).

(3) An extension under section 301(k) of the CWA from the statutory deadlines of section 301(b)(2)(A) of the CWA for BAT or section 301(b)(2)(E) of the CWA for BCT, based on the use of innovative technology may be requested no later than the close of the public comment period for the discharger's initial permit requiring compliance with best available technology or best conventional pollutant control technology. The request shall demonstrate that the requirements of section 9(c) of this rule and 40 CFR 125, Subpart C, have been met.

(4) A modification, under section 302(b)(2) of the CWA, of water quality related effluent limitations proposed under section 302(a) of the CWA may be requested no later than the close of the public comment period on the draft permit in which said effluent limitations are proposed or at the public hearing required under section 302(b)(1) of the CWA.

(5) The following are requirements for thermal effluent limitations:

(A) An original request for alternate thermal effluent limitations for the thermal component of any discharge under section 316(a) of the CWA in lieu of promulgated effluent limitation guidelines must be filed with a timely permit application required under section 2 of this rule.

(B) If thermal effluent limitations are proposed in the draft permit, pursuant to section 402(a)(1) of the CWA (see 327 IAC 5-5-2(b)(2)) or water quality standards, and the proposed limitations are in the absence of, or are more stringent than, promulgated effluent limitation guidelines, the original request for alternate thermal effluent limitations shall be filed, or modified if deemed necessary, by the close of the public comment period for the draft permit.

(C) A request for a renewal of alternate thermal effluent limitations shall, in every case, be filed with a timely application for permit reissuance.

(D) The request for alternate thermal effluent limitations shall include the information specified by 327 IAC 5-7.

(c) The following are requirements for publicly owned treatment works:

(1) Section 301(i)(1) of the CWA requires that an extension of the statutory deadlines in section 301(b)(1)(B) or 301(b)(1)(C) of the CWA based on delay in the construction of publicly owned treatment works must have been requested on or before August 3, 1987.

(2) A modification under section 302(b)(2) of the

CWA of water quality related effluent limitations proposed under section 302(a) of the CWA may be requested no later than the close of the public comment period on the draft permit in which said effluent limitations are proposed or at the public hearing required under section 302(b)(1) of the CWA, whichever is earlier.

(d) Notwithstanding any later time specified in subsections (b) and (c), the commissioner may notify the applicant before a draft permit is published pursuant to section 12 of this rule that the draft permit will likely contain limitations which are eligible for variances or modifications. In such notice the commissioner may require the applicant as a condition of consideration of any potential variance request to submit, within a specified reasonable time, after receipt of the notice, a statement explaining how the criteria and other requirements of this rule applicable to the variance or modification have been met. This notice may be sent before the application under section 2 of this rule has been submitted.

(e) A discharger who cannot file a timely, complete request required under subsection (b)(2)(B), (b)(2)(C), (b)(3), (b)(4), (b)(5), or (c)(2) may request an extension to apply. Extensions shall be limited to the time the commissioner determines is necessary to satisfy the requirements of the appropriate regulations but shall be no more than six (6) months in duration. The request may be granted or denied in the discretion of the commissioner. (*Water Pollution Control Board; 327 IAC 5-3-4; filed Sep 24, 1987, 3:00 p.m.: 11 IR 635; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1757; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-3-4.1 Determination on variances from water quality standards and effluent limitations based on such variances; procedures**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-15-4-3; IC 13-18-3

**Affected:** IC 4-21.5-3; IC 13-11-2-132; IC 13-15-4-1; IC 13-15-5; IC 13-15-6; IC 13-18-4; IC 13-18-7; IC 13-23-13; IC 13-24-1; IC 13-25-5

Sec. 4.1. (a) The commissioner shall consider and make a written determination on a request for a variance from a water quality standard as provided in 327 IAC 2-1-8.8 or 327 IAC 2-1.5-17.

(b) Requirements for a variance application shall be as follows:

(1) An application for a variance for a substance may be submitted at any time during the period beginning on the date an application is submitted for the issuance, reissuance, or modification of a NPDES permit and

ending ninety (90) days following the effective date of the new, renewed, or modified NPDES permit, when the WQBEL for the substance will be or is more restrictive in the renewed, or modified NPDES permit than in the existing permit. The applicant may petition the commissioner for up to an additional ninety (90) day period to submit an application for a variance. If the variance application is submitted prior to the issuance, reissuance, or modification date of the permit, the permit limitations for a substance for which a variance application is submitted will not be issued until such time that the commissioner makes the variance determination. Notwithstanding these time frames and procedures, an applicant that is seeking a variance from a water quality standard used to derive a WQBEL contained in an issued or modified NPDES permit must appeal the issuance of the permit or modification in accordance with IC 4-21.5 and IC 13-15-6, if applicable, if the variance request is submitted after the issuance date of the permit to be eligible for a stay of the WQBELs for the substance for which the variance is being requested.

(2) The complete variance application shall contain the information that the commissioner determines to be necessary to satisfy the requirements contained in 327 IAC 2-1-8.8 or 327 IAC 2-1.5-17. The application shall contain the following:

(A) Except for variances governed under clause (B), the variance application shall contain the following:

(i) An identification of control methodologies in practice for similar waste streams and processes by similar facilities which achieve a level of control greater than the level currently achieved by the applicant, including those determined by the applicant not to be technically feasible for the applicant. Pollution prevention measures may be identified and submitted as part of the application. As used in this section, "pollution prevention" means changes in production process technologies, materials, processes, operations, or procedures to reduce or eliminate the source of the pollutant.

(ii) An identification, listed under item (i), of the methodologies determined by the applicant not to be technically feasible and documentation supporting infeasibility.

(iii) A ranking of those feasible methodologies from greater to lesser overall control effectiveness by:

(AA) the reduction in pollutant concentrations; and

(BB) the reduction in loadings (percent pollutant removed).

(iv) An evaluation for each feasible methodology that includes reasonably foreseeable:

(AA) adverse or beneficial environmental impacts resulting from the proposed methodology, including net impacts on the receiving water;

(BB) impacts to the aquatic community, wildlife, and plant life;

(CC) impacts on rare, threatened, or endangered species;

(DD) impacts resulting from the discharge of toxic contaminants;

(EE) energy impacts (BTU and kWh);

(FF) risks to human health; and

(GG) impacts to other media, including air or land.

(v) For a facility required to obtain a municipal permit as defined in IC 13-11-2-132, an evaluation for each feasible methodology that includes the following:

(AA) An affordability analysis of total and annualized costs that measures the financial impact of the methodology on the user fees and taxes imposed on the residential and nonresidential users paying for the methodology, using, at a minimum, appropriate measures of debt and financial management conditions in the community.

(BB) The economic impacts, including the total cost and cost effectiveness of pollutant removal of the methodology.

(CC) The ability of ratepayers within the community to afford the added costs.

(DD) The ability of the public facility to obtain debt financing.

(vi) For a facility required to obtain a NPDES permit that is not a municipal permit as defined in IC 13-11-2-132, an evaluation for each feasible methodology that includes the following:

(AA) An affordability analysis of total and annualized costs that measures the financial impact of the methodology to determine whether the facility can afford the methodology based upon reasonable measures of financial health and available capital.

(BB) The economic impacts, including the total cost and cost effectiveness of pollutant removal of the methodology.

(CC) The impact of costs on applicant's goods or services.

(DD) Information regarding the relative price of goods or services in the same market as the applicant.

(EE) The overall impact of the application of the methodology on employment within the facility.

(vii) An explanation of why information sought

under items (i) through (vi) is not necessary or appropriate for inclusion in the specific variance application.

(viii) Any other relevant information requested by the commissioner.

(B) The following procedures shall be used to evaluate variance applications for discharges that occur as a result of actions listed in item (i):

(i) The procedures in this clause apply to an applicant that requests a variance from a water quality standard used to derive a water quality-based effluent limitation (WQBEL) contained in an NPDES permit for a specific substance where the necessity for the variance is a short term, temporary discharge resulting from the dredging of contaminated sediments from a waterbody, and is any of the following:

(AA) A response action pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) as amended.

(BB) A corrective action pursuant to the Resource Conservation and Recovery Act (RCRA) as amended.

(CC) An action pursuant to similar federal or state authorities, including, but not limited to, the following:

(aa) An underground storage tank (UST) corrective action under IC 13-23-13.

(bb) A remediation of petroleum releases under IC 13-24-1.

(cc) A voluntary remediation under IC 13-25-5.

(dd) An abatement or correction of any polluted condition under IC 13-18-7.

(ii) The application for a variance requested under this clause shall contain the following:

(AA) Identification of the substance for which a variance is being requested and information documenting the concentrations of the substance projected to be present in the discharge.

(BB) Document predredging environmental conditions.

(CC) Document the expected environmental benefits of the project.

(DD) Identification of the methodologies that potentially could be used to reduce the concentration of the substance in the discharge or eliminate the need for variance. Methodologies to be evaluated shall include, but not be limited to:

(aa) relocation of the discharge location;

(bb) discharge to a POTW;

(cc) alternate dredging methodologies; or

(dd) control methodologies used in practice for similar wastestreams.

(EE) An identification of the methodologies identified under subitem (DD) determined by the applicant not to be technically feasible and documentation supporting the infeasibility.

(FF) A ranking of those feasible methodologies from greater to lesser effectiveness by:

(aa) the reduction in pollutant concentrations; and

(bb) the increase in percent removal.

(GG) An evaluation for each feasible methodology that includes reasonably foreseeable adverse or beneficial environmental impacts resulting from the methodology, including the net impacts on the receiving water. This evaluation shall include:

(aa) impacts to the aquatic community, wildlife, and plant life;

(bb) impacts on rare, threatened, or endangered species;

(cc) impacts resulting from the discharge of toxic contaminants;

(dd) energy impacts (BTU and kWh);

(ee) risks to human health; and

(ff) impacts to other media, including air or land.

(HH) Documentation of the costs associated with implementing each feasible methodology.

(II) Upon request by the applicant, the commissioner may determine that one (1) or more of the requirements in subitems (AA) through (HH) is not necessary or appropriate for inclusion in the variance application. This request submitted by the applicant shall explain why such information is not necessary or appropriate for inclusion.

(JJ) Any other relevant information requested by the commissioner.

(c) Upon receipt of a variance application, the commissioner shall provide notice, request comment, and, if requested, schedule and hold a public meeting on the application in accordance with 327 IAC 5-2-11.2.

(d) After the receipt of a variance application, the commissioner shall specify in writing any additional relevant information which is deemed necessary to make a determination on the variance request. Such additional information shall be submitted by the applicant within forty-five (45) days after the receipt of the commissioner's request. The applicant may petition the commissioner for an extension of up to an additional forty-five (45) days within which to submit the additional information. Failure of an applicant to submit any additional relevant information requested by the commissioner within the applicable time period shall result in the denial of the variance application.

(e) After the commissioner has determined that a variance application is complete, the commissioner shall make a determination on the application in accordance with the following procedures:

(1) After receipt of a completed variance application, the information submitted under subsection (b)(2) will be reviewed and evaluated.

(2) The highest ranking methodology will be evaluated in accordance with:

(A) 327 IAC 2-1-8.8(b) and 327 IAC 2-1-8.8(c); or

(B) 327 IAC 2-1.5-17(b) and 327 IAC 2-1.5-17(c).

(3) If implementation of the highest ranking methodology causes an undue hardship or burden upon the applicant, the next highest ranking methodology will be evaluated as in subdivision (2).

(4) The procedures outlined in subdivisions (2) and (3) will be repeated until the highest ranking methodology that does not meet the criteria for granting a variance is identified.

(5) The variance determination will require the applicant to implement the highest ranking methodology that does not meet the criteria for granting of a variance.

(6) A variance shall not be granted that would approve the applicant's implementation of a methodology with less overall control effectiveness than the methodology currently implemented by the applicant.

(f) After the commissioner's review and consideration of a completed variance application, the commissioner shall issue a tentative determination on the variance application. The commissioner shall provide a comment period of thirty (30) days on a tentative determination to grant or deny a variance and shall provide public notice of the tentative determination and the comment period as specified under section 12 of this rule. The commissioner shall also include in this public notice, any effects of the variance on the designated use of the receiving waterbody if the tentative determination is to grant the variance.

(g) If a significant degree of interest is expressed during the comment period on the tentative determination to grant or deny the variance, and a public hearing is requested, the commissioner may hold such a hearing after giving notice thereof in accordance with section 12 of this rule. After the comment period or public hearing, the commissioner may request additional information from the applicant.

(h) The commissioner shall make a written determination on the requested variance in accordance with the conditions in 327 IAC 2-1-8.8(b) and subsection (c) or 327 IAC 2-1.5-17(b) and 327 IAC 2-1.5-17(c) within ninety (90) days of the expiration of the later of the following:

(1) The expiration of the public comment period required under subsection (f).

(2) The date of a public hearing allowed under subsection (g).

(3) The date that additional information, requested under subsection (g), is received by the commissioner. This determination is appealable under IC 4-21.5-3.

(i) If the determination is to grant a variance, either as requested, or as modified by the commissioner, the commissioner shall issue a new or reissue or modify an existing NPDES permit to incorporate the provisions of the variance. This variance shall contain the following:

(1) The WQBELs from which the variance has been granted.

(2) The effluent limitations which are determined to be attainable during the term of the variance. These limitations shall represent the maximum degree of progress feasible during the term of the variance toward attainment of the WQBELs without causing the demonstrated adverse impact. When the duration of the variance is shorter than the duration of the permit, compliance with effluent limitations sufficient to meet the water quality criterion upon the expiration of the variance shall be required.

(3) A compliance schedule which specifies the time period in which the permittee will be required to attain the limitations specified under subdivision (2). During this period in which the compliance schedule is in effect, the permittee will be required to meet interim limitations that are no less stringent than those achieved under the previous permit. If the variance is approved for a BCC, a pollutant minimization program shall be conducted consistent with 327 IAC 5-2-11.6(h)(7).

(4) Appropriate conditions requiring reasonable progress to be made toward attaining the water quality criterion for the waterbody as a whole.

(5) Any additional monitoring that is determined to be necessary to evaluate the effects on the receiving waterbody of the variance from water quality standards. This monitoring may include, but is not limited to, the following:

(A) Whole effluent toxicity tests.

(B) Biological assessments of the receiving waterbody.

(C) Fish tissue analysis.

(D) Monitoring of the water column.

(E) Sediment toxicity testing.

(F) Chemical analysis of sediments.

(6) A requirement for the permittee to investigate treatment technologies, process changes, and other techniques which may result in further progress toward attainment of the WQBELs.

(7) A provision allowing the commissioner to reopen and modify the permit based on any revision to the variance made by the board during the next revision of the water quality standards or by EPA upon review of the variance.

(8) For variances governed under subsection (b)(2)(B), a permit condition that allows the commissioner to suspend work of the project, upon written notice to the discharger, if the commissioner determines that the discharge is not in compliance with the permit or that the discharge is causing adverse environmental impacts that were not considered in the development of the permit. This decision is appealable under IC 4-21.5-3. The issuance of a suspension order under this subsection shall not limit other enforcement actions or penalties. The department and permittee shall analyze operational deficiencies, and the department shall prescribe changes necessary to bring the discharge into conformance with the permit or revise the permit to address the unanticipated adverse environmental impacts.

(9) Other conditions that the commissioner determines to be necessary to implement the terms of the variance.

(j) The commissioner may issue a permit containing new limitations for substances not included by the applicant in the variance request. Permit limitations for a substance contained in the applicant's permit that are in effect at the time of the variance application shall remain in effect during the consideration of a variance application for that particular substance.

(k) The permittee may request a renewal of a variance in accordance with the provisions contained in 327 IAC 2-1-8.8 or 327 IAC 2-1.5-17 and this section. The renewal application shall also contain information concerning its compliance with the conditions incorporated into its permit as part of the original variance under subsection (i). Renewal of a variance may be denied if the permittee did not comply with the conditions of the original variance.

(l) All variances and supporting information shall be submitted by the commissioner to the EPA and shall include the following:

- (1) Relevant permittee applications submitted under subsection (b).
- (2) Public comments and records of any public hearings under subsections (f) and (g).
- (3) The final decision under subsection (h).
- (4) NPDES permits issued under subsection (i).

Items required in subdivisions (1) through (3) shall be submitted by the commissioner within thirty (30) days of the date of the final variance decision. The item required in subdivision (4) shall be submitted in accordance with the Memorandum of Agreement with the Regional

Administrator.

(m) All variances shall be appended to the water quality standards rules, 327 IAC 2-1 or 327 IAC 2-1.5, during the triennial review process. (*Water Pollution Control Board; 327 IAC 5-3-4.1; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1044; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1759; filed Feb 15, 1995, 1:30 p.m.: 18 IR 1821; errata filed Apr 21, 1995, 4:00 p.m.: 18 IR 2261; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1467; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3380; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-3-5 Permits required on a case-by-case basis**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 5. (a) Various sections of 327 IAC 5-4 allow the commissioner to determine, on a case-by-case basis, that certain facilities, e.g., concentrated animal feeding operations and particular facilities covered by general permits may be required to obtain individual NPDES permits because of their significant contribution to water pollution or other reasons.

(b) Whenever the commissioner decides that an individual permit should be required under this section, he shall inform the discharger in writing of that decision and the reasons underlying it and shall include an application form with such notice. The discharger must apply for a permit in accordance with 327 IAC 5-3-2 and 327 IAC 5-2-3 within ninety (90) days of a receipt of such notice. (*Water Pollution Control Board; 327 IAC 5-3-5; filed Sep 24, 1987, 3:00 pm: 11 IR 637; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-3-6 Tentative permit decisions and draft permits**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 6. (a) If a permit has been properly requested under section 2 of this rule, the commissioner, after analyzing the data and other information furnished in the permit application and any other relevant information, shall tentatively decide whether to issue or deny the permit.

(b) If the commissioner tentatively decides to issue a permit, a draft permit shall be prepared containing:

- (1) all conditions, limitations, or requirements specified in 327 IAC 5-2-6, 327 IAC 5-2-8, and 327 IAC 5-2-9;
- (2) all effluent limitations, standards, prohibitions, and conditions required by 327 IAC 5-2-10, including all

applicable variances or other statutory modifications which have been requested and appear justified under these rules;

(3) all compliance schedules required by 327 IAC 5-2-12 and 327 IAC 5-2-12.1; and

(4) all monitoring, recording, and reporting requirements specified by 327 IAC 5-2-13, 327 IAC 5-2-14, and 327 IAC 5-2-15.

(c) A decision by the commissioner to deny a permit application shall be made through the same procedures under this rule as any other permit decision. A notice of intent to deny a permit shall be made available for public comment under section 9 of this rule.

(d) If the commissioner determines, either as a result of a request under section 3 of this rule or on the commissioner's own initiative, that the modification or the revocation and reissuance of a permit is warranted under 327 IAC 5-2-16, the commissioner shall formulate a draft permit incorporating the proposed changes in accordance with the following conditions:

(1) In the case of a permit modification:

(A) the draft permit need not include the entire permit but may be restricted to the permit provisions that are proposed to be modified; and

(B) only those terms in the existing permit that are affected by the proposed modification will be reopened, however, such terms of the existing permit remain in force until a modification is issued and becomes finally effective under this article. All other aspects of the permit will remain in force until the expiration of the permit.

(2) If the permit is proposed to be revoked and reissued, the entire permit is reopened just as if the permit had expired and was being reissued. During any proceeding for revocation and reissuance of a permit, the permittee shall comply with all conditions of the existing permit until the new permit is reissued.

(3) If needed for the preparation of a draft permit under this subsection, the commissioner may request additional information, including, in appropriate cases, a complete new permit application.

(e) If the commissioner decides, either as a result of a request or on the commissioner's own initiative, that a permit shall be terminated pursuant to 327 IAC 5-2-16, the commissioner shall prepare a notice of intent to terminate which shall be made available for public comment. The decision shall be finalized through the procedures applicable under this rule to any other permit decision. Pending issuance of a final decision to terminate a permit, the terms and conditions of the permit shall remain in full force and effect.

(f) General permits to be issued under 327 IAC 15 shall be proposed in draft form, shall contain the designa-

tion of the general permit area and, except for general permits for separate storm sewers, shall be sent to the EPA for concurrence or objection during the public comment period. No final permit shall be issued if the regional administrator or the EPA deputy assistant administrator for water enforcement objects to the general permit within ninety (90) days from the date of publication of the public notice for the draft general permit. (*Water Pollution Control Board; 327 IAC 5-3-6; filed Sep 24, 1987, 3:00 p.m.: 11 IR 637; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1471; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-3-7 Statement of basis**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 7. A statement of basis, or briefing memo, shall be prepared for every draft permit for which a fact sheet is not required. The briefing memo shall briefly describe the derivation of the terms and conditions of the permit and the reasons for them. For instance, if effluent limitations in a permit are based upon the application of water quality standards, the briefing memo shall identify the pertinent standards and the manner in which the effluent limitations in the permit were derived from the standards. (*Water Pollution Control Board; 327 IAC 5-3-7; filed Sep 24, 1987, 3:00 p.m.: 11 IR 637; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1760; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-3-8 Fact sheet**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 8. (a) A fact sheet shall be prepared for every draft permit for a major discharger, any draft permit which incorporates a statutory variance or modification or requires explanation under subsection (b)(5), general permits, and every draft permit which the commissioner finds is the subject of widespread public interest or raises major issues. The fact sheet shall briefly set forth the major facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. The commissioner shall send this fact sheet to the following:

(1) The applicant.

(2) EPA Region 5.

(3) The district engineer of the Corps of Engineers.

(4) The regional director of the U.S. Fish and Wildlife Service.

(5) Other interested state and federal agencies.

(6) Any other person on request.

(7) All persons on a mailing list for receipt of fact sheets (see section 12(g) of this rule).

Any of these persons may waive their right to receive a fact sheet for any classes and categories of permits.

(b) The fact sheet shall include the following:

(1) A brief description of the type of facility or activity that is the subject of the draft permit and, where appropriate, a sketch or detailed description of the discharge described in the application.

(2) A description of the type and quantity of pollutants which are, or are proposed to be, discharged.

(3) A brief explanation of the express statutory or regulatory provisions on which permit requirements are based.

(4) Any calculations or other necessary explanation of the derivation of specific effluent limitations and conditions, including a citation to the applicable guideline or development documents or standard provisions as required under 327 IAC 5-2-10 and reasons why they are applicable or an explanation of how alternate effluent limitations were developed.

(5) When the draft permit contains any of the following conditions, an explanation of the reasons why such conditions are applicable:

(A) Technology-based limitations to control toxic pollutants under 327 IAC 5-2-10.

(B) Limitations on internal waste streams in accordance with 327 IAC 5-2-11(h).

(C) Limitations on indicator pollutants under 327 IAC 5-2-10(6) and 327 IAC 5-5-2(f).

(D) Limitations allowing an increase in the discharge of any pollutant, including an explanation that satisfies the requirements of 327 IAC 5-2-10(11) and the antidegradation requirements of 327 IAC 2-1, 327 IAC 2-1.5, and 327 IAC 5-2-11.3.

(E) Limitations implementing a variance from water quality standards under 327 IAC 2-1-8.8 or 327 IAC 2-1.5-17 and section 4.1 of this rule.

(6) Reasons why requested variances or modifications from otherwise required effluent limitations do or do not appear justified.

(7) Name and telephone number of a departmental contact person who can provide additional information.

(8) Any information, not otherwise specified herein, required under section 12 or 12.1 [sic.] of this rule.

(*Water Pollution Control Board; 327 IAC 5-3-8; filed Sep 24, 1987, 3:00 p.m.: 11 IR 638; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1761; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1472; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-3-9 Public comments and public hearings**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 4-21.5; IC 4-22-1; IC 13-1-3; IC 13-7

Sec. 9. (a) A comment period of at least thirty (30) days following the date of public notice of the formulation of a draft permit shall be provided. During this period any interested persons may submit written comments on the draft permit and may request a public hearing in accordance with subsection (b). All comments, including those submitted in a public hearing, shall be considered by the commissioner in preparing the final permit and shall be responded to as provided in 327 IAC 5-3-15.

(b)(1) A public hearing on a draft permit may be held by the commissioner in appropriate cases, either on the commissioner's own initiative or in response to a request or requests for public hearing submitted during the public comment period. Such a hearing shall be held where the commissioner finds there is a significant public interest in the draft permit. Instances of doubt will be resolved in favor of holding a hearing. Public notice of a public hearing shall be given as specified in 327 IAC 5-3-12.

(2) A request for a public hearing shall be in writing and shall state the nature of the issues to be raised and the reasons why a hearing is warranted.

(3) Any hearing conducted pursuant to this section shall be held in the geographical area of the proposed discharge, or other appropriate area where significant public interest exists in the discretion of the commissioner, and may, when appropriate, consider two or more related draft permits.

(4) Any person appearing at such a hearing may submit oral or written statements and data concerning the draft permit. Reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required. A hearing conducted under this section shall not constitute an "administrative adjudication" for purposes of IC 4-22-1 or IC 4-21.5.

(c) All persons, including the applicant, who believe any of the terms and conditions of a draft permit or a tentative decision to deny or terminate a permit is not appropriate for any reason, must raise all reasonably ascertainable issues and submit all arguments and a summary of the factual grounds supporting their position by the close of the public comment period (including any public hearing period).

(d) Since a general permit is in the nature of rule, public notice and public hearing of the proposed issuance of a general permit must be given in accordance with statutorily prescribed procedures for administrative agency rulemaking as well as the provisions of this section and 327 IAC 5-3-12. (*Water Pollution Control*

*Board; 327 IAC 5-3-9; filed Sep 24, 1987, 3:00 pm: 11 IR 638; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 5-3-10 Terms requested by the corps of engineers and other governmental agencies**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 10. (a) If the district engineer of the corps of engineers advises the commissioner in writing during the public comment period that anchorage and navigation of any of the waters of the United States would be substantially impaired by the granting of a permit, the permit shall be denied and the applicant so notified. If the district engineer advises the commissioner that imposing specified conditions upon the permit is necessary to avoid any substantial impairment of anchorage or navigation, then the commissioner shall include the specified conditions in the permit. Review or appeal of a denial of a permit or of conditions specified by the district engineer shall be made through the applicable procedures of the corps of engineers, and may not be made through the procedures provided in this rule (327 IAC 5-3).

(b) If during the comment period the U.S. fish and wildlife service or any state or other federal agency with jurisdiction over fish, wildlife, or public health advises the commissioner in writing that the imposition of specified conditions upon the permit is necessary to avoid substantial impairment of fish, shellfish, or wildlife resources, the commissioner may include the specified conditions in the permit to the extent the commissioner determines they are necessary to carry out the provisions of the CWA and applicable state law.

(c) In appropriate cases the commissioner may consult with one (1) or more of the agencies referred to in this section before issuing a draft permit and may reflect their views in the statement of basis, the fact sheet, or the draft permit. (*Water Pollution Control Board; 327 IAC 5-3-10; filed Sep 24, 1987, 3:00 pm: 11 IR 639; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-3-11 Reopening of the comment period**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 11. If any information or arguments submitted during the public comment period appears to raise substantial new questions concerning a permit, the commissioner may conclude that one or more of the following actions is necessary for an informed decision:

(1) formulation of a new draft permit, appropriately

modified;

(2) preparation of a fact sheet or revised fact sheet and reopening the comment period under 327 IAC 5-3-9; or  
 (3) Reopening or extending the comment period to give interested persons an opportunity to comment on the information or arguments submitted. In each case the notice required by 327 IAC 5-3-12 shall be given. (*Water Pollution Control Board; 327 IAC 5-3-11; filed Sep 24, 1987, 3:00 pm: 11 IR 639; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-3-12 Public notice of comment period; public hearings concerning permit determinations**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 12. (a) Notice of every proposed determination on a permit issuance or denial and of a public hearing concerning such a proposed determination shall be circulated in a manner designed to inform interested persons. Notice of a proposed permit determination shall allow at least thirty (30) days for public comment, as specified in section 9 of this rule, and notice of a public hearing shall be given at least thirty (30) days before the hearing.

(b) Public notices required by subsection (a) shall be given by the commissioner as follows:

(1) By mailing a copy by certified mail, return receipt requested, to the applicant, to EPA, and to the U.S. Army Corps of Engineers, and by regular first class mail to federal and state agencies with jurisdiction over fish, shellfish, and wildlife resources (including the U.S. Fish and Wildlife Service and the Indiana department of natural resources), to other appropriate governmental authorities including any affected state, to any person on request, and to all persons on a mailing list for receipt of such notices.

(2) By publication of a notice in a daily or weekly newspaper in general circulation throughout the area affected by the discharge or, at the commissioner's discretion, by any other method reasonably calculated to give actual notice of the proposed permit action to persons potentially affected by it, including the use of press releases or by posting a copy of the information required under subsection (c) at the principal office of the municipality or political subdivision affected by the facility or discharge and at the United States post office serving those premises.

Any person otherwise entitled to receive notice under subdivision (1) may waive the right to receive notice for any classes and categories of permits.

(c) All public notices issued under this section shall

contain the following information:

- (1) Name and address of this department.
- (2) Except in the case of general permits, name and address of the applicant and the discharger (if different from the applicant) and a general description of the location of each existing or proposed discharge point, including the receiving water.
- (3) A brief description of the applicant's activities or operations that result in the discharge described in the application, and a statement whether the application pertains to a new or existing discharge.
- (4) A brief description of the tentative permit determination, e.g., to issue, deny, modify, revoke and reissue, terminate the permit, or grant or deny a request for variance from applicable water quality standards, in accordance with section 4.1 of this rule.
- (5) If the applicant has properly applied under section 316(a) of the CWA for a thermal variance, a statement to that effect. The notice shall state that all data submitted by the applicant are available as part of the administrative record for public inspection during office hours. The notice shall also include the following:
  - (A) A brief description, including a quantitative statement, of the thermal effluent limitations proposed under section 301 or 306 of the CWA.
  - (B) A statement that alternative less stringent effluent limitations may be imposed on the thermal component of the discharge under section 316(a) of the CWA and a brief description, including a quantitative statement, of the alternative effluent limitations, if any, included in the application.
  - (C) If the applicant has filed an early screening application for a CWA section 316(a) variance under 327 IAC 5-7-3, a statement that the applicant has submitted such a plan.
- (6) A brief description of the comment procedures provided under section 9 of this rule and a statement of the right and procedures to request a public hearing.
- (7) Name of a contact person, and an address and telephone number where interested persons may obtain further information, including copies of the draft permit and the statement of basis or fact sheet.
- (d) Notice of the formulation of a draft general permit and the issuance of a final general permit under section 15 of this rule shall:
  - (1) meet the requirements of subsection (c) and shall also include:
    - (A) a brief description of the types of activities or operations to be covered by the general permit;
    - (B) a map or description of the general permit boundary; and
    - (C) the basis for choosing the general permit bound-

ary; and

- (2) be published in the Indiana Register and in one (1) or more daily or weekly newspapers in general circulation within the general permit boundaries.

In addition to the publication required by subdivision (2), the commissioner shall use all other reasonable means to notify affected dischargers of the draft and final general permit, including the mailing of a copy of such notice to those permittees which are affected.

(e) In addition to the information required under subsection (c), public notice of a public hearing held under section 9 of this rule shall contain the following information:

- (1) Reference to the date and identification number of the public notice of the draft permit.
- (2) Date, time, and place of the hearing.
- (3) A brief description of the nature and purpose of the hearing including the applicable rules and procedures.

(f) The commissioner, at the commissioner's discretion, may include in any notice of a tentative permit determination under subsection (c) a notice of hearing in accordance with subsection (e), whether or not any request for such hearing shall have been submitted to him.

(g) The mailing lists referred to in subsection (b)(1) and in section 8(a) of this rule consists of those persons who request to be on the list to receive copies of all public notices or fact sheets, respectively, or both. Such a request shall be made in writing to the department and shall be renewed annually in the month of January. Failure to renew the request will be cause for the commissioner to remove a name from the appropriate mailing list. Availability of the mailing lists will be publicized periodically through press releases and notices in the Indiana Register or other appropriate publications. The commissioner may establish regional mailing lists in addition to or in place of a statewide list. (*Water Pollution Control Board; 327 IAC 5-3-12; filed Sep 24, 1987, 3:00 p.m.: 11 IR 639; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1761; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-3-13 Special procedures for decisions on thermal issues**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 13. (a) Permit applicants who wish a final decision, prior to issuance of a final permit, on whether alternative thermal effluent limitations would be justified under section 316(a) of the CWA and whether cooling water intake structures employ the best available technology under section 316(b) of the CWA should request such an early decision and furnish supporting reasons at

the time their applications are filed under 327 IAC 5-3-4(b)(5). The commissioner may, in the commissioner's discretion, grant or deny such a request. If it is granted, both the early decision on CWA section 316(a) or (b) issues and the determination on the balance of the permit shall be considered permit issuance under these rules (327 IAC 5-3), and shall be subject to the same requirements of public notice and comment and the same opportunity for an adjudicatory hearing.

(b) If the commissioner, on review of the administrative record, determines that the information necessary to decide whether or not an alternative effluent limitation under section 316(a) of the CWA should be granted to a source is not likely to be available by the time a decision on permit issuance must be made, the commissioner may issue a permit for a term of up to five (5) years without making the CWA section 316(a) decision. This permit shall require that the point source achieve the effluent limitations initially proposed for the control of the thermal component of the discharge no later than the date otherwise required by applicable legal requirements. However, the permit shall also afford the permittee an opportunity to file a demonstration under section 316(a) of the CWA after conducting such studies as are required by 327 IAC 5-7.

(c) Whenever the commissioner defers the CWA section 316(a) determination pursuant to subsection (b), any determination under section 316(b) of the CWA may also be deferred. (*Water Pollution Control Board; 327 IAC 5-3-13; filed Sep 24, 1987, 3:00 pm: 11 IR 640; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-3-14 Issuance and effective date of a permit**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 4-21.5-3-7; IC 13-1-3; IC 13-7-10-2; IC 13-7-10-2.5

Sec. 14. (a) After the close of the public comment period (including any public hearing) required by section 9 of this rule on a draft permit, the commissioner (except as provided in subsection (c)) shall issue a final permit decision and shall serve notice of that action on the applicant and on each person who has submitted written comments or requested notice of the final permit decision. This notice shall include reference to the procedures available to contest the permit terms by requesting an adjudicatory hearing. For the purposes of this section, "final permit decision" means a final decision to issue, deny, modify, revoke and reissue, or terminate a permit.

(b) Issuance of a general permit shall be accomplished by the publication of the full text of the permit in the Indiana Register and the notification specified under section 12(d) of this rule, in addition to the notification

required by subsection (a).

(c) The commissioner may delegate authority to a staff member to issue or deny NPDES permits to applicants within a specified class or category of point sources. Within the scope of any such delegation, a reference in this rule to the commissioner shall also mean the commissioner's delegatee.

(d) A final permit decision shall become effective with respect to the applicant unless, within fifteen (15) days after receipt of notice of said decision, the applicant files a request for adjudicatory hearing concerning the permit decision with the commissioner in accordance with IC 13-7-10-2.5(c) and IC 4-21.5-3-7.

(e) If an adjudicatory hearing request concerning a final permit decision is granted by the board pursuant to IC 13-7-10-2.5(e), any permit provisions that are stayed by order of the board shall not go into effect until confirmed at the final resolution of the hearing or until the board otherwise dissolves the stay. Any permit provisions not stayed by the board in such a proceeding remain effective and in full force.

(f) Where permit provisions are stayed during an adjudicatory proceeding on a renewal permit for an existing source, all provisions of the previous permit which correspond to the stayed provisions of the new permit and which are consistent with those provisions of the new permit that are not stayed shall continue in full force and effect until a final resolution of the adjudicatory proceeding. However, this subsection shall not apply if a timely and sufficient application for the renewal permit was not submitted in accordance with IC 13-7-10-2(e). (*Water Pollution Control Board; 327 IAC 5-3-14; filed Sep 24, 1987, 3:00 p.m.: 11 IR 641; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1762; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-3-15 Response to comments**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 15. Contemporaneously with the issuance of a final permit under 327 IAC 5-3-14, the commissioner shall transmit a response to each person having commented on the draft permit. This response to comments shall contain:

- (1) a brief description of and response to all significant comments on the draft permit raised during the public comment period, or during any hearing;
- (2) a specific indication of which provisions of the draft permit have been changed in the final permit, and the reasons for the change; and
- (3) a brief explanation of the right to request an adjudicatory hearing on the final permit.

(*Water Pollution Control Board; 327 IAC 5-3-15; filed Sep 24, 1987, 3:00 pm: 11 IR 641; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 5-3-16 Judicial review

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 4-21.5-5; IC 13-1-3; IC 13-7

Sec. 16. Any person aggrieved by final agency action on an adjudicatory hearing or affirming the denial of a request for adjudicatory hearing may seek judicial review of said action pursuant to the provisions of IC 4-21.5-5. (*Water Pollution Control Board; 327 IAC 5-3-16; filed Sep 24, 1987, 3:00 p.m.: 11 IR 642; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1763; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### Rule 4. Special NPDES Programs

327 IAC 5-4-1	Purpose
327 IAC 5-4-2	Underground injection of pollutants
327 IAC 5-4-3	Concentrated animal feeding operations
327 IAC 5-4-4	Concentrated aquatic animal production facilities
327 IAC 5-4-5	Aquaculture projects
327 IAC 5-4-6	Storm water discharges
327 IAC 5-4-7	Silvicultural activities
327 IAC 5-4-8	General permit program ( <i>Repealed</i> )

### 327 IAC 5-4-1 Purpose

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 1. This rule (327 IAC 5-4) describes NPDES program requirements for certain categories of point source dischargers. (*Water Pollution Control Board; 327 IAC 5-4-1; filed Sep 24, 1987, 3:00 pm: 11 IR 642*)

### 327 IAC 5-4-2 Underground injection of pollutants

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 2. (a) If an applicant for an NPDES permit proposes to dispose of pollutants by underground injection as part of the overall effort to meet the requirements of the NPDES program, the commissioner shall deny the request, as this function now lies with EPA as part of the requirements of the SWDA, unless it is determined by the commissioner to be necessary to specify additional terms and conditions in the final NPDES permit which shall:

- (1) prohibit the proposed disposal; or
- (2) control the proposed disposal in order to prevent pollution of ground and surface water resources of such character and degree as would endanger or threaten to endanger the public health and welfare.

(b) A person proposing a discharge of pollutants by underground injection from a facility with no other point source discharge of pollutants subject to NPDES requirements shall not be required to obtain an NPDES permit. However, the commissioner may prohibit or control such a proposed discharge through the issuance of construction and operation permits under 327 IAC 3 so as to prevent pollution of ground waters of the state of such character and degree as would endanger or threaten to endanger the public health and welfare. (*Water Pollution Control Board; 327 IAC 5-4-2; filed Sep 24, 1987, 3:00 p.m.: 11 IR 642; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1763*)

### 327 IAC 5-4-3 Concentrated animal feeding operations

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 3. (a) Concentrated animal feeding operations are point sources subject to the NPDES permit program.

(b) Definitions.

(1) "Animal feeding operation" means a lot or facility where the following conditions are met:

- (A) animals (other than aquatic animals) have been, are, or will be, stabled or confined and fed or maintained for a total of forty-five (45) days or more in any 12-month period; and
- (B) crops, vegetation, forage growth or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

Two (2) or more animal feeding operations under common ownership are considered, for the purposes of this article (327 IAC 5), to be a single animal feeding operation if they adjoin each other or if they use a common area or system for the disposal of wastes.

(2) "Concentrated animal feeding operation" means an animal feeding operation which meets the criteria set forth in clause (A) or (B) or which is designated by the commissioner under subsection (c):

- (A) More than the numbers of animals specified in any of the following categories are confined:
  - (i) one thousand (1,000) slaughter and feeder cattle;
  - (ii) seven hundred (700) mature dairy cattle (whether milked or dry cows);
  - (iii) two thousand five hundred (2,500) swine each weighing over 25 kilograms (approximately 55 pounds);
  - (iv) five hundred (500) horses;
  - (v) ten thousand (10,000) sheep or lambs;
  - (vi) fifty-five thousand (55,000) turkeys;
  - (vii) one hundred thousand (100,000) laying hens

or broilers (if the facility has continuous overflow watering);

(viii) thirty thousand (30,000) laying hens or broilers (if the facility has a liquid manure system);

(ix) five thousand (5,000) ducks; or

(x) one thousand (1,000) animal units; or

(B)(i) Either pollutants are discharged from the facility into waters of the state through a man-made ditch, flushing system, or other similar man-made device; or pollutants are discharged directly from the facility into waters of the state which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation; provided, however, that no animal feeding operation is a concentrated animal feeding operation as defined above if such animal feeding operation discharges only in the event of a twenty-five (25) year, twenty-four (24) hour storm event; and

(ii) More than the following numbers of animals are confined in any of the following categories:

(AA) three hundred (300) slaughter or feeder cattle;

(BB) two hundred (200) mature dairy cattle (whether milked or dry cows);

(CC) seven hundred fifty (750) swine, each weighing over 25 kilograms;

(DD) one hundred fifty (150) horses;

(EE) three thousand (3,000) sheep or lamb;

(FF) sixteen thousand five hundred (16,500) turkeys;

(GG) thirty thousand (30,000) laying hens or broilers (if the facility has continuous overflow watering);

(HH) nine thousand (9,000) laying hens or broilers (if the facility has a liquid manure handling system);

(II) one thousand five hundred (1,500) ducks; or

(JJ) three hundred (300) animal units.

(3) "Animal unit" means a unit of measurement for any animal feeding operation such that the total animal units is calculated by adding the following numbers: the number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 25 kilograms (approximately 55 pounds) multiplied by 0.4, plus the number of sheep multiplied by 0.1, plus the number of horses multiplied by 2.0.

(4) "Man-made" means constructed by man and used for the purpose of transporting wastes.

(c) Case-by-case designation of concentrated animal feeding operations.

(1) Notwithstanding any other provision of this sec-

tion, any animal feeding operation may be designated as a concentrated animal feeding operation where it is determined to be a significant contributor of pollution to the waters of the state. In making this designation the commissioner shall consider the following factors:

(A) the size of the animal feeding operation and the amount of wastes reaching waters of the state;

(B) the location of the animal feeding operation relative to waters of the state;

(C) the means of conveyance of animal wastes and process wastewaters into waters of the state;

(D) the slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of animal wastes and process wastewaters into waters of the state; and

(E) other factors relevant to the significance of the pollution problem under consideration.

(2) In no case shall a permit application be required from a concentrated animal feeding operation designated under this subsection until there has been an on-site inspection of the operation and a determination that the operation should be regulated under the permit program.

(3) No animal feeding operation with less than the numbers of animals set forth in subsection (b) shall be designated as a concentrated animal feeding operation unless:

(A) pollutants are discharged into waters of the State through a man-made ditch, flushing system, or other similar man-made device; or

(B) pollutants are discharged directly into waters of the state which originate outside of the facility and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

*(Water Pollution Control Board; 327 IAC 5-4-3; filed Sep 24, 1987, 3:00 pm: 11 IR 642)*

#### **327 IAC 5-4-4 Concentrated aquatic animal production facilities**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 4. Concentrated aquatic animal production facilities, as defined at 40 CFR 122.24, are point sources subject to NPDES permit requirements. *(Water Pollution Control Board; 327 IAC 5-4-4; filed Sep 24, 1987, 3:00 pm: 11 IR 643)*

#### **327 IAC 5-4-5 Aquaculture projects**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 5. Discharges into aquaculture [*sic.*] projects, as

defined in 40 CFR 122.25, are subject to the NPDES permit program in accordance with the criteria specified in 40 CFR Part 125, Subpart B. (*Water Pollution Control Board; 327 IAC 5-4-5; filed Sep 24, 1987, 3:00 pm: 11 IR 643*)

### **327 IAC 5-4-6 Storm water discharges**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1

**Affected:** IC 13-18-4

Sec. 6. (a) The following discharges consisting entirely of storm water require an individual NPDES permit:

- (1) A discharge that the commissioner determines:
  - (A) contributes to a violation of a water quality standard;
  - (B) is a significant contributor of pollutants to waters or to a regulated municipal separate storm sewer system (MS4) conveyance; or
  - (C) meets the conditions of one (1) of the six (6) cases listed in 327 IAC 15-2-9(b).
- (2) A discharge with respect to which a permit has been issued prior to February 4, 1987.
- (3) A discharge that is subject to federal storm water effluent limitation guidelines unless the effluent limitations are placed in a general permit under article 15 [327 IAC 15].
- (4) A discharge associated with the state department of transportation.
- (5) A discharge from an MS4 conveyance subject to regulation under 40 CFR 122.26(a)(iii) or (iv).
- (b) The following discharges consisting entirely of storm water require an NPDES permit and are eligible for coverage under a general NPDES permit unless one (1) of the conditions in subsection (a) is met:
  - (1) A discharge exposed to categories of industrial activity specified in 327 IAC 15-6-2.
  - (2) A discharge associated with construction activities, which disturb one (1) or more acres of land. Included in these activities are disturbances of less than one (1) acre of land that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one (1) or more acres of land.
  - (3) A discharge from an MS4 conveyance that meets the designation criteria in 327 IAC 15-13-3(a) or 327 IAC 15-13-3(b).
  - (c) The commissioner shall not, under this section, require a permit for discharges of storm water run-off from mining operations or oil and gas exploration, production, processing, or treatment operations or transmission facilities, composed entirely of flows from conveyances or systems of conveyances, including, but not limited to, pipes, conduits, ditches, and channels, used for collecting and conveying precipitation run-off

and which are not contaminated by contact with or do not come into contact with any overburden, raw material, intermediate products, finished product, byproduct, or waste products located on the site of such operations.

(d) If an individual NPDES permit is required under subsection (a), the department may consider the following in determining the requirements to be contained in the permit:

- (1) The provisions in:
  - (A) 327 IAC 15-5, 327 IAC 15-6, and 327 IAC 15-13, as appropriate to the type of storm water discharge; or
  - (B) 327 IAC 5-2, 327 IAC 5-5, and 327 IAC 5-9 for establishing NPDES permit effluent limitations and conditions.
- (2) The United States Environmental Protection Agency guidance document titled "Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits" (August 1, 1996)\*.
- (3) The nature of the discharges and activities occurring at the site or facility.
- (4) Other information relevant to the potential impact on water quality.
- (e) Storm water run-off discharged into a combined sewer system is not subject to the provisions of this section.
- (f) Whether a discharge from an MS4 conveyance is, subject to regulation under this section, shall have no bearing on whether the owner or operator of the discharge is eligible for funding under Title II, Title III, or Title VI of the CWA.

(g) Terms, as used in this section, have the same meaning as defined under 40 CFR 122.26(b), 327 IAC 15-5-4, 327 IAC 15-6-4, or 327 IAC 15-13-5, unless defined as follows:

- (1) "General NPDES permit" means an authorization to discharge under the NPDES rules, that is applicable to all owners and operators of point sources of a particular category located within a designated general permit boundary, other than owners and operators of such sources to whom individual NPDES permits have been issued.
- (2) "Individual NPDES permit" means an authorization to discharge under the NPDES rules, that is applicable to an individual owner or operator of point sources, and establishes requirements specific for that owner or operator.

\*Copies of the United States Environmental Protection Agency guidance document referenced in this section may be obtained from the Government Printing Office, Washington, D.C. 20402 or the Indiana Department of Environmental Management, Office of Water Quality, Indiana Government Center-North, 100 North Senate

Avenue, Indianapolis, Indiana 46204. (*Water Pollution Control Board; 327 IAC 5-4-6; filed Sep 24, 1987, 3:00 p.m.: 11 IR 644; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1764; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3575*)

### **327 IAC 5-4-7 Silvicultural activities**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 7. Silvicultural point sources, as defined in 40 CFR 122.27, are point sources subject to the NPDES permit program. (*Water Pollution Control Board; 327 IAC 5-4-7; filed Sep 24, 1987, 3:00 pm: 11 IR 644*)

### **327 IAC 5-4-8 General permit program (*Repealed*)**

Sec. 8. (*Repealed by Water Pollution Control Board; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1775*)

## **Rule 5. NPDES Criteria and Standards for Technology-Based Treatment Requirements**

327 IAC 5-5-1	Purpose and scope
327 IAC 5-5-2	Technology-based treatment requirements
327 IAC 5-5-3	Secondary treatment requirements for POTWs

### **327 IAC 5-5-1 Purpose and scope**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 1. This rule (327 IAC 5-5) establishes criteria and standards for the imposition of technology-based treatment requirements in permits under 327 IAC 5-2-10, including the application of EPA-promulgated effluent limitations and standards under sections 301(b) and 306 of the CWA, and case-by-case determinations of effluent limitations under section 402(a)(1) of the CWA. (*Water Pollution Control Board; 327 IAC 5-5-1; filed Sep 24, 1987, 3:00 pm: 11 IR 645; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-5-2 Technology-based treatment requirements**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 2. (a) Technology-based treatment requirements under sections 301(b) and 306 of the CWA represent the minimum level of control that must be imposed in an NPDES permit issued under section 402 of the CWA for an existing source and a new source, respectively. Compliance with these technology-based treatment requirements is required within the times prescribed in section 301(b)(2) of the CWA and 40 CFR 123.3(a)(2).

Notwithstanding these minimum technology-based requirements, more stringent treatment requirements may be imposed under section 301(b)(1)(C), 302, or 307(a)(2) of the CWA.

(b) Technology-based treatment requirements may be imposed through one (1) of the following methods:

(1) Application of EPA-promulgated effluent limitations developed under section 304 or 306 of the CWA to discharges by category or subcategory. These effluent limitations are not applicable to the extent that they have been remanded or withdrawn. However, in the case of a court remand, determinations underlying effluent limitations shall be binding in permit issuance proceedings where those determinations are not required to be reexamined by a court remanding the regulations. In addition, dischargers may seek fundamentally different factors variances from these effluent limitations under 327 IAC 5-6. If a fundamentally different factors variance is approved by EPA under 40 CFR 125, Subpart D, the resulting effluent limitations are technology-based treatment requirements for purposes of this article.

(2) On a case-by-case basis under section 402(a)(1) of the CWA, to the extent that EPA-promulgated effluent limitations are unavailable. Standards of performance for new sources cannot be developed on an ad hoc basis under section 402(a)(1) of the CWA. By statutory definition, a source is a new source only if standards of performance applicable to such source have been promulgated by EPA. The commissioner shall apply the appropriate factors listed in section 304 of the CWA and shall consider the following:

(A) The appropriate technology for the category or class of point sources of which the applicant is a member, based upon all available information (including EPA draft or proposed development documents or guidance).

(B) Any unique factors relating to the applicant.

(3) Through a combination of the methods in subdivisions (1) and (2). Where promulgated effluent limitations guidelines only apply to certain aspects of the discharger's operation, or to certain pollutants, other aspects or activities are subject to regulation on a case-by-case basis in order to carry out the provisions of the CWA.

(c) Technology-based treatment requirements are applied prior to or at the point of discharge.

(d) Technology-based treatment requirements cannot be satisfied through the use of nontreatment techniques such as flow augmentation and instream mechanical aerators. However, these techniques may be considered as a method of achieving water quality standards on a case-by-case basis when:

(1) the technology-based treatment requirements applicable to the discharge are not sufficient to achieve the promulgated water quality standards;

(2) the discharger agrees to waive any opportunity to request a variance under section 301(c) or 301(g) of the CWA; and

(3) the discharger demonstrates that such a technique is the preferred environmental and economic method to achieve the standards after consideration of alternatives such as advanced waste treatment, recycle and reuse, land disposal, changes in operating methods, and other available methods.

(e) Technology-based effluent limitations shall be established under this rule for solids, sludges, filter backwash, and other pollutants removed in the course of treatment or control of wastewaters in the same manner as for other pollutants if such pollutants are proposed to be discharged.

(f) Other provisions of this rule notwithstanding, the commissioner may do the following:

(1) Set a permit limit for conventional pollutants at a level more stringent than the best conventional pollution control technology (BCT), or a limit for a nonconventional pollutant which shall not be subject to modification under section 301(c) or 301(g) of the CWA, where:

(A) effluent limitations guidelines specify the pollutant as an indicator for a toxic pollutant; or

(B)(i) the limitation reflects BAT level control of discharges of one (1) or more toxic pollutants which are present in the waste stream, and a specific BAT limitation upon the toxic pollutants is not feasible for economic or technical reasons;

(ii) the permit identifies which toxic pollutants are intended to be controlled by use of the limitation; and

(iii) the fact sheet required by 327 IAC 5-3-8 sets forth the basis for the limitation, including a finding that compliance with the limitation will result in BAT level control of the toxic pollutant discharges identified in item (ii), and a finding that it would be economically or technically infeasible to directly limit the toxic pollutants.

(2) Set a permit limit for a conventional pollutant at a level more stringent than [*sic., than*] BCT when any of the following occur:

(A) Effluent limitations guidelines specify the pollutant as an indicator for a hazardous substance.

(B) The following are established:

(i) The limitation reflects BAT level control of discharges (or an appropriate level determined under section 301(c) or 301(g) of the CWA) of one (1) or more hazardous substances which are pres-

ent in the waste stream, and a specific BAT (or other appropriate) limitation upon the hazardous substances is not feasible for economic or technical reasons.

(ii) The permit identifies which hazardous substances are intended to be controlled by use of the limitation.

(iii) The fact sheet sets forth the basis for the limitation, including a finding that compliance with the limitations will result in BAT level (or appropriate level) control of the hazardous substances discharges identified in item (ii), and a finding that it would be economically or technically infeasible to directly limit the hazardous substances.

(C) Hazardous substances which are also toxic pollutants are subject to subdivision (1).

(3) Not set a more stringent limit under subdivision (1) or (2) if the method of treatment required to comply with the limit differs from that which would be required if the toxic pollutants or hazardous substances controlled by the limit were limited directly.

(g) Toxic pollutants identified under subsection (f)(1) remain subject to the requirements of 327 IAC 5-2-9, concerning notification of increased discharges of toxic pollutants above levels reported in the application form.

(h) In setting case-by-case limitations pursuant to subsection (b), the permit writer must consider the following factors:

(1) The following are requirements for BPT:

(A) The total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application.

(B) The age of equipment and facilities involved.

(C) The process employed.

(D) The engineering aspects of the application of various types of control techniques.

(E) Process changes.

(F) Nonwater quality environmental impact, including energy requirements.

(2) The following are requirements for BCT:

(A) The reasonableness of the relationship between the costs of attaining a reduction in effluent and the effluent reduction benefits derived.

(B) The comparison of the cost and level of reduction of such pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources.

(C) The age of equipment and facilities involved.

(D) The process employed.

(E) The engineering aspects of the application of various types of control techniques.

(F) Process changes.

(G) Nonwater quality environmental impact, including energy requirements.

- (3) The following are requirements for BAT:
  - (A) The age of equipment and facilities involved.
  - (B) The process employed.
  - (C) The engineering aspects of the application of various types of control techniques.
  - (D) Process changes.
  - (E) The cost of achieving such effluent reduction.
  - (F) Nonwater quality environmental impact, including energy requirements.

*(Water Pollution Control Board; 327 IAC 5-5-2; filed Sep 24, 1987, 3:00 p.m.: 11 IR 645; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1765; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 5-5-3 Secondary treatment requirements for POTWs**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 3. (a) Secondary treatment and corresponding effluent limitations applicable to discharges from POTWs under section 301(b)(1)(B) of the CWA are defined by EPA at 40 CFR 133.

(b) Notwithstanding subsection (a), attainment of the following alternative effluent limitations shall be deemed as compliance with secondary treatment requirements under section 301(b)(1)(B) of the CWA for POTWs where a waste stabilization pond constitutes the sole means of providing secondary treatment and the design population equivalent is less than ten thousand (10,000):

Parameter	Monthly Average	Weekly Average
Carbonaceous BOD <sub>5</sub>	25 mg/l (or 85% removal, whichever is more stringent)	40 mg/l
Total suspended solids	70 mg/l	105 mg/l

(c) For purposes of this section, "POTWs" also includes semipublic entities, which are defined as public and private entities that provide sewage treatment to a group of people having a quasi-public character, e.g., municipal school corporations, private utilities serving mobile home parks and residential developments, etc. *(Water Pollution Control Board; 327 IAC 5-5-3; filed Sep 24, 1987, 3:00 p.m.: 11 IR 647; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1767; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**Rule 6. Criteria and Standards for Determining Fundamentally Different Factors**

- 327 IAC 5-6-1 Purpose
- 327 IAC 5-6-2 Criteria
- 327 IAC 5-6-3 Burden of persuasion

**327 IAC 5-6-1 Purpose**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 1. (a) This rule establishes the criteria and standards to be used in determining whether ad hoc effluent limitations or standards alternative to those required by effluent limitations guidelines or standards promulgated under sections 301, 304, and 307(b) of the CWA (hereinafter referred to as national limits) should be imposed on a discharger because factors relating to the discharger's facilities, equipment, processes, or other matters affecting the discharge are fundamentally different from the factors considered by EPA in development of the national limits. This rule applies to all national limits promulgated under sections 301, 304, and 307(b) of the CWA, except for those contained in 40 CFR 423 concerning steam electric generating point source category.

(b) Such a fundamentally different factor variance may be requested by a permit applicant in accordance with 327 IAC 5-3-4(b) or may be proposed by the commissioner on his own initiative in the draft permit. *(Water Pollution Control Board; 327 IAC 5-6-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 647; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1768; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 5-6-2 Criteria**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 2. (a) A variance from national limits shall be proposed by the commissioner to EPA for approval, whether at the commissioner's own initiative or upon the request of the permit applicant, only if:

- (1) there is an applicable national limit which specifically controls the pollutant for which alternative effluent limitations or standards have been proposed;
- (2) the factors relating to the discharge upon which the variance request is based are fundamentally different from those considered by EPA in establishing the national limits and were in existence prior to EPA's promulgation of such national limits; and
- (3) the request for alternative effluent limitations or standards is made in accordance with the procedural requirements of 327 IAC 5-3.

(b) A request for the establishment of effluent limitations less stringent than applicable national limits shall be recommended by the commissioner only if:

- (1) the alternative effluent limitation or standard to be

established is no less stringent than justified by the fundamental difference; and

(2) the alternative effluent limitation or standard will ensure compliance with sections 208(e) and 301(b)(1)(C) of the CWA; and

(3) compliance with the national limits (either by using the technologies upon which the national limits are based or by other control alternatives) would result in:

(A) a removal cost wholly out of proportion to the removal cost considered during development of the national limits; or

(B) an environmental impact not affecting water quality (including energy requirements) which is fundamentally more adverse than the impact considered during development of the national limits.

(c) A request for alternative limits more stringent than required by national limits shall be recommended by the commissioner only if:

(1) the alternative effluent limitation or standard to be established is no more stringent than justified by the fundamental difference; and

(2) compliance with the alternative effluent limitation or standard can be achieved using the technologies upon which the national limits are based or other reasonably available control alternatives and would not result in:

(A) a removal cost wholly out of proportion to the removal cost considered during development of the national limits; or

(B) an environmental impact not affecting water quality (including energy requirements) which is fundamentally more adverse than the impact considered during development of the national limits.

(d) Factors which may be considered fundamentally different are:

(1) the nature or quality of pollutants contained in the raw waste load of the applicant's process wastewater;

(2) the volume of the discharger's process wastewater and the volume of effluent discharged;

(3) nonwater quality environmental impact of the control and treatment of the discharger's raw waste load (however, this factor will be considered pertinent, generally, only if such nonwater quality impact would result in the violation of another applicable federal or state law);

(4) energy requirements of the application of control and treatment technology;

(5) age, size, land availability, and configuration as they relate to the discharger's equipment or facilities; processes employed; process changes; and engineering aspects of the application of control technology.

(e) Alternative effluent limitations shall not be established under this section on any of the following grounds:

(1) the infeasibility of installing the required waste treatment equipment within the time the CWA allows;

(2) the assertion that the national limits cannot be achieved with the appropriate waste treatment facilities installed, if such assertion is not based on factor(s) listed in subsection (d);

(3) the discharger's ability to pay for the required waste treatment; or

(4) the impact of a discharge on local receiving water quality.

(f) Nothing in this section shall be construed to abridge the right of the commissioner under section 510 of the CWA to impose more stringent limitations than the minimum technology-based effluent limitations applicable under the CWA. (*Water Pollution Control Board; 327 IAC 5-6-2; filed Sep 24, 1987, 3:00 pm: 11 IR 647; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 5-6-3 Burden of persuasion**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 3. The burden is on the person requesting the variance to explain that:

(1) factor(s) listed in 327 IAC 5-6-2(d) regarding the discharger's facility are fundamentally different from the factors EPA considered in establishing the national limits;

(2) the alternative limitations requested are justified by the fundamental difference alleged in subdivision (1); and

(3) the appropriate requirements of 327 IAC 5-6-2 have been met.

(*Water Pollution Control Board; 327 IAC 5-6-3; filed Sep 24, 1987, 3:00 pm: 11 IR 648; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **Rule 7. Alternative Thermal Effluent Limitations; Determination**

327 IAC 5-7-1 Purpose

327 IAC 5-7-2 Definitions

327 IAC 5-7-3 Early screening of applications

327 IAC 5-7-4 Criteria and standards for granting alternate thermal effluent limitations

#### **327 IAC 5-7-1 Purpose**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 1. This rule (327 IAC 5-7) describes the factors, criteria and standards for the establishment of alternative thermal effluent limitations under section 316(a) of the CWA. (*Water Pollution Control Board; 327 IAC 5-7-1; filed Sep 24, 1987, 3:00 pm: 11 IR 648; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-7-2 Definitions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 2. For the purpose of this rule (327 IAC 5-7):

“Alternative effluent limitations” means all effluent limitations or standards of performance for the control of the thermal component of any discharge which are established under section 316(a) of the CWA and this rule (327 IAC 5-7).

“Balanced, indigenous community” is synonymous with the term “balanced, indigenous population” in the CWA and means a biotic community typically characterized by diversity, the capacity to sustain itself through cyclic seasonal changes, presence of necessary food chain species and by a lack of domination by pollution tolerant species. Such a community may include historically nonnative species introduced in connection with a program of wildlife management and species whose presence or abundance results from substantial, irreversible environmental modifications. Normally, however, such a community will not include species whose presence or abundance is attributable to the introduction of pollutants that will be eliminated by compliance by all sources with section 301(b)(2) of the CWA, and may not include species whose presence or abundance is or would be attributable to the imposition of alternative effluent limitations pursuant to section 316(a) of the CWA in place of otherwise applicable effluent limitations under section 301 or section 306 of the CWA.

“Representative important species” means species which are representative, in terms of their biological needs, of a balanced, indigenous community of shellfish, fish and wildlife in the body of water into which a discharge of heat is made. (*Water Pollution Control Board; 327 IAC 5-7-2; filed Sep 24, 1987, 3:00 pm: 11 IR 648; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-7-3 Early screening of applications**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 3. (a) Any initial application for a CWA section 316(a) variance shall include the following early screening information:

- (1) A description of the alternative effluent limitations requested.
- (2) A general description of the method by which the discharger proposes to demonstrate that the otherwise applicable thermal discharge effluent limitations are more stringent than necessary.
- (3) A general description of the type of data, studies,

experiments, and other information which the discharger intends to submit for the demonstration.

(4) Such data and information as may be available to assist the commissioner in selecting the appropriate representative important species.

(b) After submitting the early screening information under subsection (a), the discharger shall consult with the commissioner at the earliest practicable time to discuss the discharger's early screening information. Within ninety (90) days after the application is filed, the discharger shall submit for the commissioner's approval a detailed plan of study which the discharger will undertake to support its demonstration under section 316(a) of the CWA. The discharger shall specify the nature and extent of the following type of information to be included in the plan of study:

- (1) Biological.
- (2) Hydrographical and meteorological data.
- (3) Physical monitoring data.
- (4) Engineering or diffusion models.
- (5) Laboratory studies.
- (6) Representative important species.
- (7) Other relevant information.

In selecting representative important species, special consideration shall be given to species mentioned in applicable water quality standards. After the discharger submits its detailed plan of study, the commissioner shall either approve the plan or specify any necessary revisions to the plan. The discharger shall provide any additional information or studies which the commissioner subsequently determines necessary to support the demonstration, including such studies or inspections as may be necessary to select representative important species. The discharger may provide any additional information or studies which the discharger feels are appropriate to support the demonstration.

(c) Any application for the renewal of a CWA section 316(a) variance need include only such information described in subsections (a) and (b) as the commissioner requests not later than one (1) year prior to the date on which the renewal application is due unless the commissioner can demonstrate good cause for making such a request at a later date.

(d) The commissioner shall promptly notify the Secretary of Commerce, the Secretary of the Interior, and any affected state of the filing of the request and shall consider any timely recommendations they submit.

(e) In making the demonstration, the discharger shall consider any information or guidance published by EPA to assist in making such demonstrations.

(f) If an applicant desires a ruling on a CWA section 316(a) application before the ruling on any other necessary permit terms and conditions, it shall so request upon

filing its application under subsection (a). This request shall be granted or denied at the discretion of the commissioner. (*Water Pollution Control Board; 327 IAC 5-7-3; filed Sep 24, 1987, 3:00 p.m.: 11 IR 649; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1768; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-7-4 Criteria and standards for granting alternate thermal effluent limitations**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 4. (a) If the discharger demonstrates to the satisfaction of the commissioner that thermal effluent limitations required under section 301 or 306 of the CWA are more stringent than necessary to assure the protection and propagation of a balanced, indigenous community of shellfish, fish and wildlife in and on the body of water into which the discharge is made, less stringent alternative thermal limitations may be established for the discharge. This demonstration must show that the alternative effluent limitations desired by the discharger, considering the cumulative impact of its thermal discharge together with all other significant impacts on the species affected, will assure the protection and propagation of a balanced, indigenous community of shellfish, fish and wildlife in and on the body of water into which the discharge is to be made.

(b) In determining whether or not the protection and propagation of the affected species will be assured, the commissioner may consider any information contained or referenced in any applicable thermal water quality criteria and supplemental information published by the administrator under section 304(a) of the CWA, or any other information he deems relevant.

(c)(1) Existing dischargers may base their demonstration upon the absence of prior appreciable harm in lieu of predictive studies. Any such demonstrations shall show:

(A) that no appreciable harm has resulted from the thermal component of the discharge (taking into account the interaction of such thermal component with other pollutants, such as oxygen-demanding pollutants and toxic pollutants, and the additive effect of other thermal sources) to a balanced, indigenous community of shellfish, fish and wildlife in and on the body of water into which the discharge has been made; or  
(B) that, despite the occurrence of such previous harm, the desired alternative effluent limitations (or appropriate modifications thereof) will nevertheless preclude the occurrence of further appreciable harm and, thus, assure the protection and propagation of a balanced, indigenous community of shellfish, fish and wildlife in

and on the body of water into which the discharge is made.

(2) In determining whether or not prior appreciable harm has occurred, the commissioner shall consider length of time in which the applicant has been discharging and the nature of the discharge. (*Water Pollution Control Board; 327 IAC 5-7-4; filed Sep 24, 1987, 3:00 pm: 11 IR 649; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**Rule 8. Extension of Compliance Dates Under Section 301(i) of the CWA (Repealed)**

(*Repealed by Water Pollution Control Board; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1479; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3380*)

**Rule 8.5. Criteria for Extending Compliance Dates under Section 301(k) of the CWA (Repealed)**

(*Repealed by Water Pollution Control Board; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1479*)

**Rule 9. Best Management Practices; Establishment**

327 IAC 5-9-1	Purpose
327 IAC 5-9-2	Applicability of best management practices (BMPs)
327 IAC 5-9-3	Permit terms and conditions

**327 IAC 5-9-1 Purpose**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 1. This rule (327 IAC 5-9) describes how best management practices (BMPs) for ancillary industrial activities under section 304(e) of the CWA shall be reflected in permits, including best management practices promulgated in effluent limitations guidelines under section 304 of the CWA or established on a case-by-case basis in permits under section 402(a)(1) of the CWA. (*Water Pollution Control Board; 327 IAC 5-9-1; filed Sep 24, 1987, 3:00 pm: 11 IR 651; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-9-2 Applicability of best management practices (BMPs)**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 2. (a) Dischargers who use, manufacture, store, handle, or discharge any pollutant listed as toxic under section 307(a)(1) of the CWA, any pollutant listed as hazardous under section 311 of the CWA, or on a case-by-case basis, other materials which may cause pollution

if they are discharged are subject to the requirements of this rule for all activities which may result in significant amounts of those pollutants reaching waters of the state. These activities are ancillary manufacturing operations including the following:

- (1) Materials storage areas.
- (2) In-plant transfer.
- (3) Process and material handling areas.
- (4) Loading and unloading operations.
- (5) Plant site runoff.
- (6) Sludge and waste disposal areas.

(b) For purposes of this rule, "manufacture" means to produce as an intermediate or final product or byproduct.

(c) BMP programs shall be developed in accordance with good engineering practices.

(d) The BMP program shall:

- (1) be documented in narrative form, and shall include any necessary plot plans, drawings, or maps;
- (2) establish specific objectives for the control of toxic and hazardous pollutants as follows:

(A) Each facility component or system shall be examined for its potential for causing a release of significant amounts of toxic or hazardous pollutants to waters of the United States due to equipment failure, improper operation, or natural phenomena such as rain or snowfall, etc.

(B) Where experience indicates a reasonable potential for equipment failure, for example, a tank overflow or leakage, natural condition, for example, precipitation, or other circumstances to result in significant amounts of toxic or hazardous pollutants reaching surface waters, the program should include a prediction of the direction, rate of flow, and total quantity of toxic or hazardous pollutants which could be discharged from the facility as a result of each condition or circumstance; and

(3) establish specific best management practices to meet the objectives identified under subdivision (2), addressing each component or system capable of causing a release of significant amounts of toxic or hazardous pollutants to the waters of the state.

(e) Also, the BMP program:

- (1) may reflect requirements for Spill Prevention Control Countermeasure (SPCC) plans under section 311 of the CWA and may incorporate any part of such plans into the BMP program by reference;
- (2) shall assure the proper management of solid and hazardous waste in accordance with regulations promulgated under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA) (40 U.S.C. 6901 et seq.). Management practices required under RCRA regulations shall be expressly incorporated into the BMP program; and

(3) shall address the following points for the ancillary activities:

- (A) Statement of policy.
- (B) Spill control committee.
- (C) Material inventory.
- (D) Material compatibility.
- (E) Employee training.
- (F) Reporting and notification procedures.
- (G) Visual inspections.
- (H) Preventive maintenance.
- (I) Housekeeping.
- (J) Security.

(f) The BMP program must be clearly described and submitted as part of the permit application. An application which does not contain a BMP program shall be considered incomplete. Upon receipt of the application, the commissioner shall approve or modify the program in accordance with the requirements of this section. The BMP program as approved or modified shall be included in the draft permit. The BMP program shall be subject to the applicable permit issuance requirements of this rule, resulting in the incorporation of the program (including any modifications of the program resulting from the permit issuance procedures) into the final permit.

(g) Proposed modifications to the BMP program which affect the discharger's permit obligations shall be submitted to the commissioner for approval. If the commissioner approves the proposed BMP program modification, the permit shall be modified in accordance with this rule, provided that the commissioner may waive the requirements for public notice and opportunity for hearing on such modification if it is determined that the modification is not significant. The BMP program, or modification thereof, shall be fully implemented as soon as possible but not later than one (1) year after permit issuance, modification, or revocation and reissuance unless the commissioner specifies a later date in the permit.

(h) The discharger shall maintain a description of the BMP program at the facility and shall make the description available to the commissioner upon request.

(i) The owner or operator of a facility subject to this section shall amend the BMP program whenever there is a change in facility design, construction operation, or maintenance which materially affects the facility's potential for discharge of significant amounts of hazardous or toxic pollutants into the waters of the state.

(j) If the BMP program proves to be ineffective in achieving the general objective of preventing the release of significant amounts of toxic or hazardous pollutants to those waters and the specific objectives and requirements under subsections (d) and (e), the permit and/or the BMP program shall be subject to modification to incorporate

revised BMP requirements. (*Water Pollution Control Board; 327 IAC 5-9-2; filed Sep 24, 1987, 3:00 p.m.: 11 IR 651; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1771; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 5-9-3 Permit terms and conditions

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 3. (a) BMPs specified by an applicable EPA-promulgated regulation under section 304(e) of the CWA shall be expressly incorporated into an NPDES permit.

(b) In establishing BMP requirements in an NPDES permit on a case-by-case basis as the commissioner determines to be necessary to carry out the provisions under section 402(a)(1) of the CWA, the commissioner shall consider the following factors:

- (1) toxicity of the pollutant(s);
- (2) quantity of the pollutant(s) used, produced, or discharged;
- (3) history of NPDES permit violations;
- (4) history of significant leaks or spills of toxic or hazardous pollutants;
- (5) potential for adverse impact on public health, e.g., proximity to a public water supply or the environment, e.g., proximity to a sport or commercial fishery; and
- (6) any other factors determined to be relevant to the control of toxic or hazardous pollutants.

BMP requirements which may be imposed under this subsection include, without limitation, dikes and other containment structures, stormwater diversion structures, and similar measures as well as operational practices such as periodic plant inspections, preventive maintenance, and plant housekeeping.

(c) Best management practices may be established in permits under subsection (b) alone or in combination with those required under subsection (a). (*Water Pollution Control Board; 327 IAC 5-9-3; filed Sep 24, 1987, 3:00 pm: 11 IR 651; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### Rule 10. Additional Treatment Requirements

327 IAC 5-10-1	Purpose
327 IAC 5-10-2	Phosphorus removal
327 IAC 5-10-3	Controlled discharges
327 IAC 5-10-4	Lake dischargers and sinkhole dischargers
327 IAC 5-10-5	Small sanitary discharge
327 IAC 5-10-6	Disinfection requirements
327 IAC 5-10-7	Connection and regionalization

### 327 IAC 5-10-1 Purpose

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 1. This rule (327 IAC 5-10) establishes treatment requirements which are applicable to certain discharges of pollutants in addition to any other treatment requirements and effluent limitations imposed under this article (327 IAC 5). Where applicable, such additional treatment requirements shall be implemented through the inclusion of effluent limitations and other appropriate terms and conditions in the discharger's NPDES permit pursuant to section 301(b)(1)(C) of the CWA and 327 IAC 5-2-10(e). (*Water Pollution Control Board; 327 IAC 5-10-1; filed Sep 24, 1987, 3:00 pm: 11 IR 652; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 5-10-2 Phosphorus removal

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 2. (a) Phosphorus removal or control facilities shall be required for a point source discharge where:

(1)(A) the daily discharge, as a monthly average, contains ten (10) pounds or more of total phosphorus (calculated as elemental phosphorus – P); and

(B)(i) the discharge is located within the Lake Michigan or Lake Erie Basins; or

(ii) the discharge directly enters a lake or reservoir or enters a tributary within forty (40) miles upstream of a lake or reservoir; or

(2) the commissioner determines, irrespective of the quantitative total phosphorus content of the discharge, that phosphorus reduction is needed to protect downstream water uses or to insure that water quality standards applicable to the affected waters of the state are met.

(b) Where phosphorus removal is required under subsection (a) for a POTW, the treatment facility shall achieve a degree of reduction in total phosphorus in the discharge (calculated as elemental phosphorus) as prescribed in Table I below, or produce an effluent containing no more than 1.0 mg/l of elemental phosphorus as a monthly average, whichever is more stringent.

Table I

Phosphorus (P) Level in Raw Sewage (In mg/l)	Required % Removed (%)
greater than or equal to 4	80%
less than 4, greater than or equal to 3	75%
less than 3, greater than or equal to 2	70%
less than 2, greater than or equal to 1	65%
less than 1	60%

(c) Where phosphorus removal is required under subsection (a) for a point source other than a POTW, the amount of total phosphorus (calculated as elemental phosphorus) in the discharge from said source shall be

reduced by at least ninety (90) percent, unless the person owning or operating the point source can affirmatively demonstrate that such degree of phosphorus reduction is technologically infeasible and that an alternate reduction rate is warranted because of factors unique to his facility.

(d) Notwithstanding subsection (b) or (c), a point source shall achieve the degree of phosphorus reduction necessary to comply with an applicable water quality standard for phosphorus. (*Water Pollution Control Board; 327 IAC 5-10-2; filed Sep 24, 1987, 3:00 pm: 11 IR 652; errata, 15 IR 1393; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 5-10-3 Controlled discharges

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 3. (a) For all new and existing municipal-type wastewater treatment plants (including POTWs, state owned facilities, and semipublic facilities) with multiple cell waste stabilization ponds operating as controlled discharges (facilities which provide treatment by use of constructed wetlands may be included with this group, so long as other requirements are met), a discharge may occur at any time, provided a minimum dilution ratio with the receiving stream of 10:1 (ten (10) parts stream water to one (1) part effluent) is maintained. Dilution ratio is to be determined by measuring actual flow of the receiving stream upstream of the treatment plant discharge and then regulating the plant's discharge flow such that the discharge rate does not exceed one-tenth ( $\frac{1}{10}$ ) of the measured stream flow. Plants operated in this manner are subject to the alternative effluent limitations contained in 327 IAC 5-5-3(b). In addition, water quality-based limitations for ammonia or any other toxic substance may be included in the permit if ammonia or the toxic substance is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable narrative or numeric water quality criteria or value promulgated under 327 IAC 2-1 or 327 IAC 2-1.5.

(b) Upstream flow is to be measured using a gauging station which is calibrated at least annually. If a USGS gauging station is not available, the permittee is required to install and maintain a gauging station which is calibrated by a temporary or permanent flow measuring device.

(c) Treatment facilities which are designed and operated as controlled discharge plants (multicelled) and which are not either hydraulically or organically overloaded are not required to provide disinfection of their effluent due to the natural attrition of fecal-type bacteria

resulting from the long retention time.

(d) The construction of any new controlled discharge waste stabilization pond-type treatment plant with a discharge either directly to a lake or reservoir (either natural or manmade impoundments) or within two (2) miles upstream of such generally will not be approved.

(e) It is understood, however, that there may be cases in which there is no other treatment alternative within the financial capability of the prospective discharger and a controlled discharge must be considered. In these cases an in-depth review by the office of water management will be necessary to determine which conditions are applicable and what effects the discharge will have in each individual case. (*Water Pollution Control Board; 327 IAC 5-10-3; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1772; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1472; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 5-10-4 Lake dischargers and sinkhole dischargers

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 4. (a) The following effluent limitations apply to all POTWs or other sanitary discharges directly to lakes or reservoirs (either natural or manmade impoundments) or within two (2) miles upstream from such a waterbody, and to discharges of sanitary wastewater directly to sinkholes, underground streams, or to surface streams within two (2) miles upstream of such features (where a discharge of industrial process wastewater contains a sanitary component, these standards apply only to the sanitary component of such discharges):

(1) Concentrations table as follows:

Pollutant	Monthly Average Concentrations (mg/l)	Weekly Average Concentrations (mg/l)
CBOD <sub>5</sub>	10	15
Total Suspended Solids (TSS)	12	18
T. Ammonia, as N		
Summer (May through November)	1.1	1.6
Winter (December through April)	1.6	2.4

(2) Ammonia nitrogen limitations are derived using conservation of mass principles, assuming no stream flow dilution ( $Q_{7,10}$ ) and using the criteria contained in 327 IAC 2-1-6(b)(5)(A), using year-round stream pH of seven and eight-tenths (7.8) s.u., instream tempera-

ture of twenty-five degrees Celsius (25°C) summer, ten degrees Celsius (10°C) winter, with the results rounded to the nearest one-tenth (0.1) milligram per liter. If the receiving stream is regulated by criteria contained in 327 IAC 2-1-6(b)(5)(B) through 327 IAC 2-1-6(b)(5)(D) or 327 IAC 2-1.5-8, these criteria will be used to determine water quality-based effluent limitations for ammonia in lieu of the criteria in subdivision (1) to derive appropriate ammonia nitrogen limitations.

(3) Dissolved oxygen in the effluent from any facility deemed to be a lake discharger or sinkhole discharger shall not fall below six (6.0) milligrams per liter minimum daily average.

(4) Notwithstanding the provisions of section 2(a) of this rule, effluent phosphorus for any lake discharger shall not exceed one (1.0) milligram per liter.

(5) In addition, water quality-based limitations for any other toxic substance may be included in the permit if the toxic substance is or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable narrative or numeric water quality criteria or value promulgated under 327 IAC 2-1 or 327 IAC 2-1.5.

(b) If deemed necessary to comply with water quality standards, such as discharges to streams which are classified for cold water aquatic life, more stringent limitations may be applied on a case-by-case basis.

(c) Additional requirements for sinkhole dischargers include the following:

(1) Disinfection is required on a year-round basis. Where chlorine or bromine compounds are used as the disinfectant, dechlorination is required in accordance with section 6(c)(3) of this rule.

(2) Effluent limitations, monitoring, and reporting requirements for E. coli will be included in the NPDES permit.

(3) As part of any initial application and as part of any subsequent application for renewal, the following information shall be included:

(A) A statement as to why a direct discharge to surface waters is impractical. This statement should address the proximity of surface waters and the cost associated with locating or relocating the discharge to such waters.

(B) The results of two (2) dye-tracing studies, one (1) conducted during low flow conditions and one (1) conducted during high flow conditions. This study shall be signed by a qualified hydrologist and shall include a review and identification of all ground water users (private wells) within a five (5) mile radius and demonstrate to the extent possible the direction of movement and ultimate fate of

ground water in the area. Sampling shall also be conducting of any readily accessible cave streams and at any rises. A diligent effort to notify all potentially affected ground water users in the area of the intent to discharge and the dye-tracing study shall be made, which may include a public notice.

(4) If a dye-tracing study conducted as required by subdivision (3) indicates the presence of effluent in private wells (or the probability of such for new discharges):

(A) the permittee (or applicant) shall conduct routine (a minimum of twice annually, once during high flow and once during low flow conditions) monitoring of each such well for nitrates and E. coli and shall report the results to the private users and the department of environmental management, office of water management; and

(B) permit limitations may be imposed based on drinking water standards from 327 IAC 8-2.

(5) If the well sampling required by subdivision (4) demonstrates that bacterial or nitrate contamination (above the values prescribed by 327 IAC 8-2) of private wells is occurring:

(A) the commissioner may require that the discharger supply potable water to any and all such affected parties; and

(B) the permit may be reopened to include revised effluent limitations.

(6) Before a NPDES permit is issued for any planned new discharge, all possible alternative methods of disposal shall be considered and evaluated. This NPDES permit will not be issued unless no alternative disposal method is feasible. Alternatives may include, but not be limited to, land application, connection with an existing POTW not discharging to a sinkhole, piping to surface waters, or off-site transport and disposal.

*(Water Pollution Control Board; 327 IAC 5-10-4; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1772; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1473; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3380; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 5-10-5 Small sanitary discharge**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 5. (a) All discharges from continuous discharge sanitary wastewater treatment facilities with a design flow of five-hundredths (0.05) MGD or less (which are not considered to be lake or sinkhole dischargers as defined under section 4 of this rule) are subject to the

following effluent limitations in the absence of a site-specific water quality modeled waste load allocation:

(1) Effluent limitations for CBOD<sub>5</sub>, TSS, and dissolved oxygen (DO):

Dilution Ratio (DR)	Summer	Winter
	CBOD <sub>5</sub> /TSS/DO	CBOD <sub>5</sub> /TSS/DO
DR less than or equal to 1	15 / 18 / 6	25 / 30 / 5
DR greater than 1, less than or equal to 3	20 / 24 / -	25 / 30 / -
DR greater than 3	25 / 30 / -	25 / 30 / -

(2) Limitations for ammonia nitrogen shall be determined as follows:

(A) Effluent limitations for NH<sub>3</sub>-N (ammonia nitrogen), calculated in accordance with subdivision (5)(C):

Summer	Winter
(May–November)	(December–April)
Ammonia nitrogen 1.06 + 0.43 DR	Ammonia nitrogen 1.58 + 0.69 DR

(B) When a properly designed and operated treatment facility qualifying for these limitations, which is not hydraulically or organically overloaded is of the type that is inherently capable of achieving the water quality standards for ammonia nitrogen, and ammonia nitrogen will not be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above a water quality criterion for ammonia under 327 IAC 2-1 or 327 IAC 2-1.5, the commissioner, based on cost and other considerations, may exclude the ammonia nitrogen effluent limitations or monitoring requirements from the permit. Such action is not considered to be a variance from the applicable water quality standards.

(C) When DR exceeds 16:1 for the summer period and 10:1 for the winter period, ammonia nitrogen limitations will not be included in the permit, unless the commissioner can demonstrate that ammonia will be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above a water quality criterion for ammonia under 327 IAC 2-1 or 327 IAC 2-1.5.

(3) The alternative limitations for total suspended solids applicable to waste stabilization lagoons as described under 327 IAC 5-5-3(b) may be applied to small sanitary discharges from properly designed, operated, and loaded waste stabilization lagoon treatment facilities in lieu of the limitations for TSS contained in subdivision (1).

(4) If deemed necessary to comply with water quality

standards contained under 327 IAC 2-1 or 327 IAC 2-1.5, such as discharges to streams which are classified for cold water aquatic life, more stringent limitations for dissolved oxygen and ammonia nitrogen may be applied on a case-by-case basis.

(5) The following conditions apply within this subsection:

(A) All effluent limitations in subdivisions (1) and (2) are expressed in milligrams per liter.

(B) CBOD<sub>5</sub>, TSS, and ammonia nitrogen limitations are monthly average concentrations. Weekly average limitations are one and five-tenths (1.5) multiplied by monthly average limitations, except where CBOD<sub>5</sub> equals twenty-five (25) milligrams per liter, in which case the weekly average is forty (40) milligrams per liter.

(C) Ammonia nitrogen limitations are derived using conservation of mass principles, applying one-half (½) stream flow (Q<sub>7,10</sub>) and using the criteria contained in 327 IAC 2-1-6(b)(5)(A), using year-round stream pH of seven and eight-tenths (7.8) s.u., instream temperature of twenty-five degrees Celsius (25°C) summer, ten degrees Celsius (10°C) winter, and two-tenths (0.2) milligrams per liter background ammonia nitrogen year-round. If the discharge is in the Great Lakes system, ammonia nitrogen limitations shall be derived using the criteria for ammonia nitrogen contained in 327 IAC 2-1.5-8, the stream design flow, mixing zone, and background determined in accordance with 327 IAC 5-2-11.4, and the procedures to calculate WQBELs under 327 IAC 5-2-11.6.

(D) DR is calculated as Q<sub>7,10</sub> of receiving stream divided by the design flow of the discharge.

(6) In addition, water quality-based limitations for any other toxic substance may be included in the permit if the toxic substance is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable narrative or numeric water quality criteria or value promulgated under 327 IAC 2-1 or 327 IAC 2-1.5.

(b) Continuous discharges include all discharges not designed, approved, and operated as controlled discharges from multicelled waste stabilization ponds.

(c) Industrial plants with small sanitary discharges mixing with other nontoxic, nonorganic, nonnutrient containing wastewaters, such as cooling water, ash sluicing, etc. prior to discharge may use the other wastewaters as dilution in applying the criteria of subsection (a). (*Water Pollution Control Board; 327 IAC 5-10-5; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1773; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1474; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3380; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 5-10-6 Disinfection requirements**

**Authority:** IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2;  
IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 6. (a) Disinfection is required of all sanitary discharges for the annual period of April 1 through October 31 except multicelled waste stabilization ponds which are adequately designed and operated and are not either hydraulically or organically overloaded and as provided in sections 3(b) and 4(d) of this rule.

(b) Disinfection is not required and is not expected to be practiced during the annual period of November 1 through March 31, except as necessary to comply with ORSANCO requirements (for discharges directly to the Ohio River), the requirements of other states for interstate waters, or the provision of section 4(d) of this rule. In cases where chlorination must be practiced during this period (such as to maintain sand filters), the maximum effluent limitation for chlorine and monitoring requirements for such remain in effect.

(c) The following are requirements for facilities using chlorine or other halogenated compounds as a disinfectant:

(1) For those sanitary dischargers designated as minor facilities (generally those with a population equivalent (PE) of less than ten thousand (10,000)), the residual chlorine concentration after disinfection (but prior to dechlorination) is to be maintained at a minimum of five-tenths (0.5) milligram per liter.

(2) For those sanitary dischargers designated as major facilities (those with a PE of ten thousand (10,000) or greater), no minimum residual chlorine limitation is applied, so long as the final effluent complies with bacteriological standards based on 327 IAC 2-1-6 or 327 IAC 2-1.5-8.

(3) For all sanitary discharges using chlorine or bromine compounds as a disinfectant or for filter or other equipment maintenance at any time, dechlorination is to be practiced such that the concentration of total residual chlorine (TRC), or where bromine is used TRO, in the final effluent does not exceed water quality-based effluent limitations. If these water quality-based limitations are below the LOQ, compliance with such limitations will be determined using the applicable procedures contained under 327 IAC 5-2-11.1 or 327 IAC 5-2-11.6.

(d) Facilities using a disinfectant other than chlorine or other halogen compounds may not contain E. coli in excess of one hundred twenty-five (125) per one hundred (100) milliliters as a geometric mean nor two hundred thirty-five (235) per one hundred (100) milliliters maximum during the disinfection season. (*Water Pollution*

*Control Board; 327 IAC 5-10-6; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1774; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1475; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 5-10-7 Connection and regionalization**

**Authority:** IC 13-7-15-1  
**Affected:** IC 13-7-15-1

Sec. 7. (a) If the commissioner finds it is in the interest of the health, safety, convenience, and welfare of the residents of any area, any person, publicly or semipublicly owned sewage treatment [*sic.*, *treatment*] systems may be ordered to connect to and/or receive and treat sewage from any other person or from an industry, shopping center, mobile home park, school, or housing development when such service and use will not result in irreparable injury to the receiving equipment or make impossible the rendering of the service previously rendered to the users of such equipment. The persons involved shall negotiate the terms for such connection and service, in accordance with the terms of IC 13-7-15-1.

(b) Any new school, mobile home park, motel, motor court, or motor hotel shall dispose of sewage through the use of a public sewerage system if the sewerage system is available within a reasonable distance from the facility.

(c) Any existing school, mobile home park, motel, motor court, or motor hotel with a direct discharge of sewage, as authorized by an NPDES permit shall connect to a public sewerage system, discontinue the direct discharge, and abandon their wastewater treatment plant if a public sewerage system becomes available at any time within a reasonable distance from the facility. In this instance, "reasonable distance" is related to cost. The intent of this provision is to encourage the entities mentioned in this section to compare the cost of connecting to a sewerage system against the cost to build or upgrade and operate a sewage treatment plant. (*Water Pollution Control Board; 327 IAC 5-10-7; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1775; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**Rule 11. Pretreatment Program; General Provisions (Repealed)**

*(Repealed by Water Pollution Control Board; filed Oct 10, 2000, 3:02 p.m.: 24 IR 317)*

**Rule 12. Applicable Pretreatment Standards and Other Pretreatment Requirements (Repealed)**

*(Repealed by Water Pollution Control Board; filed Oct 10, 2000, 3:02 p.m.: 24 IR 317)*

**Rule 13. POTW Pretreatment Programs (Repealed)**

*(Repealed by Water Pollution Control Board; filed Oct 10, 2000, 3:02 p.m.: 24 IR 317)*

**Rule 14. Revision of Categorical Pretreatment Standards to Reflect Consistent Removal of Pollutants by a POTW (Repealed)**

*(Repealed by Water Pollution Control Board; filed Oct 10, 2000, 3:02 p.m.: 24 IR 317)*

**Rule 15. Industrial Waste Pretreatment Permit Program (Repealed)**

*(Repealed by Water Pollution Control Board; filed Oct 10, 2000, 3:02 p.m.: 24 IR 317)*

**Rule 16. General Provisions**

327 IAC 5-16-1	Purpose and objectives
327 IAC 5-16-2	Local authority
327 IAC 5-16-3	Public access to information and confidentiality claims
327 IAC 5-16-4	Enforcement
327 IAC 5-16-5	Reporting requirements for POTWs and industrial users
327 IAC 5-16-6	Upset
327 IAC 5-16-7	Bypass

**327 IAC 5-16-1 Purpose and objectives**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 1. (a) The pretreatment rules establish a state program to control the discharge of industrial pollutants into publicly owned treatment works (POTWs), as defined in 327 IAC 5-1.5-48, to implement 40 CFR 403 and related provisions of the federal Clean Water Act, 33 U.S.C. §1251.

(b) The state pretreatment program has the following three (3) objectives:

- (1) To prevent the introduction of pollutants into a POTW that will interfere with the operation of a POTW, including interference with the use or disposal of municipal sludge.
- (2) To prevent the introduction of pollutants into a POTW that will pass through the treatment works without receiving effective treatment or otherwise be incompatible with such works.
- (3) To improve opportunities to recycle and reclaim municipal and industrial wastewaters and sludges.

(c) The pretreatment rules apply to:

- (1) new or existing industries that discharge by direct connection or indirectly by truck, rail, or other means, nondomestic wastes into POTWs; and
- (2) POTWs that receive or may receive discharges of nondomestic wastes from those industries.

(d) Unless otherwise indicated, any reference to a provision of the Code of Federal Regulations in the pretreatment rules refers to the July 1, 1999, revision. *(Water Pollution Control Board; 327 IAC 5-16-1; filed Oct 10, 2000, 3:02 p.m.: 24 IR 290)*

**327 IAC 5-16-2 Local authority**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 2. Nothing in the pretreatment rules is intended to affect any pretreatment requirements, including any standards or prohibitions, established by local ordinance of any political subdivision of the state as long as the local requirements are not less stringent than any set forth in national pretreatment standards or any other requirements or prohibitions established under the Clean Water Act or the pretreatment rules. *(Water Pollution Control Board; 327 IAC 5-16-2; filed Oct 10, 2000, 3:02 p.m.: 24 IR 290)*

**327 IAC 5-16-3 Public access to information and confidentiality claims**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 5-14-3-8; IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 3. (a) The following shall be available to the public for inspection and copying without restriction during normal hours of operation and the fee assessed for copying costs shall be in accordance with the uniform copying fee authorized under IC 5-14-3-8(c):

- (1) Applications for IWP permits.
- (2) Permits (draft and final).
- (3) Statements of basis.
- (4) Effluent data from industrial users.
- (5) Submissions from POTWs transmitted to the department under this article.
- (6) Public comments on requests for POTW pretreatment program approval or for authority to revise discharge limits for pollutants consistently removed by the POTW.

(b) Public access to other information, including information submitted to the department under claim of confidentiality, shall be governed by 327 IAC 12.1. *(Water Pollution Control Board; 327 IAC 5-16-3; filed Oct 10, 2000, 3:02 p.m.: 24 IR 290)*

**327 IAC 5-16-4 Enforcement**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-14-10; IC 13-18-4; IC 13-30-3; IC 13-30-4

Sec. 4. (a) A violation of the pretreatment rules may:

- (1) subject a person causing or contributing to the violation to administrative or judicial enforcement proceedings, under IC 13-30-3, and the penalties provided under IC 13-30-4;
- (2) be cause for:
- (A) modification;
  - (B) revocation and reissuance; or
  - (C) termination;
- of an industrial waste pretreatment permit or an NPDES permit; and
- (3) warrant the invocation of emergency procedures under IC 13-14-10.
- (b) The initiation of any action in response to a violation of the pretreatment rules does not preclude initiation of any other response.
- (c) As used in this section, a violation of the pretreatment rules includes the following:
- (1) The indirect discharge of pollutants in contravention of an applicable pretreatment standard or other applicable discharge limitation.
  - (2) The indirect discharge of pollutants without a permit from a significant industrial discharger as determined by the control authority.
  - (3) A violation of discharge limitations or other terms and conditions of the permit where an IWP permit is required under the pretreatment rules.
  - (4) Failure to comply with any other applicable pretreatment requirement.
  - (5) Failure of a POTW subject to 327 IAC 5-19 to develop a POTW pretreatment program or implement and enforce an approved POTW pretreatment program in compliance with the terms and conditions of its NPDES permit.
  - (6) Failure to:
    - (A) allow entry, inspection, and monitoring by representatives of the commissioner when requested in accordance with applicable law; or
    - (B) carry out monitoring, recording, and reporting required under this article.
- (d) With respect to an industrial user of a POTW with an approved POTW pretreatment program, initiation of enforcement proceedings by the POTW against the industrial user shall not preclude the commissioner from independently taking appropriate enforcement measures against the industrial user for a violation of the pretreatment rules. (*Water Pollution Control Board; 327 IAC 5-16-4; filed Oct 10, 2000, 3:02 p.m.: 24 IR 290*)

### **327 IAC 5-16-5 Reporting requirements for POTWs and industrial users**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4; IC 13-18-11

Sec. 5. (a) All POTWs and industrial users shall comply with the applicable reporting requirements of 40 CFR 403.12. Additionally, reporting of spills into a POTW or of upsets in pretreatment facilities may be required of an industrial user by its control authority.

(b) The reports required by 40 CFR 403.12 or 327 IAC 5-21-10 must be signed by one (1) of the following:

(1) A responsible corporate officer. As used in this subdivision, "responsible corporate officer" means:

(A) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(B) the manager of one (1) or more manufacturing, production, or operation facilities employing more than two hundred fifty (250) persons or having gross annual sales or expenditures exceeding twenty-five million dollars (\$25,000,000) (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) A general partner or proprietor or manager if the industrial user submitting the reports is a partnership or sole proprietorship, respectively.

(3) A duly authorized representative of the individual designated in either subdivision (1) or (2) if:

(A) the authorization is made in writing by the individual described in either subdivision (1) or (2);

(B) the authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the industrial discharge originates, such as the position of plant manager, operator of a well, or well field superintendent, or a position of equivalent responsibility, or having overall responsibility for environmental matters for the company; and

(C) the written authorization is submitted to the control authority.

(4) If an authorization under subdivision (3) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility or overall responsibility for environmental matters for the company, a new authorization satisfying the requirements of subdivision (3) must be submitted to the control authority prior to or together with any reports to be signed by an authorized representative.

(c) An industrial user subject to the reporting requirements of this section shall maintain records of the monitoring activities in accordance with 327 IAC 5-2-14. These records shall be made available, upon request, to the commissioner, the regional administrator, and the

POTW to which the industrial user discharges its wastewater.

(d) A POTW to which reports are submitted by an industrial user under this section shall retain such reports for a minimum of three (3) years and shall make such reports available for inspection and copying by the commissioner and the regional administrator. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the industrial user, the operation of the approved POTW pretreatment, or when requested by the commissioner or the regional administrator.

(e) A report required by this section that relates to the actual operation of or discharge from a pretreatment facility must be prepared by or under the direction of a wastewater treatment plant operator certified under IC 13-18-11.

(f) A report required of a POTW by 40 CFR 403.12 must be signed by a responsible corporate officer, ranking elected official, or other duly authorized employee if that employee is responsible for the overall operation of the POTW. If an employee is authorized to submit such reports, a copy of the written authorization designating the employee must be submitted to the commissioner.

(g) An industrial user who wishes to demonstrate the affirmative defense of upset for noncompliance with any pretreatment standard or requirement in 327 IAC 5-2 shall, as provided in 327 IAC 5-18-3, comply with the reporting requirements and conditions under section 6 of this rule.

(h) An industrial user must report incidents of bypass or intent to bypass in accordance with section 7 of this rule. (*Water Pollution Control Board; 327 IAC 5-16-5; filed Oct 10, 2000, 3:02 p.m.: 24 IR 291*)

### **327 IAC 5-16-6 Upset**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 6. (a) As used in this section, "upset" means an exceptional incident in which there is unintentional and temporary noncompliance with any pretreatment standards or requirements in 327 IAC 5-2 because of factors beyond the reasonable control of the industrial user. An upset does not include:

- (1) noncompliance to the extent caused by operational error;
  - (2) improperly designed treatment facilities;
  - (3) inadequate treatment facilities;
  - (4) lack of preventive maintenance; or
  - (5) careless or improper operation.
- (b) An upset shall constitute an affirmative defense to

an action brought for noncompliance with the pretreatment standards or requirements if the requirements of subsection (c) are met.

(c) In order to establish an affirmative defense of upset, an industrial user must provide properly signed, contemporaneous operating logs, or other relevant evidence of the following facts:

(1) An upset occurred and the industrial user can identify the cause of the upset.

(2) The facility was being operated at the time in a prudent and workmanlike manner and in compliance with applicable operation and maintenance procedures.

(3) The industrial user submitted a report, to the POTW and control authority, within twenty-four (24) hours of becoming aware of the upset or within five (5) days, if an initial verbal report of the information is given to the required authority, and the report contained the following information:

(A) A description of the indirect discharge and cause of noncompliance.

(B) The period of noncompliance, including exact dates and times or the anticipated time the noncompliance is expected to continue if it is not corrected.

(C) Steps being taken or planned for reducing, eliminating, and preventing recurrence of the noncompliance.

(d) In any enforcement proceeding, an industrial user seeking to establish the occurrence of an upset shall have the burden of proof.

(e) In the usual exercise of prosecutorial discretion, the control authority may review any claims that noncompliance was caused by an upset. No determinations made in the course of the review constitute the commissioner's final action subject to judicial review. Industrial users will have the opportunity for a judicial determination on any claim of upset only in an enforcement action brought for noncompliance with the pretreatment standards or requirements.

(f) An industrial user shall control production or all discharges to the extent necessary to maintain compliance with the pretreatment standards or requirements upon reduction, loss, or failure of its treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies when, among other things, the primary source of power of the treatment facility is reduced, is lost, or has failed. (*Water Pollution Control Board; 327 IAC 5-16-6; filed Oct 10, 2000, 3:02 p.m.: 24 IR 292*)

### **327 IAC 5-16-7 Bypass**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 7. (a) The following definitions apply throughout this section:

(1) “Bypass” means the intentional diversion of waste streams from any portion of an industrial user’s treatment facility.

(2) “Severe property damage” means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(b) An industrial user may allow a bypass to occur if:

(1) it does not cause a violation of any pretreatment standard or requirement under 327 IAC 5-2; and

(2) it is for essential maintenance to assure efficient operation.

These bypasses are not subject to the provisions of subsections (c) and (d).

(c) The reporting requirements for a bypass are as follows:

(1) If an industrial user knows in advance of the need for a bypass, it shall submit prior notice to the control authority, if possible, at least ten (10) days before the date of the bypass.

(2) If an unanticipated bypass exceeds a pretreatment standard or requirement under 327 IAC 5-2, the industrial user shall give oral notice to the control authority within twenty-four (24) hours from the time the industrial user becomes aware of the bypass. A written submission shall also be provided to the control authority within five (5) days of the time the industrial user becomes aware of the bypass. The written submission must contain the following:

(A) A description of the bypass and its cause.

(B) The duration of the bypass, including exact dates and times and the anticipated time it is expected to continue if the bypass has not been corrected.

(C) The steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.

(d) Bypass is prohibited, and the control authority may take enforcement action against an industrial user for a bypass unless the following are demonstrated:

(1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage.

(2) There were no feasible alternatives to the bypass, such as any of the following:

(A) The use of auxiliary treatment facilities.

(B) Retention of untreated wastes.

(C) Maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering

judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventative maintenance.

(3) The industrial user submitted notices as required under subsection (c).

(4) A planned bypass is approved in advance by the control authority after determining that the bypass will not violate subdivisions (1) through (3).

*(Water Pollution Control Board; 327 IAC 5-16-7; filed Oct 10, 2000, 3:02 p.m.: 24 IR 292)*

### Rule 17. Definitions

327 IAC 5-17-1	Applicability
327 IAC 5-17-2	“Approved POTW pretreatment program” defined
327 IAC 5-17-3	“Categorical pretreatment standards” defined
327 IAC 5-17-4	“Commissioner” defined
327 IAC 5-17-5	“Control authority” defined
327 IAC 5-17-6	“Discharge” defined
327 IAC 5-17-7	“Existing source” defined
327 IAC 5-17-8	“Four (4) day average discharge” defined
327 IAC 5-17-9	“Industrial user” defined
327 IAC 5-17-10	“Industrial wastewater pretreatment permit” or “IWP permit” defined
327 IAC 5-17-11	“Interference” defined
327 IAC 5-17-12	“National pretreatment standard” defined
327 IAC 5-17-13	“New source” defined
327 IAC 5-17-14	“Overflow” defined
327 IAC 5-17-15	“Pass through” defined
327 IAC 5-17-16	“Pollutant removal” defined
327 IAC 5-17-17	“POTW” or “publicly owned treatment works” defined
327 IAC 5-17-18	“Pretreatment” defined
327 IAC 5-17-19	“Pretreatment requirements” defined
327 IAC 5-17-20	“Pretreatment rules” defined
327 IAC 5-17-21	“Pretreatment standards” defined
327 IAC 5-17-22	“Removal credit” defined
327 IAC 5-17-23	“Significant industrial user” or “SIU” defined
327 IAC 5-17-24	“Significant noncompliance” defined
327 IAC 5-17-25	“Sludge requirements” defined

### 327 IAC 5-17-1 Applicability

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 1. In addition to the applicable definitions contained in 327 IAC 5-1.5 and 327 IAC 5-2-11(a), the definitions in this rule apply to the pretreatment rules. *(Water Pollution Control Board; 327 IAC 5-17-1; filed Oct 10, 2000, 3:02 p.m.: 24 IR 293)*

### 327 IAC 5-17-2 “Approved POTW pretreatment program” defined

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 2. “Approved POTW pretreatment program” means a program administered by a publicly owned treatment works that meets the criteria established in 327 IAC 5-19-3 and that has been approved by the regional administrator or the commissioner in accordance with 327 IAC 5-19-5. (*Water Pollution Control Board; 327 IAC 5-17-2; filed Oct 10, 2000, 3:02 p.m.: 24 IR 293*)

**327 IAC 5-17-3 “Categorical pretreatment standards” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 3. “Categorical pretreatment standards” means national pretreatment standards, specifying quantities or concentrations of pollutants or pollutant properties that may be discharged or introduced to a POTW by an existing or new industrial user in a specific industrial subcategory, that are established by EPA, under Section 307(b) or 307(c) of the Clean Water Act (33 U.S.C. 1317(b) or 33 U.S.C. 1317(c)) as separate regulations under the appropriate subpart of 40 CFR Chapter I, Subchapter N. (*Water Pollution Control Board; 327 IAC 5-17-3; filed Oct 10, 2000, 3:02 p.m.: 24 IR 293*)

**327 IAC 5-17-4 “Commissioner” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 4. “Commissioner” means the commissioner of the Indiana department of environmental management. (*Water Pollution Control Board; 327 IAC 5-17-4; filed Oct 10, 2000, 3:02 p.m.: 24 IR 293*)

**327 IAC 5-17-5 “Control authority” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 5. “Control authority” means the commissioner or, in the case of a POTW with an approved POTW pretreatment program, the POTW. (*Water Pollution Control Board; 327 IAC 5-17-5; filed Oct 10, 2000, 3:02 p.m.: 24 IR 294*)

**327 IAC 5-17-6 “Discharge” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 6. “Discharge” means the introduction of pollutants into a POTW from any nondomestic source regulated under Section 307(b), 307(c), or 307(d) of the Clean Water Act (33 U.S.C. 1317(b), 33 U.S.C. 1317(c), or 33 U.S.C. 1317(d)). (*Water Pollution Control Board; 327 IAC 5-17-6; filed Oct 10, 2000, 3:02 p.m.: 24 IR 294*)

**327 IAC 5-17-7 “Existing source” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 7. “Existing source” means an industrial user that is not a new source. (*Water Pollution Control Board; 327 IAC 5-17-7; filed Oct 10, 2000, 3:02 p.m.: 24 IR 294*)

**327 IAC 5-17-8 “Four (4) day average discharge” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 8. “Four (4) day average discharge” means the calculated result of totaling the mass or average concentration of all daily discharges sampled or measured during four (4) consecutive sampling days, though not necessarily consecutive calendar days, divided by the number of daily discharges sampled or measured. (*Water Pollution Control Board; 327 IAC 5-17-8; filed Oct 10, 2000, 3:02 p.m.: 24 IR 294*)

**327 IAC 5-17-9 “Industrial user” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 9. “Industrial user” means an indirect discharger pursuant to 327 IAC 5-1.5-25. (*Water Pollution Control Board; 327 IAC 5-17-9; filed Oct 10, 2000, 3:02 p.m.: 24 IR 294*)

**327 IAC 5-17-10 “Industrial wastewater pretreatment permit” or “IWP permit” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 10. “Industrial wastewater pretreatment permit” or “IWP permit” means a permit issued directly by the commissioner to an industrial user. An IWP permit is not a permit issued by a POTW to an industrial user. (*Water Pollution Control Board; 327 IAC 5-17-10; filed Oct 10, 2000, 3:02 p.m.: 24 IR 294*)

**327 IAC 5-17-11 “Interference” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 11. “Interference” means a discharge that, alone or in conjunction with a discharge or discharges from other sources, does one (1) of the following:

- (1) Inhibits or disrupts the POTW, its treatment processes or operations, its sludge processes, or its selected sludge use or disposal methods.
- (2) Causes a violation of any requirement of the POTW’s NPDES permit, including an increase in the magnitude or duration of a violation.
- (3) Prevents the use of the POTW’s sewage sludge or its sludge disposal method selected in compliance with the following statutory provisions, regulations, or permits issued thereunder or more stringent state or local regulations:

(A) Section 405 of the Clean Water Act (33 U.S.C. 1345).

(B) The Solid Waste Disposal Act (SWDA) (42 U.S.C. 6901), including:

- (i) Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA); and
- (ii) the rules contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA (42 U.S.C. 6941).

(C) The Clean Air Act (42 U.S.C. 7401).

(D) The Toxic Substances Control Act (15 U.S.C. 2601).

*(Water Pollution Control Board; 327 IAC 5-17-11; filed Oct 10, 2000, 3:02 p.m.: 24 IR 294)*

**327 IAC 5-17-12 “National pretreatment standard” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 12. “National pretreatment standard” means any regulation that applies to industrial users and contains pollutant discharge limits promulgated by the EPA in accordance with Section 307(b) and 307(c) of the federal Clean Water Act (33 U.S.C. 1317(b) and 33 U.S.C. 1317(c))\*.

\*33 U.S.C. 1317(b) and 33 U.S.C. 1317(c) are incorporated by reference. Copies of these publications may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255,

Indianapolis, Indiana 46206. *(Water Pollution Control Board; 327 IAC 5-17-12; filed Oct 10, 2000, 3:02 p.m.: 24 IR 294)*

**327 IAC 5-17-13 “New source” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 13. (a) “New source” means any building, structure, facility, or installation that is discharging or may discharge pollutants, and its construction commenced after the publication of proposed pretreatment standards under Section 307(c) of the Clean Water Act (33 U.S.C. 1317(c)) that will be applicable to the source, if those standards are thereafter promulgated in accordance with Section 307(c) of the Clean Water Act, provided one (1) of the following conditions is met:

- (1) The building, structure, facility, or installation is constructed at a site where no other source is located.
- (2) The building, structure, facility, or installation totally replaces the process or production equipment that causes the discharge of pollutants at an existing source.

(3) The production of wastewater generating processes of the building, structure, facility, or installation is substantially independent of an existing source at the same site. In determining whether these processes are substantially independent, the following factors will be considered:

(A) The extent to which the new facility is integrated with the existing plant.

(B) The extent to which the new facility is engaged in the same general type of activity as the existing source.

(b) Construction on a site at which an existing source is located results in a modification rather than a new source if the construction does not create a new building, structure, facility, or installation meeting the criteria of subsection (a)(2) or (a)(3) but otherwise alters, replaces, or adds to existing process or production equipment.

(c) Construction of a new source as defined in this section has commenced if the owner or operator has:

(1) begun, or caused to begin, as part of a continuous on-site construction program:

(A) any placement, assembly, or installation of facilities or equipment; or

(B) significant site preparation work, including clearing, excavation, or removal of existing buildings, structures, or facilities that is necessary for the placement, assembly, or installation of new source facilities or equipment; or

(2) entered into a binding contractual obligation for the

purchase of facilities or equipment that are intended to be used in its operation within a reasonable time.

Options to purchase, contracts that can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this section. (*Water Pollution Control Board; 327 IAC 5-17-13; filed Oct 10, 2000, 3:02 p.m.: 24 IR 294*)

### **327 IAC 5-17-14 “Overflow” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 14. “Overflow” means the intentional or unintentional diversion of wastewater flow from a POTW prior to the wastewater entering the POTW treatment plant. (*Water Pollution Control Board; 327 IAC 5-17-14; filed Oct 10, 2000, 3:02 p.m.: 24 IR 295*)

### **327 IAC 5-17-15 “Pass through” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 15. “Pass through” means a discharge proceeding through a POTW into waters of the state in quantities or concentrations that, alone or in conjunction with a discharge or discharges from other sources, are a cause of a violation of any requirement of the POTW’s NPDES permit, including an increase in the magnitude or duration of a violation. (*Water Pollution Control Board; 327 IAC 5-17-15; filed Oct 10, 2000, 3:02 p.m.: 24 IR 295*)

### **327 IAC 5-17-16 “Pollutant removal” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 16. “Pollutant removal” means, with respect to a pollutant in the influent to a POTW, reduction in the amount of the pollutant or alteration in the nature of the pollutant to a less toxic or a more harmless state in the effluent. The reduction or alteration can be obtained by physical, chemical, or biological means and may be the result of specifically designed POTW capabilities or it may be incidental to the operation of the treatment system. Removal shall not mean dilution or volatilization of a pollutant in the POTW or its sewer system. (*Water Pollution Control Board; 327 IAC 5-17-16; filed Oct 10, 2000, 3:02 p.m.: 24 IR 295*)

### **327 IAC 5-17-17 “POTW” or “publicly owned treatment works” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 17. “POTW” or “publicly owned treatment works” means a treatment works as defined by Section 212(2) of the Clean Water Act owned by the state or a municipality (as defined by Section 502(4) of the Clean Water Act), except that it does not include pipes, sewers, or other conveyances not connected to a facility providing treatment. The term includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or compatible industrial wastes. It also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW treatment plant. The term also means the municipality, as defined by Section 502(4) of the Clean Water Act, that has jurisdiction over the indirect discharges to and the discharges from such a treatment works. (*Water Pollution Control Board; 327 IAC 5-17-17; filed Oct 10, 2000, 3:02 p.m.: 24 IR 295*)

### **327 IAC 5-17-18 “Pretreatment” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 18. “Pretreatment” means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to, or in lieu of, discharging or otherwise introducing such pollutants into a POTW. The reduction or alteration can be obtained by physical, chemical, or biological processes, process changes, or by other means, except dilution, as prohibited by 327 IAC 5-18-4(f). (*Water Pollution Control Board; 327 IAC 5-17-18; filed Oct 10, 2000, 3:02 p.m.: 24 IR 296*)

### **327 IAC 5-17-19 “Pretreatment requirements” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 19. “Pretreatment requirements” means any substantive or procedural requirement related to pretreatment, other than a pretreatment standard, imposed on an industrial user. (*Water Pollution Control Board; 327 IAC 5-17-19; filed Oct 10, 2000, 3:02 p.m.: 24 IR 296*)

### **327 IAC 5-17-20 “Pretreatment rules” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 20. "Pretreatment rules" means the rules contained in 327 IAC 5-16, this rule, and 327 IAC 5-18 through 327 IAC 5-21. (*Water Pollution Control Board; 327 IAC 5-17-20; filed Oct 10, 2000, 3:02 p.m.: 24 IR 296*)

**327 IAC 5-17-21 "Pretreatment standards" defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 21. "Pretreatment standards" means:

- (1) state pretreatment standards as established in 327 IAC 5-18-8;
- (2) pretreatment standards for prohibited discharges, as established in 327 IAC 5-18-2; and
- (3) national categorical pretreatment standards incorporated by reference in 327 IAC 5-18-10.

(*Water Pollution Control Board; 327 IAC 5-17-21; filed Oct 10, 2000, 3:02 p.m.: 24 IR 296*)

**327 IAC 5-17-22 "Removal credit" defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 22. "Removal credit" means a revision in a discharge limit from a categorical standard to reflect consistent removal of a pollutant under the pretreatment rules. (*Water Pollution Control Board; 327 IAC 5-17-22; filed Oct 10, 2000, 3:02 p.m.: 24 IR 296*)

**327 IAC 5-17-23 "Significant industrial user" or "SIU" defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 23. (a) Except as provided in subsection (b), "significant industrial user" or "SIU" means the following:

- (1) Industrial users subject to categorical pretreatment standards under 327 IAC 5-18-10.
- (2) An industrial user that:
  - (A) discharges an average of twenty-five thousand (25,000) gallons per day or more of process wastewater (excluding sanitary, noncontact cooling and boiler blowdown wastewater) to the POTW;
  - (B) contributes a process wastestream that makes up five percent (5%) or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or
  - (C) is designated as a significant industrial user by the control authority on the basis that the industrial

user has a reasonable potential to:

- (i) adversely affect the POTW's operation;
- (ii) violate a pretreatment standard; or
- (iii) violate a requirement of 327 IAC 5-19-3.

(b) A control authority may, on its own initiative or in response to a petition received from an industrial user or a POTW and in accordance with 327 IAC 5-19-3(6), determine that an industrial user is not a significant industrial user if it does not meet subsection (a)(2)(C). (*Water Pollution Control Board; 327 IAC 5-17-23; filed Oct 10, 2000, 3:02 p.m.: 24 IR 296*)

**327 IAC 5-17-24 "Significant noncompliance" defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 24. "Significant noncompliance" means the status of an industrial user that has caused or allowed a violation that meets one (1) or more of the following criteria:

- (1) Chronic violations of wastewater discharge limits, defined as those in which sixty-six percent (66%) or more of all of the measurements taken during a six (6) month period exceed, by any magnitude, the daily maximum limit or the average limit for the same pollutant parameter.
- (2) Technical review criteria (TRC) violations, defined as those in which thirty-three percent (33%) or more of all of the measurements for each pollutant parameter taken during a six (6) month period equal or exceed the product of the daily maximum limit or the average limit multiplied by the applicable TRC (TRC equals one and four-tenths (1.4) for biochemical oxygen demand, total suspended solids, fats, oil, and grease and one and two-tenths (1.2) for all other pollutants except pH).
- (3) Any other violation of a pretreatment effluent limit (daily maximum or longer-term average) that the control authority determines has caused, alone or in combination with other discharges, interference or pass through, including endangering the health of POTW personnel or the general public.
- (4) Any discharge of a pollutant that has caused imminent endangerment to human health, welfare, or to the environment or has resulted in the POTW's exercise of its emergency authority under 327 IAC 5-19-3(1)(G) to halt or prevent such a discharge.
- (5) Failure to meet, within ninety (90) days after the schedule date, a compliance schedule milestone contained in a local control mechanism or enforcement order for starting construction, completing construction, or attaining final compliance.

(6) Failure to provide, within thirty (30) days after the due date, required reports such as:

- (A) baseline monitoring reports;
- (B) ninety (90) day compliance reports;
- (C) periodic self-monitoring reports; and
- (D) reports on compliance with compliance schedules.

(7) Failure to accurately report noncompliance.

(8) Any other violation or group of violations that the control authority determines will adversely affect the operation or implementation of the approved POTW pretreatment program.

*(Water Pollution Control Board; 327 IAC 5-17-24; filed Oct 10, 2000, 3:02 p.m.: 24 IR 296)*

### **327 IAC 5-17-25 “Sludge requirements” defined**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 25. “Sludge requirements” means statutory provisions, regulations, or permits issued under the following (or more stringent state or local) regulations:

- (1) Section 405 of the Clean Water Act (33 U.S.C. 1345).
- (2) Solid Waste Disposal Act (SWDA) (42 U.S.C. 6901), including Title II, also known as the Resource Conservation Recovery Act.
- (3) Rules contained in a state sludge management plan prepared pursuant to subtitle D of SWDA (42 U.S.C. 6941).
- (4) Clean Air Act (42 U.S.C. 7401).
- (5) Toxic Substances Control Act (15 U.S.C. 2601).
- (6) Marine Protection, Research and Sanctuaries Act (16 U.S.C. 1431 and 33 U.S.C. 1401).

*(Water Pollution Control Board; 327 IAC 5-17-25; filed Oct 10, 2000, 3:02 p.m.: 24 IR 297)*

### **Rule 18. Applicable Pretreatment Standards and Other Pretreatment Requirements**

327 IAC 5-18-1	Purpose
327 IAC 5-18-2	Pretreatment standards for prohibited discharges
327 IAC 5-18-3	Affirmative defense
327 IAC 5-18-4	National categorical pretreatment standards
327 IAC 5-18-5	Variance from a categorical pretreatment standard for fundamentally different factors
327 IAC 5-18-6	Intake water pollutant credits
327 IAC 5-18-7	Combined wastestreams
327 IAC 5-18-8	State pretreatment standards
327 IAC 5-18-9	Other pretreatment requirements
327 IAC 5-18-10	Categorical pretreatment standards incorporated by reference

### **327 IAC 5-18-1 Purpose**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 1. This rule establishes the pretreatment requirements that apply to discharges of pollutants from industrial users to POTWs, including the following:

- (1) Pretreatment standards for prohibited discharges.
- (2) National pretreatment standards for specific industrial subcategories, established by 40 CFR 403.6.
- (3) State pretreatment standards.
- (4) More stringent limitations where necessary to protect a POTW from interference or to protect applicable water quality standards.

*(Water Pollution Control Board; 327 IAC 5-18-1; filed Oct 10, 2000, 3:02 p.m.: 24 IR 297)*

### **327 IAC 5-18-2 Pretreatment standards for prohibited discharges**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 2. (a) A user of a POTW, whether or not the user is subject to national categorical standards or state, local, or any other national pretreatment standard or requirement, shall not allow the introduction of the following into the POTW:

- (1) A pollutant from any source of nondomestic wastewaters that could pass through or cause interference with the operation or performance of the POTW.
- (2) A pollutant that could create a fire or explosion hazard in the POTW, including waste streams with a closed cup flashpoint of less than one hundred forty (140) degrees Fahrenheit (sixty (60) degrees Celsius) using the test methods in 40 CFR 261.21.
- (3) A pollutant that could cause corrosive structural damage to the POTW, including a discharge with pH lower than five (5.0), unless the POTW is specifically designed to accommodate such a discharge.
- (4) A solid or viscous pollutant in an amount that could cause obstruction to the flow in a sewer or other interference with the operation of the POTW.
- (5) A pollutant, including an oxygen demanding pollutant (such as biochemical oxygen demand) released in a discharge at a flow rate or pollutant concentration that could cause interference in the POTW.
- (6) Heat in an amount that could:
  - (A) inhibit biological activity in the POTW and result in interference or damage to the POTW; or
  - (B) exceed forty (40) degrees Celsius or one hundred four (104) degrees Fahrenheit at the POTW treatment plant unless the commissioner, upon request of

the POTW, approves alternate temperature limits.

(7) Petroleum, oil, nonbiodegradable cutting oil, or products of mineral oil origin in an amount that could cause interference or pass through.

(8) A pollutant that could result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems.

(9) A trucked or hauled pollutant, except:

(A) with the permission of the POTW; and

(B) when introduced to the POTW at a discharge point designated by the POTW.

(b) Specific limits on the prohibited substances listed in subsection (a) must:

(1) be developed and effectively enforced by a POTW required to develop a POTW pretreatment program under 40 CFR 403.8 and 327 IAC 5-19;

(2) continue to be developed, as necessary, and effectively enforced by a POTW with an approved POTW pretreatment program; or

(3) be developed and enforced by a POTW, not included in subdivision (1) or (2), so as to limit:

(A) a pollutant contributed by an industrial user that has caused or is likely to cause interference or pass through at the receiving POTW; and

(B) the recurrence of the contributed pollutant's affect on the POTW.

A POTW affected by this subdivision shall make appropriate changes in the POTW treatment facilities or operation, as necessary, to prevent occurrences of interference or pass through.

Individual notice shall be made in writing to persons or groups who have requested to be notified and given an opportunity to comment about the development and enforcement of specific effluent limits as required by this subsection.

(c) When specific prohibitions or limits on pollutants or pollutant parameters are developed by a POTW in accordance with subsection (b), the prohibitions or limits are pretreatment standards for the purposes of the pretreatment rules and Section 307(d) of the Clean Water Act (33 U.S.C. 1317(d)). (*Water Pollution Control Board; 327 IAC 5-18-2; filed Oct 10, 2000, 3:02 p.m.: 24 IR 297*)

### 327 IAC 5-18-3 Affirmative defense

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 3. An industrial user shall have an affirmative defense in any action brought against the industrial user alleging a violation of the prohibitions established in

section 2 of this rule if the industrial user can demonstrate that:

(1) it did not know or have reason to know that its discharge, alone or in conjunction with a discharge from another source, would cause pass through or interference; and

(2) a local limit designed to prevent pass through or interference in accordance with section 2 of this rule:

(A) was developed for each pollutant in the industrial user's discharge that caused pass through or interference, and the industrial user was in compliance with each such local limit directly prior to and during the pass-through or interference; or

(B) was not developed for the pollutant that caused the pass through or interference, and the industrial user's discharge, directly prior to and during the pass through or interference, had not changed substantially in nature or constituents from its usual discharge condition when the POTW was regularly in compliance with the applicable:

(i) NPDES permit requirements; and

(ii) requirements for sewage sludge use or disposal, in the case of interference.

(*Water Pollution Control Board; 327 IAC 5-18-3; filed Oct 10, 2000, 3:02 p.m.: 24 IR 298*)

### 327 IAC 5-18-4 National categorical pretreatment standards

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 4-22-2; IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 4. (a) General provisions for the categorical pretreatment standards are as follows:

(1) Unless specifically noted otherwise, categorical pretreatment standards are:

(A) enforceable by the commissioner against an industrial user upon the incorporation by reference of such standards in section 10 of this rule in accordance with IC 4-22-2; and

(B) in addition to all applicable pretreatment standards and requirements in the pretreatment rules.

(2) Irrespective of whether a particular categorical pretreatment standard has been incorporated by reference in section 10 of this rule, the commissioner may:

(A) make certifications regarding the applicability of that standard under subsection (b);

(B) deny or recommend to EPA the approval of any request for a fundamentally different factors variance from that standard in accordance with section 5 of this rule; and

(C) recommend to the EPA the approval or disapproval of any application for calculation of that

standard on a net basis in accordance with section 6 of this rule.

(b) The requirements concerning a request for a subcategory determination are as follows:

(1) Within sixty (60) days after the effective date of a categorical pretreatment standard for a subcategory under which an industrial user may be included, the existing industrial user or POTW may request that the regional administrator or the commissioner provide written certification on whether the industrial user falls within that particular subcategory. If an existing industrial user adds or changes a process or operation that may be included in a subcategory, the existing industrial user must request this certification prior to commencing discharge from the added or changed processes or operations. A new source must request this certification prior to commencing discharge. If a request for certification is submitted by a POTW, the POTW shall notify any affected industrial user of such submission. The industrial user may provide written comments to the commissioner within thirty (30) days of receipt of notification from the POTW about the POTW's request for certification.

(2) A request for certification must contain the following:

(A) A description of the subcategories that may be applicable.

(B) A statement citing evidence and reasons why a particular subcategory applies and why others are not applicable. Any person signing the application statement submitted under this section shall make the signed certification, "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(3) A determination will be made on each request for certification in accordance with the procedures specified in 40 CFR 403.6(a)\*.

(c) Compliance with new categorical standards shall be in accordance with the following:

(1) Except where an existing source meets the definition of a new source as defined under 327 IAC 5-17-13, an existing source with categorical pretreatment standards, including an existing source that becomes an industrial user subsequent to promulgation of an

applicable categorical pretreatment standard and is thenceforth considered an existing industrial user shall achieve compliance within three (3) years of the date the new standard is promulgated by EPA, unless a shorter compliance time is specified in the standard.

(2) A new source shall:

(A) install;

(B) have in operating condition; and

(C) start up;

all pollution control equipment required to comply with all pretreatment standards and requirements in this rule before beginning to discharge. Within the shortest feasible time, not to exceed ninety (90) days, a new source must meet all pretreatment standards and requirements in this rule.

(d) Concentration and mass limits are determined by the following:

(1) If the pollutant discharge limit for a categorical pretreatment standard is expressed as a concentration limit, the concentration limit shall apply only to the effluent of the process regulated by the standard or as otherwise specified by the standard. Wherever possible, an equivalent mass limit will be provided as an alternative to the standard and it may be applied by the commissioner or a POTW with an approved POTW pretreatment program.

(2) If a pollutant discharge limit in a categorical pretreatment standard is expressed only as mass of pollutant per unit of production, the control authority may convert the limit to an equivalent limitation expressed either as mass of pollutant discharged per day or effluent concentration for the purpose of calculating the effluent limitation applicable to an individual industrial user.

(3) A control authority calculating an equivalent mass-per-day limitation according to subdivision (2) shall not calculate such limitation by multiplying the limit in the standard by the industrial user's production capacity but rather upon a reasonable measure of the industrial user's actual long term daily production, such as the average daily production during a representative year. For a new source, actual production shall be estimated using projected production.

(4) A control authority calculating an equivalent concentration limitation according to subdivision (2) shall calculate such limitation by dividing the mass limitation derived according to subdivision (3) by the average daily flow rate of the industrial user's regulated process wastewater. This average daily flow rate must be based upon a reasonable measure of the industrial user's actual long term average flow rate, such as the average daily flow rate during a representative year.

(e) The application of a limitation for a categorical pretreatment standard shall be in accordance with the following:

(1) An equivalent limitation calculated in accordance with subsection (d)(3) and (d)(4) shall be deemed pretreatment standards for the purposes of Section 307(d) of the Clean Water Act (33 U.S.C. 1317(d)) and the pretreatment rules. Industrial users are required to comply with an equivalent limitation in lieu of a promulgated categorical standard from which the equivalent limitation was derived.

(2) Many categorical pretreatment standards specify one (1) limit for calculating a maximum daily discharge limitation and a second limit for calculating a maximum monthly average or four (4) day average limitation. If such a standard is being applied, the same production or flow figure shall be used in calculating both types of equivalent limitations.

(3) Any industrial user operating under a control mechanism incorporating an equivalent mass or concentration limit calculated from a production based standard shall notify the control authority within two (2) business days after the industrial user has a reasonable basis to know that the production level will significantly change within the next calendar month. Any user not notifying the control authority of such anticipated change will be required to meet the mass or concentration limit in its control mechanism that was based on the original estimate of the long term average production rate.

(f) Except where expressly authorized to do so by an applicable categorical pretreatment standard, no industrial user shall increase the use of process water or, in any other way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with any pretreatment standard or requirement. An unauthorized attempt by an industrial user to dilute a regulated discharge shall be cause for the control authority to impose the mass limits set forth in the categorical standard.

\*40 CFR 403.6(a) is incorporated by reference. Copies of this publication may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 5-18-4; filed Oct 10, 2000, 3:02 p.m.: 24 IR 298*)

**327 IAC 5-18-5 Variance from a categorical pretreatment standard for fundamentally different factors**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 5. (a) The requirements for requesting a variance from a categorical pretreatment standard for fundamentally different factors are as follows:

(1) Any interested person may request a fundamentally different factors variance under this section for the following reasons:

(A) Factors relating to an industrial user are fundamentally different from the factors considered during development of a categorical pretreatment standard applicable to that industrial user.

(B) The existence of the differing factors justifies a different discharge limit from that specified in the applicable categorical pretreatment standard.

(2) Requests for a variance and supporting evidence must be submitted in writing to the commissioner within one hundred eighty (180) days after the date when a categorical pretreatment standard is published in the Federal Register. If an industrial user has requested a categorical determination under section 4(b) of this rule, the industrial user may defer submission of a variance request under this section until no later than thirty (30) days after a final decision has been made on the categorical determination under 40 CFR 403.6(a)(4).

(3) A written request for a fundamentally different factors variance (FDFV) must include the following:

(A) The name and address of the person making the request.

(B) Identification of the interest of the requester, which is affected by the categorical pretreatment standard, for which the variance is requested.

(C) Identification of the POTW currently receiving the waste from the industrial user for which alternative discharge limits are requested.

(D) Identification of the categorical pretreatment standards that are applicable to the industrial user.

(E) A list of each pollutant or pollutant parameter for which an alternative discharge limit is sought.

(F) The alternative discharge limits proposed by the requester for each pollutant or pollutant parameter identified in clause (E).

(G) A description of the industrial user's existing water pollution control facilities.

(H) A schematic flow representation of the industrial user's water system, including water supply, process wastewater systems, and points of discharge.

(I) A statement of facts clearly establishing why the variance request should be approved, including detailed support data, documentation, and evidence

necessary to fully evaluate the merits of the request.

(b) The commissioner shall act upon a FDFV request according to the following:

(1) A decision on a FDFV request according to subsection (a) shall be made in accordance with the criteria and standards set forth in 40 CFR 403.13\*. A variance shall not be granted if a proposed alternative discharge limit would result in a violation of prohibitive discharge standards in section 2 of this rule.

(2) When the commissioner makes a tentative decision on a FDFV request the commissioner shall provide a public notice of receipt of the request, opportunity to review the submission, and opportunity to comment. The public notice shall meet the following:

(A) Be circulated in a manner designed to inform interested and potentially interested persons of the request. Public notice shall include mailing notices to the following:

(i) The POTW that will receive the discharge from the industrial user requesting the variance.

(ii) Adjoining states whose waters may be affected.

(iii) Planning agencies, federal and state fish agencies, and shellfish and wildlife resource agencies designated in Section 208 of the Clean Water Act (33 U.S.C. 1288).

(iv) Any other person or group that has requested individual notice.

(B) Provide for a comment period of not less than thirty (30) days duration following the date of the public notice during which time interested persons may review the request and submit written comments on the request.

(3) The commissioner shall make a determination on the request for a FDFV taking into consideration any comments received during the comment period. If the commissioner denies the request, the commissioner's decision shall be final and notice thereof shall be provided to the following:

(A) The requester.

(B) The industrial user for which the variance was requested, if different from the requester of clause (A).

(C) The POTW intended to receive the industrial user's discharge that was the subject of the FDFV request.

(D) All persons who submitted comments on the request.

(4) If the commissioner concludes that fundamentally different factors do exist, the commissioner shall forward the request and a recommendation that a variance be approved to the EPA water management division director for a final determination pursuant to 40 CFR 403.13.

(5) The commissioner will act only on variances that

contain all of the information required. The commissioner shall notify a person who has made an incomplete submission that the request is deficient and, unless the time period is extended, the person will be given a maximum of thirty (30) days to correct the deficiency. If the deficiency is not corrected within the time period allowed by the commissioner, the request for variance shall be denied.

\*40 CFR 403.13 is incorporated by reference. Copies of this publication may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 5-18-5; filed Oct 10, 2000, 3:02 p.m.: 24 IR 300*)

### **327 IAC 5-18-6 Intake water pollutant credits**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 6. Categorical pretreatment standards may be adjusted to reflect the presence of pollutants in the industrial user's intake water in accordance with the following provisions:

(1) An industrial user wishing to obtain a credit for intake pollutants must file an application with the control authority. Upon request of the industrial user, the applicable categorical standard shall be calculated on a net basis, meaning that it shall be adjusted to reflect credit for pollutants in the intake water if the requirements of this subdivision and subdivision (2) are met.

(2) To qualify for adjustments to an applicable standard to reflect credit for pollutants in the intake water, the applicant must demonstrate the following:

(A) The control system the industrial user proposes or uses to meet applicable categorical pretreatment standards would, if properly installed and operated, meet the standards in the absence of pollutants in the intake waters.

(B) Credit for generic pollutants, such as:

(i) biochemical oxygen demand;

(ii) total suspended solids; and

(iii) oil and grease;

should not be granted unless the industrial user demonstrates that the constituents of the generic measure in the user's effluent are substantially similar to the constituents of the generic measure in the intake water or unless appropriate additional limits are placed on process water pollutants either

at the outfall or elsewhere.

(C) Credit shall be granted only to the extent necessary to meet the applicable categorical pretreatment standard, up to a maximum value equal to the influent value. Additional monitoring may be necessary to determine eligibility for credits and compliance with standard adjusted under this section.

(D) Credit shall be granted only if the user demonstrates that the intake water is drawn from the same body of water as that into which the POTW discharges. The control authority may waive this requirement if it finds that no environmental degradation will result.

(3) The applicable categorical pretreatment standards contained in 40 CFR, Chapter I, Subchapter N specifically provide that they shall be applied on a net basis.

(4) Adjustments under this section to categorical pretreatment standards otherwise applicable to pollutants in the discharger's effluent shall be calculated as follows:

(A) The amount of pollutants present in the intake water shall be reduced:

- (i) to reflect removal of such pollutants by any treatment of the intake water performed by or for the discharger; and
- (ii) to reflect any further removal of such pollutants by the wastewater treatment technology employed by the discharger.

(B) The amount of such pollutants remaining after the reductions may be applied as an adjustment to the categorical standards otherwise applicable to such pollutants.

*(Water Pollution Control Board; 327 IAC 5-18-6; filed Oct 10, 2000, 3:02 p.m.: 24 IR 301)*

### 327 IAC 5-18-7 Combined wastestreams

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 7. The combined wastestream formula is derived as follows:

(1) Where process effluent is mixed prior to treatment with wastewaters other than those generated by the regulated process, alternative discharge limits may be derived by the control authority or by the industrial user with the written concurrence of the control authority and applied to the mixed effluent. When deriving alternative categorical limits, the control authority or industrial user shall calculate both an alternative daily maximum value using the daily maximum value specified in the appropriate categorical pretreatment standard and an alternative consecu-

tive sampling day average value using the long term average value specified in the appropriate categorical pretreatment standard. The industrial user shall comply with the alternative daily maximum and long term average limits fixed by the control authority until the control authority modifies the limits or approves an industrial user modification request. Modification is authorized whenever there is a material or significant change in the values used in the calculation to fix alternative limits for the regulated pollutant. An industrial user must immediately report any such material or significant change to the control authority. Where appropriate, new alternative categorical limits shall be calculated within thirty (30) days.

(2) As used in this section, "average daily flow" means a reasonable measure of the average daily flow for a thirty (30) day period. For new sources, flows shall be estimated using projected values. The alternative discharge limit for a specific pollutant shall be calculated by either of the following formulas:

(A) Alternative concentration limits:

$$C_T = \frac{\sum_{i=1}^N C_i F_i}{\sum_{i=1}^N F_i} \cdot \left[ \frac{F_T - F_D}{F_T} \right]$$

Where:  $C_T$  = The alternative concentration limit for the combined wastestreams.

$C_i$  = The categorical pretreatment standard concentration limit for a pollutant in the regulated stream  $i$ .

$F_i$  = The average daily flow (at least a thirty (30) day average) of stream  $i$  to the extent that it is regulated for such pollutant.

$F_D$  = The average daily flow (at least a thirty (30) day average) from any of the following:

- (i) Boiler blowdown streams, noncontact cooling streams, storm water streams, and demineralizer backwash streams; provided, however, that where such streams contain a significant amount of a pollutant, and the combination of such streams, prior to treatment, with an industrial user's regulated process wastestream will result in a substantial reduction of that pollutant, the control authority, upon application of the industrial user, may exercise its discretion to determine whether such stream should be classified as diluted or unregulated. In its application to the control authority, the industrial user must provide engineering, production, sampling and analysis, and such other infor-

mation so that the control authority can make its determination.

(ii) Sanitary wastestreams where such streams are not regulated by a categorical pretreatment standard.

(iii) Any process wastestreams that were or could have been entirely exempted from categorical pretreatment standards pursuant to paragraph 8 of the NRDC v. Costle Consent Decree (12 ERC 1833) for one (1) or more of the following reasons:

(AA) The pollutants of concern are not detectable in the effluent from the industrial user.

(BB) The pollutants of concern are present only in trace amounts and are neither causing or likely to cause toxic effects.

(CC) The pollutants of concern are present in amounts too small to be effectively reduced by technologies known to the administrator.

(DD) The wastestream contains only pollutants that are compatible with the POTW.

$F_T$  = The average daily flow (at least a thirty (30) day average) through the combined treatment facility (includes  $F_i$ ,  $F_D$ , and unregulated streams).

$N$  = The total number of regulated streams.

(B) Alternative mass limits:

$$M_T = \left[ \sum_{i=1}^N M_i \right] \cdot \left[ \frac{F_T - F_D}{\sum_{i=1}^N F_i} \right]$$

Where:  $M_T$  = The alternative mass limit for a pollutant in the combined wastestream.

$M_i$  = The categorical pretreatment standard mass limit for a pollutant in the regulated stream  $i$  (the categorical pretreatment mass limit multiplied by the appropriate measure of production).

$F_i$ ,  $F_D$ ,  $F_T$ , and  $N$  are defined in clause (A).

(3) An alternative pretreatment limit may not be used if the alternative limit is below the analytical detection limit for any of the regulated pollutants.

(4) Self-monitoring required to assure compliance with the alternative categorical limit shall be as follows:

(A) The type and frequency of sampling, analysis, and flow measurement must be determined by reference to the self-monitoring requirements of the appropriate categorical pretreatment standard or 40 CFR 403.12(e) and 40 CFR 403.12(h).

(B) Where the self-monitoring schedules as determined by the control authority for the appropriate standards differ, monitoring must be done according to the most frequent schedule.

(C) Where flow determines the frequency of self-monitoring in a categorical pretreatment standard, the sum of all regulated flows ( $F_i$ ) is the flow that shall be used by the control authority to determine self-monitoring frequency.

(Water Pollution Control Board; 327 IAC 5-18-7; filed Oct 10, 2000, 3:02 p.m.: 24 IR 301)

### 327 IAC 5-18-8 State pretreatment standards

Authority: IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-14-8-7; IC 13-18-4

Sec. 8. (a) An industrial user shall comply with applicable pretreatment standards and requirements adopted by the board under IC 13-14-8-7(a)(8). If state pretreatment standards and national pretreatment standards are applicable to an industrial user, the industrial user shall comply with the more stringent standards.

(b) Compliance with a state pretreatment standard that does not expressly state a final date for compliance must be attained no later than three (3) years from the effective date of the standard. (Water Pollution Control Board; 327 IAC 5-18-8; filed Oct 10, 2000, 3:02 p.m.: 24 IR 303)

### 327 IAC 5-18-9 Other pretreatment requirements

Authority: IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 9. In addition to applicable pretreatment standards, an industrial user shall comply with the following:

(1) An effluent limitation more stringent than the applicable pretreatment standard that is necessary to prevent:

(A) interference in the POTW receiving the discharge; or

(B) violation of a provision of section 2(a) of this rule or a state or federal water quality standard that is applicable to the state waters ultimately receiving the discharge from the industrial user after discharge from the POTW.

(2) Any requirement by the commissioner to implement appropriate best management practices (BMPs) and to develop a BMP plan in accordance with 327 IAC 5-9 if the industrial user uses, manufactures, stores, handles, or discharges any pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act (33 U.S.C. 1317(a)(1)) or any pollutant listed as hazardous under Section 311 of the Clean Water Act (33 U.S.C. 1321) that may cause or allow significant amounts of that pollutant to reach waters of the state, whether directly or after discharge from the POTW,

from certain ancillary manufacturing operations, including:

- (A) materials storage areas;
- (B) in-plant transfer;
- (C) process and materials handling areas;
- (D) loading and unloading operations;
- (E) plant site run-off; and
- (F) sludge and waste disposal areas.

(*Water Pollution Control Board; 327 IAC 5-18-9; filed Oct 10, 2000, 3:02 p.m.: 24 IR 303*)

**327 IAC 5-18-10 Categorical pretreatment standards incorporated by reference**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 10. The following federal categorical pretreatment standards are incorporated by reference:

Category	Code of Federal Regulations or Federal Register Citation
Dairy products	40 CFR 405*
Grain mills	40 CFR 406*
Canned and preserved fruits and vegetables	40 CFR 407*
Sugar processing	40 CFR 409*
Textile mills	40 CFR 410*
Cement manufacturing	40 CFR 411*
Feedlots	40 CFR 412*
Electroplating	40 CFR 413*
Organic chemicals, plastics, and synthetic fibers	40 CFR 414*
Inorganic chemicals manufacturing	40 CFR 415*
Soap and detergent manufacturing	40 CFR 417*
Fertilizer manufacturing	40 CFR 418*
Petroleum refining	40 CFR 419*
Iron and steel manufacturing	40 CFR 420*
Nonferrous metals manufacturing	40 CFR 421*
Steam electric power	40 CFR 423*
Ferrous alloy manufacturing	40 CFR 424*
Leather tanning and finishing	40 CFR 425*
Glass manufacturing	40 CFR 426*
Asbestos manufacturing	40 CFR 427*
Rubber manufacturing	40 CFR 428*
Timber products processing	40 CFR 429*
Pulp, paper, and paperboard	40 CFR 430*
Builder's paper and board mills	40 CFR 431*
Metal finishing	40 CFR 433*
Pharmaceutical manufacturing	40 CFR 439*

Paving and roofing	40 CFR 443*
Paint formulating	40 CFR 446*
Ink formulating	40 CFR 447*
Pesticide chemicals manufacturing, formulating, and packaging	40 CFR 455*
Carbon black manufacturing	40 CFR 458*
Battery manufacturing	40 CFR 461*
Plastics molding and forming	40 CFR 463*
Metal molding and casting	40 CFR 464*
Coil coating	40 CFR 465*
Porcelain enameling	40 CFR 466*
Aluminum forming	40 CFR 467*
Copper forming	40 CFR 468*
Electrical and electronic components	40 CFR 469*
Nonferrous metals forming and metal powders	40 CFR 471*

\*These federal categorical pretreatment standards are incorporated by reference. Copies of these publications may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 5-18-10; filed Oct 10, 2000, 3:02 p.m.: 24 IR 303*)

**Rule 19. POTW Pretreatment Programs**

327 IAC 5-19-1	POTWs required to have a pretreatment program
327 IAC 5-19-2	Development of a POTW pretreatment program
327 IAC 5-19-3	POTW pretreatment program requirements
327 IAC 5-19-4	Requests for approval of POTW pretreatment programs
327 IAC 5-19-5	Approval procedures for POTW pretreatment programs or requests for authority to revise categorical pretreatment standards due to POTW consistent removal
327 IAC 5-19-6	Revision of an existing approved POTW pretreatment program
327 IAC 5-19-7	POTWs not required to have an approved POTW pretreatment program

**327 IAC 5-19-1 POTWs required to have a pretreatment program**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 1. (a) A POTW, or a combination of POTWs operated by the same authority, that meets at least one (1) of the following conditions must establish a POTW pretreatment program:

- (1) Has a total design flow greater than five (5) million

gallons per day (mgd) and receives pollutants, from one (1) or more industrial users, that may pass through or interfere with the operation of the POTW.

(2) Receives flow subject to pretreatment standards or requirements under 327 IAC 5-18.

(b) A POTW with a design flow of five (5) mgd or less may also be required to develop a POTW pretreatment program if the commissioner determines that a pretreatment program to prevent interference or pass through at the POTW is warranted due to the nature or volume of one (1) or more of the following:

- (1) Industrial influent.
- (2) Treatment process upset.
- (3) Violations of POTW effluent limitations.
- (4) Contamination of municipal sludge.
- (5) Other circumstances.

(c) A POTW desiring to modify categorical pretreatment standards under 327 IAC 5-20 must have an approved POTW pretreatment program. (*Water Pollution Control Board; 327 IAC 5-19-1; filed Oct 10, 2000, 3:02 p.m.: 24 IR 304*)

### **327 IAC 5-19-2 Development of a POTW pretreatment program**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 2. (a) The purpose of a POTW pretreatment program is to provide the POTW with the administrative and technical capability to ensure that industrial users of the POTW comply with applicable pretreatment standards and requirements specified in 327 IAC 5-18.

(b) For a POTW required to develop a POTW pretreatment program under section 1 of this rule, a compliance schedule specifying the program development will be incorporated into the POTW's NPDES permit. The compliance schedule shall not extend more than twelve (12) months after notification of the requirement to the POTW.

(c) In addition to any other provisions of this article, any of the following circumstances shall be considered adequate cause to modify or revoke and reissue a POTW's NPDES permit to incorporate a compliance schedule for development of a POTW pretreatment program as described in subsection (b):

- (1) The addition of pollutants into a POTW by an industrial user or combination of industrial users presents a substantial hazard to the functioning of the treatment works, quality of the receiving waters, human health, or the environment.
- (2) The permit must be reissued or modified to coordinate the issuance of a construction grant under Section

201 of the Clean Water Act (33 U.S.C. 1281) with the incorporation into the NPDES permit of a compliance schedule for a POTW pretreatment program.

(3) A modification of the NPDES permit is approved under Section 301(i)(1) of the Clean Water Act (33 U.S.C. 1311(i)(1)).

(d) Upon the approval by the commissioner of a POTW pretreatment program, the NPDES permit of the POTW must be modified or revoked and reissued to incorporate conditions of the approved POTW pretreatment program, including a requirement that the POTW implement and enforce the approved POTW pretreatment program with respect to the industrial users of the POTW. (*Water Pollution Control Board; 327 IAC 5-19-2; filed Oct 10, 2000, 3:02 p.m.: 24 IR 304*)

### **327 IAC 5-19-3 POTW pretreatment program requirements**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 3. An approved POTW pretreatment program shall fully and effectively exercise and implement the following requirements:

(1) The POTW must operate under legal authority, enforceable in federal or state court, that authorizes or enables the POTW to apply and enforce the requirements of Section 307(b) and 307(c) of the Clean Water Act (33 U.S.C. 1317(b) and 33 U.S.C. 1317(c)), including national pretreatment standards as well as applicable state pretreatment standards and requirements described in 327 IAC 5-18. Such authority may be contained in an ordinance, series of contracts, or joint power agreements, that the POTW is authorized to enact, enter into, or implement, and that are authorized by state law. At a minimum, this legal authority must enable the POTW to do the following:

(A) Deny or condition new or increased contributions of pollutants, or changes in the nature of pollutants, to the POTW by industrial users where such contributions do not meet applicable pretreatment standards and requirements.

(B) Require compliance with all applicable pretreatment standards and requirements by industrial users.

(C) Control, through permit, order, or similar means, the contribution of each industrial user to the POTW to ensure compliance with all applicable pretreatment standards and requirements. In the case of significant industrial users, this control must be achieved through permits or equivalent individual control mechanisms issued to each user.

(D) Control mechanisms described in clause (C)

must be enforceable and contain, at a minimum, the following:

- (i) Statement of duration, that may not be more than five (5) years.
  - (ii) Statement of nontransferability that requires, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator.
  - (iii) Effluent limits based on applicable general pretreatment standards in 327 IAC 5-18, categorical pretreatment standards, local limits, and state and local law.
  - (iv) Self-monitoring, sampling, reporting, notification, and record keeping requirements, including an identification of the pollutants to be monitored, sampling location, sampling frequency, and sample type, based on the applicable general pretreatment standards in 327 IAC 5-18, categorical pretreatment standards, local limits, and state and local law.
  - (v) Statement of applicable, potential civil and criminal penalties for violation of pretreatment standards and requirements and any applicable compliance schedule. Such schedules may not extend the compliance date beyond applicable federal deadlines.
- (E) Carry out all inspection, surveillance, and monitoring procedures necessary to determine, independent of information supplied by industrial users, compliance or noncompliance with applicable pretreatment standards and requirements by industrial users. Representatives of the POTW shall be authorized to enter any premises of any industrial user that is the location of an effluent source or treatment system that is subject to this article or to records which are required to be kept under 40 CFR 403.12(o). Such authority shall be at least as extensive as the authority provided under Section 308 of the Clean Water Act (33 U.S.C. 1318).
- (F) Secure remedies for noncompliance through the following means:
- (i) Obtain remedies for noncompliance by an industrial user with any applicable pretreatment standard or requirement, including injunctive relief and civil penalties as appropriate. The POTW must also have authority to seek or assess civil or criminal penalties in an amount of not less than one thousand dollars (\$1,000) per day for each violation by industrial users of pretreatment standards and requirements.
  - (ii) Pretreatment requirements, in addition to those specified in 327 IAC 5-18, that shall be enforceable through the remedies described in item (i),

shall include:

- (AA) the duty to allow or carry out inspections, entry, or monitoring activities;
- (BB) any ordinances, rules, or orders issued by the POTW;
- (CC) any requirements set forth in individual control mechanisms issued by the POTW or the pretreatment rules; and
- (DD) any reporting requirements imposed by the POTW or the pretreatment rules.

The commissioner shall have authority to seek judicial relief and may also use administrative penalty authority when the POTW has sought a monetary penalty that the commissioner believes to be insufficient.

(G) Have the authority and procedures to:

- (i) give informal notice to the discharger and then immediately and effectively halt or prevent any discharge of pollutants to the POTW that may reasonably appear to present an imminent endangerment to the health or welfare of any person; and
  - (ii) give notice to the affected industrial users, with an opportunity to respond, and then halt or prevent any discharge to the POTW that threatens to interfere with the operation of the POTW or that may present an endangerment to the environment.
- (H) Comply with the confidentiality requirements set forth in 40 CFR 403.14.

(2) The POTW shall have procedures to ensure compliance with the requirements of an approved POTW pretreatment program. At a minimum, these procedures must enable the POTW to do the following:

- (A) Identify and locate all possible industrial users that may be subject to the approved POTW pretreatment program. Any compilation, index, or inventory of industrial users made under this rule must be made available to the commissioner upon request.
- (B) Identify the character and volume of pollutants contributed to the POTW by the industrial users identified under clause (A). This information must be made available to the commissioner upon request.
- (C) Notify industrial users identified under clause (A) of applicable pretreatment standards and any applicable requirements under Sections 204(b) and 405 of the Clean Water Act (33 U.S.C. 1284(b) and 33 U.S.C. 1345) and Subtitles C and D of RCRA (42 U.S.C. 6921 and 42 U.S.C. 6941).
- (D) Notify each significant industrial user (SIU) of its status as an SIU and of the requirements that apply as such within thirty (30) days after the commissioner approves the list of SIUs as required by subdivision (6).
- (E) Institute control measures to ensure compliance

with all applicable pretreatment standards and requirements. Control measures include permits or administrative orders for the discharge of pollutants into a POTW by industrial users.

(F) Receive and analyze self-monitoring reports and other notices submitted by industrial users in accordance with self-monitoring requirements in 327 IAC 5-16-5.

(G) Randomly sample and analyze the effluent from industrial users and conduct surveillance and inspection activities in order to identify, independent of information supplied by industrial users, occasional and continuing noncompliance with pretreatment standards and requirements.

(H) Inspect and sample significant industrial users at least once a year.

(I) Evaluate and document, at least once every two (2) years, whether each significant industrial user needs a plan to control slug discharges. As used in this clause, "slug discharge" means any discharge of a nonroutine, episodic nature, including, at a minimum, an accidental spill or noncustomary batch discharge. The results of these activities shall be made available to the regional administrator or commissioner upon request; if the POTW decides that a slug control plan is needed, the plan shall contain, at a minimum, the following:

(i) A description of discharge practices, including nonroutine batch discharges.

(ii) A description of stored chemicals.

(iii) Procedures for immediately notifying the POTW of slug discharges, including any discharge that would violate a prohibition under 327 IAC 5-18, with procedures for follow-up written notification within five (5) days.

(iv) If necessary, procedures to prevent adverse impact from accidental spills, including, but not limited to, the following:

(AA) Inspection and maintenance of storage areas.

(BB) Handling and transfer of materials.

(CC) Loading and unloading operations.

(DD) Control of plant site run-off.

(EE) Worker training.

(FF) Building of containment structures or equipment.

(GG) Measures for containing toxic organic pollutants including solvents.

(HH) Measures and equipment necessary for response.

(J) Investigate instances of noncompliance with pretreatment standards and requirements as indicated:

(i) in the reports and notices required under 327 IAC 5-16-5; or

(ii) by analysis, inspection, and surveillance activities described in clause (F).

Sample taking and analysis and the collection of other information shall be performed with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions.

(K) Initiate and effectively prosecute enforcement actions, where appropriate, against industrial users that are violating applicable pretreatment standards or other pretreatment requirements.

(L) Comply with the public participation requirements of 40 CFR 25 in the enforcement of national pretreatment standards. These procedures shall include provision for at least annually providing public notification, in the largest daily newspaper published in the municipality in which the POTW is located, of industrial users that, at any time during the previous twelve (12) months, were in significant noncompliance with applicable pretreatment standards or other pretreatment requirements.

(3) The POTW must have sufficient resources and qualified personnel to carry out the approved POTW pretreatment program as described in subdivisions (1) and (2). However, conditional approval of the POTW's pretreatment program may be requested under section 4(b) of this rule pending acquisition of the required funding.

(4) The POTW must develop local limits as required in 327 IAC 5-18-2(b) or demonstrate that they are not necessary.

(5) The POTW must develop and implement an enforcement response plan. This plan must contain detailed procedures demonstrating how a POTW will investigate and respond to instances of industrial user noncompliance. The plan must, at a minimum:

(A) describe how the POTW will investigate instances of noncompliance;

(B) describe the types of escalating enforcement responses the POTW will take in response to all anticipated types of industrial user violations and the time periods within which responses will take place;

(C) identify, by title, the official responsible for each type of response; and

(D) adequately reflect the POTW's primary responsibility to enforce all applicable pretreatment standards and requirements as detailed in subdivisions (1) and (2).

(6) The POTW shall prepare a list of its industrial users meeting the criteria in 327 IAC 5-17-22. The list must identify the criteria in 327 IAC 5-17-22(a) applicable to each industrial user and, for industrial

users meeting the criteria in 327 IAC 5-17-22(a)(2), must also indicate whether the POTW has made a determination under 327 IAC 5-17-22(b) that the industrial user should not be considered a significant industrial user. This list, and any subsequent modifications thereto, must be submitted to the commissioner as a nonsubstantial modification of the approved POTW pretreatment program under 40 CFR 403.18(d). (*Water Pollution Control Board; 327 IAC 5-19-3; filed Oct 10, 2000, 3:02 p.m.: 24 IR 305*)

### **327 IAC 5-19-4 Requests for approval of POTW pretreatment programs**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 4. (a) A POTW requesting approval of a POTW pretreatment program shall develop and submit to the commissioner three (3) copies of the POTW pretreatment program description, including the following:

(1) A statement from the municipal attorney or the attorney for those POTW's that have independent legal counsel providing the following:

(A) Proof that the POTW has authority adequate to carry out the approved POTW pretreatment program described in section 3 of this rule, including identification of the legal authority that provides the basis for each procedure specified in subdivision (2).

(B) A copy of any ordinances, regulations, agreements, or other authorities relied upon by the POTW for its administration of the approved POTW pretreatment program.

(2) A description of the manner in which the POTW will implement the approved POTW pretreatment program requirements, including:

(A) whether pretreatment standards will be applied to individual industrial users by order or permit; and  
(B) how the POTW intends to ensure compliance with pretreatment standards and requirements, for example, an industrial monitoring plan to:

(i) enable the POTW to monitor discharges from its industrial users, including necessary monitoring and analytical equipment; and

(ii) enforce them in the event of noncompliance by industrial users.

This submission must include a statement reflecting the endorsement or approval of the local boards or bodies responsible for supervising and funding the POTW pretreatment program if the POTW pretreatment program is approved.

(3) A brief description, including organizational charts, of the POTW organization that will administer the

approved POTW pretreatment program. If more than one (1) agency is responsible for the administration of the approved POTW pretreatment program, this description must include:

(A) identification of the responsible agencies;

(B) delineation of the responsibilities for each agency; and

(C) the procedures for coordination among the agencies.

(4) The information specified in section 3(2)(A) and 3(2)(B) of this rule concerning:

(A) the identity of industrial users subject to the approved POTW pretreatment program; and

(B) the identity and quantity of pollutants discharged to the POTW by each identified industrial user.

This information shall also be made available to the regional administrator upon request.

(5) A description of the funding levels and the full-time and part-time manpower available to implement the approved POTW pretreatment program.

(b) A POTW may request conditional approval of a POTW pretreatment program pending the acquisition of funding and personnel for certain elements of the program. The request for conditional approval must meet the requirements set forth in subsection (a), except that the submission must demonstrate the following:

(1) A limited aspect of the POTW pretreatment program does not need to be implemented immediately.

(2) The POTW has adequate legal authority and procedures to carry out those aspects of the POTW pretreatment program that will not be implemented immediately.

(3) Funding and personnel for the POTW pretreatment program aspects to be implemented at a later date will be available when needed. The POTW must describe the mechanism by which this funding will be acquired.

Upon receipt of a request for conditional approval, the commissioner shall establish a fixed date for the acquisition of the needed funding and personnel. If funding is not acquired by this date, the conditional approval of the POTW pretreatment program, and any removal allowances granted to the POTW, may be modified or withdrawn.

(c) The requirements for consistency with water quality management plans shall be as follows:

(1) In order to be approved, a POTW pretreatment program shall be consistent with any approved water quality management plan developed in accordance with 40 CFR 130 and 40 CFR 131, where the water quality management plan, pursuant to Section 208 of the Clean Water Act (33 U.S.C. 1288), includes management agency designations and addresses pretreatment in a manner consistent with 40 CFR 403. In order to assure

such consistency, the commissioner, upon receipt of a request for approval of a POTW pretreatment program, shall solicit the review and comment of the appropriate planning agency prior to approval or disapproval of the POTW pretreatment program.

(2) Where no Section 208 plan has been approved or where a plan has been approved but lacks management agency designations or does not address pretreatment in a manner consistent with 40 CFR 403, the commissioner shall nevertheless solicit the review and comment of the appropriate planning agency.

*(Water Pollution Control Board; 327 IAC 5-19-4; filed Oct 10, 2000, 3:02 p.m.: 24 IR 307)*

**327 IAC 5-19-5 Approval procedures for POTW pretreatment programs or requests for authority to revise categorical pretreatment standards due to POTW consistent removal**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 5. (a) The commissioner shall review each submission for a POTW pretreatment program approval or request to revise a categorical pretreatment standard to preliminarily determine whether the submission complies with the requirements of section 3, 4(a), or 4(b) of this rule or this section. After preliminary review, the commissioner shall act according to the following:

(1) If the submission meets the applicable requirements, the commissioner shall notify the POTW and commence permit procedures set forth in 327 IAC 5-3.

(2) If the submission does not comply with applicable requirements, the commissioner shall provide written notice to the POTW and to each person who has requested individual notice. This notification shall identify any defects in the submission and advise the POTW how it can comply with the applicable requirements.

(b) A POTW with an approved POTW pretreatment program shall promptly inform the commissioner of any change in legal authority, staffing, or funding that may significantly affect the ability of the POTW to operate its approved POTW pretreatment program. Whenever this information is submitted and whenever the POTW's NPDES permit is under consideration for reissuance, the commissioner shall review the POTW's ongoing capability to operate its approved POTW pretreatment program. If the commissioner determines that the POTW no longer possesses the capability to adequately run its approved POTW pretreatment program, the commissioner shall promptly notify the POTW of the deficiencies identified.

*(Water Pollution Control Board; 327 IAC 5-19-5; filed Oct 10, 2000, 3:02 p.m.: 24 IR 308)*

**327 IAC 5-19-6 Revision of an existing approved POTW pretreatment program**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 6. The criteria and procedures in 40 CFR 403.18\* shall govern the revisions to an existing approved POTW pretreatment program.

\*40 CFR 403.18 is incorporated by reference. Copies of this publication may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. *(Water Pollution Control Board; 327 IAC 5-19-6; filed Oct 10, 2000, 3:02 p.m.: 24 IR 308)*

**327 IAC 5-19-7 POTWs not required to have an approved POTW pretreatment program**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 7. A POTW not required to develop an approved POTW pretreatment program shall be required to meet the following:

(1) Comply with a decision of the commissioner who has the responsibility of implementing a POTW pretreatment program that will achieve the objectives stated in 327 IAC 5-16-1(b) if the commissioner determines that a need exists for such a POTW pretreatment program. Generally, such a state pretreatment program will be implemented at the local POTW through the use of procedures comparable to those described under section 3(2) of this rule and, ultimately, the issuance of appropriate industrial wastewater pretreatment permits under 327 IAC 5-21.

(2) Develop, adopt, and enforce a sewer use ordinance that implements the standards for prohibited discharges in accordance with 327 IAC 5-18-2.

(3) Comply with any requirements of the commissioner specified in the POTW's NPDES permit to perform certain elements of an approved POTW pretreatment program, such as monitoring for industrial pollutants in the discharges from the POTW's industrial users.

*(Water Pollution Control Board; 327 IAC 5-19-7; filed Oct 10, 2000, 3:02 p.m.: 24 IR 308)*

**Rule 20. Removal Credits**

- 327 IAC 5-20-1 Prerequisites for revision of categorical pretreatment standards by a POTW
- 327 IAC 5-20-2 Application for authorization to revise categorical standards
- 327 IAC 5-20-3 Conditional and provisional authorization to revise categorical standards
- 327 IAC 5-20-4 Continuation or withdrawal of authorization to revise categorical standards

**327 IAC 5-20-1 Prerequisites for revision of categorical pretreatment standards by a POTW**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 1. (a) Any POTW receiving wastewater from an industrial user that is required to meet a categorical pretreatment standard may revise the discharge limits specified by the standard for any specific pollutant or pollutants so long as the POTW has:

- (1) applied for and received authorization from the commissioner to revise the discharge limits for a specific pollutant in accordance with this rule and 327 IAC 5-19-5; and
- (2) a POTW pretreatment program approved under 327 IAC 5-19.

(b) The revised discharge limit for a specific pollutant must be:

- (1) based upon the POTW's capability to consistently remove that pollutant, as demonstrated in accordance with section 2(b) of this rule; and
- (2) calculated as provided in section 2(b)(4) of this rule.

A discharge limit revision for a toxic pollutant, that is listed pursuant to Section 307(a) of the Clean Water Act (33 U.S.C. 1317(a)), must be based on the POTW's ability to remove that toxic pollutant and not the ability to remove indicator or surrogate pollutants.

(c) A POTW with a combined sewer overflow or systems that overflow untreated wastewater into a receiving water at least once annually shall not be able to claim consistent removal of a pollutant unless achieving compliance with one (1) of the following:

- (1) The industrial user provides containment, reduction, or otherwise ceases all discharges from the regulated processes of a pollutant for which a removal allowance is requested during all circumstances in which an overflow event can reasonably be expected to occur. Discharges must cease or be reduced or pretreatment must be increased to the extent necessary to compensate for the removal not being provided by the POTW. Allowances under this rule will not be granted

unless the POTW submits to the commissioner evidence of the following:

(A) All industrial users to which the POTW proposes to apply this rule have demonstrated the ability to contain, reduce, or otherwise cease, during circumstances in which an overflow event can reasonably be expected to occur, all discharges from the regulated processes that contain pollutants for which a removal allowance is requested.

(B) The POTW has identified circumstances in which an overflow event can reasonably be expected to occur and has a notification procedure or other viable plan to ensure that industrial users will learn of an impending bypass in sufficient time to contain, reduce, or cease its discharge to prevent untreated overflow from occurring. The POTW must also demonstrate that it will monitor and verify the data required in clause (C) to ensure that industrial users are containing, reducing, or ceasing operations during POTW overflows.

(C) All industrial users to which the POTW proposes to apply this rule have demonstrated the ability and commitment to collect and make available upon request by the POTW, commissioner, or EPA regional administrator daily flow reports or other data sufficient to demonstrate that all discharges from regulated processes containing the pollutant for which the removal allowance is requested were contained, reduced, or otherwise terminated during all circumstances in which an overflow event was reasonably expected to occur.

(2) The proposed revised discharge limit for a specific pollutant is calculated under section 2(b)(4)(B) of this rule to account for the reduction in POTW removal due to overflows, except as follows:

(A) If an industrial user can demonstrate that overflows do not occur in the POTW's system between the industrial user's discharge and the treatment plant, the POTW may calculate revised discharge limits for the industrial user under section 2(b)(4)(A) of this rule.

(B) After April 19, 1994, consistent removal may be claimed only if efforts to correct the conditions resulting in untreated discharges by a POTW are underway in accordance with the policy and procedures set forth in the EPA Combined Sewer Overflow (CSO) Control Policy (FRL-4732-7)\*, published in the Federal Register on April 19, 1994. Revision to discharge limits in categorical pretreatment standards may not be made if a POTW has not committed to efforts to minimize pollution from combined sewer overflows. At a minimum, a POTW must have completed an analysis of combined sewer

overflow alternatives in accordance with the requirements of the CSO Control Policy and be making a good faith effort to implement the plan.

(d) A discharge limit revision shall not cause or contribute to a violation of the following:

- (1) Applicable water quality standards in the state waters receiving the POTW's effluent.
- (2) The POTW's ability to comply with its NPDES permit limitations and conditions.
- (3) Any sludge requirements that apply to the sludge management method chosen by the POTW.

Alternatively, the POTW can demonstrate to the commissioner that even though it is not presently in compliance with applicable sludge requirements, it will be in compliance when the industrial user to whom the removal credit would apply is required to meet its categorical pretreatment standard as modified by the removal credit. If granting removal credits forces a POTW to incur greater sludge management costs than would be incurred in the absence of granting removal costs, the additional sludge management costs will not be eligible for EPA grant assistance.

(e) If a POTW has received a construction grant under Section 201(g) of the Clean Water Act (33 U.S.C. 1281(g)) from funds authorized for any fiscal year beginning after September 30, 1978, the POTW shall have completed the analysis required by Section 201(g)(5) of the Clean Water Act (33 U.S.C. 1281(g)(5))\*\* and demonstrated that the revised discharge limits will not preclude the use of innovative or alternative technology otherwise available to the POTW.

(f) An industrial user that wishes to receive a removal allowance shall:

- (1) submit to the POTW the information required in 40 CFR 403.12(b)\*\*\*, including the specification of what additional treatment or process facilities, if any, will be needed to comply with applicable categorical pretreatment standards as approved for revision under this rule;
- (2) enter into a compliance schedule agreement with the POTW to install the needed facilities within the time period provided by the applicable categorical standards; and
- (3) have the POTW submit to the commissioner, within sixty (60) days of the effective date of revision of discharge limits for a particular industrial user, the name and address of the industrial user and the specific discharge limits that were revised.

\*The Combined Sewer Overflow (CSO) Control Policy (FRL-4732-7) is incorporated by reference. Copies of this publication may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of

Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

\*\*Section 201(g)(5) of the Clean Water Act (33 U.S.C. 1281(g)(5)) is incorporated by reference. Copies of this publication may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

\*\*\*40 CFR 403.12(b) is incorporated by reference. Copies of this publication may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 5-20-1; filed Oct 10, 2000, 3:02 p.m.: 24 IR 309*)

### **327 IAC 5-20-2 Application for authorization to revise categorical standards**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 2. (a) An application to revise discharge limits for specific pollutants for an industrial user that is, or in the future may be, subject to categorical pretreatment standards must be submitted to the commissioner by a POTW pursuant to this section. The initial application must be submitted after or concurrently with the POTW's request for approval of its POTW pretreatment program. Subsequent applications, if needed, may be submitted by a POTW no more than once every six (6) months upon the occurrence of one (1) or more of the following:

- (1) Promulgation of a categorical pretreatment standard since the previous application.
- (2) An industrial user with new or modified facilities or production changes results in the discharge of a pollutant to the POTW that was not previously discharged and is subject to a categorical standard.
- (3) Any significant increase in removal efficiency attributable to specific identifiable circumstances or corrective measures, such as:
  - (A) improvements in operation and maintenance practices;
  - (B) new treatment or treatment capacity; or
  - (C) a significant change in the influent to the POTW treatment plant.

(b) An application for authorization to revise discharge limits must include the following information:

(1) A list of pollutants proposed for discharge limit revisions.

(2) Influent and effluent operational data demonstrating consistent removal or other information, as permitted by the commissioner, that demonstrates consistent removal of the pollutants for which a removal allowance is proposed. These data must meet the following requirements:

(A) The data must be representative of yearly and seasonal conditions to which the POTW is subjected for each pollutant proposed for a discharge limit revision.

(B) The data must be representative of the quality and quantity of normal effluent and influent flow of the system if such data can be obtained. If such data are unobtainable, alternate data or information may be presented for approval to demonstrate consistent removal.

(C) The influent and effluent operational data must be obtained through a minimum of twelve (12) composite samples taken at approximately equal intervals throughout one (1) calendar year and meeting the following requirements:

(i) Each composite sample must consist of discrete flow-proportional samples taken at equal time intervals not to exceed two (2) hours.

(ii) The sampling period must be a minimum of twenty-four (24) hours and each effluent sample must be taken approximately one (1) detention time later than the corresponding influent sample except that, if the commissioner determines that such a sampling schedule will not be representative of the actual operation of the POTW treatment plant, an alternative sampling schedule will be required. The detention time shall be determined from the flow at the time sampling begins.

(iii) If a particular pollutant is measurable in the influent but not in the effluent, the effluent level may be assumed to be the limit of quantitation, and those data may be used by the POTW in its discretion subject to approval by the commissioner.

(iv) If the pollutant is not measurable in the influent, the data must not be used.

(v) If there are less than eight (8) samples with influent concentrations equal to or above the limit of quantitation, the commissioner may approve alternate means, such as a mass balance, for demonstrating consistent removal. The samples must be evenly distributed over the days of the week so as to include nonworkdays as well as workdays. If the commissioner determines that this schedule will not be most representative of the actual operation of the POTW, an alternative sampling schedule will be approved.

(vi) In addition, upon the commissioner's approval, a POTW may utilize an historical data base amassed prior to the effective date of this rule provided that the data meets the requirements of this subdivision. In order for the historical data base to be approved, it must present a statistically valid description of daily, weekly, and seasonal sewage treatment plant loadings and performance for at least one (1) year.

(D) Where composite sampling is not an appropriate sampling technique, a grab sample shall be taken to obtain influent and effluent operational data and shall meet the following requirements:

(i) A grab sample shall be required, for example, where the parameters being evaluated are those that may not be held for any extended period because of biological, chemical, or physical interactions that take place after sample collection and affect the results.

(ii) A grab sample is an individual sample collected over a period of time not exceeding fifteen (15) minutes.

(iii) Collection of influent grab samples should precede collection of effluent samples by approximately one (1) detention period.

(E) The sampling and analysis required by clause (C) and this clause must be performed in accordance with the following:

(i) Techniques prescribed in one (1) of the following:

(AA) 40 CFR 136 and its amendments.

(BB) Applicable categorical standards.

(ii) Applicable sampling and analytical procedures approved by EPA if one (1) of the following situations exists to make the techniques listed in item (i) inapplicable:

(AA) There is no sampling or analytical technique for the pollutant in question.

(BB) The administrator determines that the 40 CFR 136 sampling and analytical techniques are inappropriate for the pollutant in question.

(F) Consistent removal for a specific pollutant shall be determined as follows:

(i) For each sample, the difference between the pollutant concentrations in the influent and effluent must be calculated and expressed as a percentage of the influent concentration.

(ii) Removal for the pollutant shall be calculated as the average of the lowest fifty percent (50%) of the individual sample removal results. If the number of samples with quantifiable results is between eight (8) and twelve (12), the removal shall be calculated as the average of the lowest six (6) sample results.

(iii) All sample data obtained for the measured

pollutant according to clause (C) must be reported and used in calculating consistent removal.

(iv) If an alternate means is approved by the commissioner under clause (C) for demonstrating consistent removal, then removal shall be calculated as specifically provided by the commissioner.

(3) A list of the industrial subcategories for which discharge limits in categorical pretreatment standards would be revised, including the number of industrial users in each subcategory and an identification of which of the pollutants on the list prepared under subdivision (1) are discharged by each subcategory.

(4) The proposed revised discharge limits for each of the subcategories of industrial users identified in subdivision (3) calculated in the following manner:

(A) The proposed revised discharge limit for the specified pollutant must be calculated using the following formula:

$$Y = \frac{X}{1 - r}$$

Where: X = Pollutant discharge limit specified in the applicable categorical pretreatment standard (expressed in milligrams per liter).

r = POTW's consistent removal rate for that pollutant as established under this rule (percentage expressed as a decimal).

Y = Revised discharge limit for the specified pollutant (expressed in milligrams per liter).

(B) In the case of a POTW that either has combined sewers or has bypassed untreated wastewater into the receiving water at least once annually and that claims consistent removal of a pollutant under section 1(c)(1) of this rule, the proposed revised discharge limits for the specific pollutant must be calculated using the following formula:

$$r_c = r_m \frac{8760 - Z}{8760}$$

Where:  $r_m$  = POTW's consistent removal rate for a specific pollutant.

$r_c$  = Removal corrected by the overflow factor.

Z = Hours per year that overflow occurred between the industrial user and the POTW treatment plant, the hours either to be shown in the POTW's current NPDES permit application or the hours, as demonstrated by verifiable techniques, that a particular industrial user's discharge overflows between the industrial user and the POTW treatment plant.

(5) Data showing the concentrations and amounts in a

POTW's sludge of the pollutants proposed for discharge limit revisions and for which sludge disposal or use criteria applicable to the POTW's current method of sludge use or disposal have been published by EPA or the department. This data must meet the following requirements:

(A) The data must be obtained through a composite sample taken during each of the sampling periods selected to measure consistent removal in accordance with the requirements of subdivision (2)(C). Each composite sample must contain a minimum of twelve (12) discrete samples taken at equal time intervals over a twenty-four (24) hour period. Where a composite sample is not an appropriate sampling technique, grab samples must be taken.

(B) Sampling and analysis of the samples referred to in clause (A) must be performed in accordance with the sampling and analytical techniques described in subdivision (2)(E).

(6) A specific description of the following:

(A) The POTW's current method of use or disposal of its sludge.

(B) Data certifying that the current sludge use or disposal methods comply and will continue to comply with section 1(d) of this rule.

(7) A certification that the POTW has an approved POTW pretreatment program or qualifies for the exception to this requirement found at section 1(c) of this rule.

(8) A certification that the granting of removal credits will not cause a violation of the POTW's NPDES permit limits or conditions.

(c) The application to revise categorical standards must contain the following:

(1) Signature of one (1) of the following:

(A) A principal executive officer.

(B) A ranking elected official.

(C) A duly authorized employee of the POTW, if the employee is responsible for overall operation of the POTW.

(2) A certification by the signatory or an independent consulting engineer, if retained by the POTW to prepare the application, stating, "I have personally examined and am familiar with the information submitted in the attached document, and I hereby certify under penalty of law that this information was obtained in accordance with the requirements of 327 IAC 5-20-2(b). Moreover, based upon my inquiry of those individuals immediately responsible for obtaining the information reported herein, I believe that the submitted information is true, accurate, and complete."

(d) An application to revise categorical standards, upon its submittal by a POTW, will be reviewed, approved, or

denied by the commissioner in accordance with the procedures of 327 IAC 5-19-5. Approval of an application shall empower the POTW to revise only the specific discharge limits proposed under subsection (b)(4).

(e) If the state has an approved pretreatment program, the regional administrator may agree in the Memorandum of Agreement under 40 CFR 123.24(d)\* to waive the right to review and object to submissions for authority to grant removal credits. Such an agreement shall not restrict the regional administrator's right to comment upon or object to permits issued to POTW's except to the extent 40 CFR 123.24(d) allows such restriction.

(f) Nothing in this rule precludes an industrial user or other interested party from assisting the POTW in preparing and presenting the information necessary to apply for authorization.

\*40 CFR 123.24(d) is incorporated by reference. Copies of this publication may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 5-20-2; filed Oct 10, 2000, 3:02 p.m.: 24 IR 310*)

### **327 IAC 5-20-3 Conditional and provisional authorization to revise categorical standards**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 3. (a) The requirements for conditional and provisional authorization to revise categorical standards are as follows:

(1) A POTW may submit an application to the commissioner for conditional authority to revise discharge limits contained in categorical pretreatment standards prior to approval of its POTW pretreatment program. The application must conform to the requirements of section 2 of this rule.

(2) The commissioner may approve an application for conditional authority to revise discharge limits if the commissioner determines that consistent removal has been adequately demonstrated for the specific pollutant proposed for discharge limit revision. The public notice and comment procedures of 327 IAC 5-19-5 may be omitted by the commissioner in approving an application under this section. However, at the time the commissioner gives public notice of the POTW's request for approval of its POTW pretreatment program, the commissioner shall also give public notice of

the intent to ratify or not ratify the conditional authorization to revise discharge limits.

(3) If the commissioner approves the application for conditional authorization, the POTW may proceed to revise the discharge limits for the specific pollutants identified in the application subject to the following conditions:

(A) Except for section 1(a)(2) of this rule, the conditions specified by section 1 of this rule.

(B) The POTW must submit to the commissioner an application for a POTW pretreatment program approval meeting the requirements of 327 IAC 5-19-2, 327 IAC 5-19-3, and 327 IAC 5-19-4 in a timely manner, not to exceed the time limitation set forth in a compliance schedule for development of a POTW pretreatment program included in the POTW's NPDES permit.

(C) If a POTW grants a conditional revision and the commissioner subsequently makes a final determination, after notice and an opportunity for a hearing, that the POTW failed to comply with the conditions stated in this section, the following shall occur:

(i) The conditional revision shall be terminated by the commissioner.

(ii) An industrial user to whom the revised discharge limits had been applied shall achieve compliance with the applicable categorical pretreatment standard within a reasonable time, though not in excess of the time period prescribed in the applicable categorical pretreatment standard, as specified by the commissioner.

(b) For pollutants that are not currently being discharged, including pollutants expected from new or modified facilities or production changes, application may be made for provisional authorization to revise discharge limits in the applicable categorical pretreatment standard prior to initial discharge of the pollutant. Consistent removal may be based provisionally on data from treatability studies or demonstrated removal at other comparable treatment facilities where the quality and quantity of influent are similar. The procedures and conditions for provisional authorization shall be those set forth in subsection (a), except as follows:

(1) The information required for the application under section 2(b)(2) and 2(b)(5) of this rule shall be temporarily waived and the treatability data or other alternate basis for projecting removal submitted instead.

(2) Within eighteen (18) months after discharge of the pollutants granted for provisional authorization, the data specified in section 2(b)(2) and 2(b)(5) of this rule shall be gathered and submitted to the commissioner. If the data fail to demonstrate consistent removal of the pollutant, the following shall occur:

(A) The provisional revision shall be terminated by the commissioner.

(B) An industrial user that had been given revised discharge limits shall achieve compliance with the applicable categorical standards within a reasonable time, though not in excess of the time period prescribed in the applicable standards, as specified by the commissioner.

Conversely, if the data confirm consistent removal of the pollutants in question, the commissioner shall ratify the provisional authorization.

*(Water Pollution Control Board; 327 IAC 5-20-3; filed Oct 10, 2000, 3:02 p.m.: 24 IR 312)*

### **327 IAC 5-20-4 Continuation or withdrawal of authorization to revise categorical standards**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 4. (a) After a POTW has received authorization to grant removal credits for a particular pollutant regulated in a categorical pretreatment standard, it may automatically extend that removal credit to the same pollutant when it is regulated in other categorical standards, unless granting the removal credit will cause the POTW to violate its sludge requirements or its NPDES permit limits and conditions. If a POTW elects at a later time to extend removal credits to a certain categorical pretreatment standard, industrial subcategory, or one (1) or more industrial users that initially were not granted removal credits, it must notify the control authority.

(b) Following authorization to revise discharge limits from categorical pretreatment standards, the POTW shall continue to monitor and report on the POTW's removal capabilities for all pollutants for which authority to revise limits has been granted. The report shall contain the information required by section 2(b)(2)(A), 2(b)(2)(B), 2(b)(5), and 2(b)(6) of this rule. The data obtained for purposes of this report must be obtained through a composite sample taken on three (3) consecutive days during the reporting period and meet the requirements of section 2(b)(2)(C) of this rule. If no categorical pretreatment standards are yet promulgated relative to the industrial users of a POTW receiving authorization to revise discharge limits or if the POTW has received provisional authorization to revise limits under section 3(b) of this rule, the initial report shall be submitted to the commissioner within sixty (60) days after the earliest date of promulgation of an applicable categorical standard or the date the discharge of pollutants for which provisional authorization was granted commences. In all

other cases, the initial report shall be submitted within six (6) months after the date authorization to revise limits was granted. Subsequent reports shall be submitted at six (6) month intervals unless required more frequently by the commissioner.

(c) Approval of authority to revise categorical pretreatment standards will be reexamined whenever the POTW's NPDES permit is reissued or whenever the categorical pretreatment standard is revised by EPA unless the commissioner determines the need to reevaluate the authority earlier as required by subsection (e). In addition, where overflows of untreated waste by the POTW continue to occur, the commissioner may condition continued authorization to revise discharge limits upon the POTW performing additional analysis or implementing additional control measures as is consistent with departmental policy toward POTW bypasses.

(d) After authority to revise discharge limits for a specified pollutant is granted, the revised discharge limits for industrial users of the POTW's system, as well as the consistent removal documented by the POTW for that pollutant, and the other conditions of section 1 of this rule shall be included in the POTW's NPDES permit upon the earliest reissuance or modification (at or following the POTW pretreatment program approval) and shall become enforceable requirements of the POTW's NPDES permit. The removal credits will remain in effect for the term of the POTW's NPDES permit, provided the POTW maintains compliance with the conditions of this rule.

(e) If, on the basis of pollutant removal capability reports received as required by subsection (b) or other information available to it, the commissioner determines that:

- (1) one (1) or more of the discharge limit revisions made by the POTW or the POTW itself no longer meets the requirements of section 1 of this rule; or
- (2) such discharge limit revisions are causing or significantly contributing to a violation of any conditions or limits contained in the POTW's NPDES permit;

then the commissioner shall notify the POTW and, if appropriate corrective action is not taken within a reasonable time, not to exceed sixty (60) days (unless the POTW or the affected industrial users demonstrate that a longer time period is reasonably necessary to undertake the appropriate corrective action), either withdraw or require modifications in the revised discharge limits.

(f) The commissioner shall not withdraw or modify revised discharge limits according to subsection (e) without doing the following:

- (1) Notifying the POTW and all industrial users to whom revised discharge limits have been applied of

the information required by subdivision (2).

(2) Giving written notice of the following:

(A) The reasons for such withdrawal or modification.

(B) The time to be allowed for new compliance dates.

(3) Providing an opportunity for a hearing.

(g) After receiving notice of withdrawal or modification from the commissioner according to subsections (e) and (f), all industrial users to whom revised discharge limits had been applied shall be subject to the modified limits or the discharge limits prescribed in the applicable categorical pretreatment standards, as appropriate, and shall achieve compliance with such limits within a reasonable time, though not in excess of the time period prescribed in the applicable categorical pretreatment standard, as may be specified by the commissioner. (*Water Pollution Control Board; 327 IAC 5-20-4; filed Oct 10, 2000, 3:02 p.m.: 24 IR 313*)

### **Rule 21. Industrial Wastewater Pretreatment Permit Program**

327 IAC 5-21-1	Purpose
327 IAC 5-21-2	Applicability of industrial wastewater pretreatment permits
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#### **327 IAC 5-21-1 Purpose**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 1. The purpose of this rule is to establish an administrative program for the issuance of a permit that specifies a minimum acceptable degree of pretreatment required for the discharge of certain industrial wastewater into a POTW. The applicability of these permits and the procedures for their issuance are defined. (*Water Pollution Control Board; 327 IAC 5-21-1; filed Oct 10, 2000, 3:02 p.m.: 24 IR 314*)

#### **327 IAC 5-21-2 Applicability of industrial wastewater pretreatment permits**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 2. (a) An industrial user shall be required to obtain an IWP permit for a discharge of wastewater into a POTW if one (1) of the following situations exists:

(1) The discharge is from a significant industrial user as defined in 327 IAC 5-17-22 and is discharged into a POTW that is not required to have an approved POTW pretreatment program under 327 IAC 5-19-1.

(2) The commissioner determines that an IWP permit is needed for effective control of an industrial discharge.

(b) An industrial user subject to the terms of subsection (a) shall submit an application for an IWP permit to the commissioner prior to commencing the discharge of industrial wastewater to a POTW.

(c) An existing industrial user that intends to add a pollutant not limited by the valid IWP permit or increase discharge of a pollutant limited by the IWP permit must apply for an IWP permit modification from the commissioner prior to commencing discharge containing the additional pollutant. (*Water Pollution Control Board; 327 IAC 5-21-2; filed Oct 10, 2000, 3:02 p.m.: 24 IR 314*)

#### **327 IAC 5-21-3 Permit application submission requirements**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 3. An application for an IWP permit must conform to the following:

(1) Be completed on a form prescribed by the commissioner.

(2) Be signed in accordance with 327 IAC 5-2-22(a).

(3) Be submitted to the commissioner according to the following time requirements:

(A) No later than one hundred eighty (180) days prior to the expiration date of an existing permit if the industrial user intends to continue discharging to the POTW.

(B) No later than one hundred eighty (180) days prior to the date when a new industrial discharger intends to commence discharging to a POTW.

(C) In the case of an initial issuance of an IWP permit to a significant industrial user or to an industrial user determined by the commissioner to be subject to the IWP permit requirements, no later than one hundred twenty (120) days after the latter of:

(i) the promulgation of an applicable categorical pretreatment standard; or

(ii) the date of notification by the commissioner of a determination made according to section 2(a)(2) of this rule.

(D) No later than one hundred twenty (120) days prior to a planned expansion or modification of production or treatment facilities or processes that are likely to cause a significant increase in quantity of pollutants or a change in the nature of pollutants discharged to the POTW by an industrial user with an existing IWP permit.

*(Water Pollution Control Board; 327 IAC 5-21-3; filed Oct 10, 2000, 3:02 p.m.: 24 IR 315)*

### **327 IAC 5-21-4 Effect of permit issuance**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 4. An IWP permit holder shall comply with the requirements of the following:

- (1) The IWP permit as issued or modified.
- (2) The POTW receiving the permitted industrial discharge.
- (3) The local government having jurisdiction over the industrial discharge or the construction or operation of the discharging facility.

*(Water Pollution Control Board; 327 IAC 5-21-4; filed Oct 10, 2000, 3:02 p.m.: 24 IR 315)*

### **327 IAC 5-21-5 Duration and transferability of an IWP permit**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 5. The provisions of 327 IAC 5-2-6 concerning the duration, continuation, and transferability of NPDES permits also apply to IWP permits issued under this rule.

*(Water Pollution Control Board; 327 IAC 5-21-5; filed Oct 10, 2000, 3:02 p.m.: 24 IR 315)*

### **327 IAC 5-21-6 Conditions applicable to all permits**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 6. (a) The following conditions apply to all IWP permits and must be expressly incorporated into the permit or incorporated by reference:

- (1) Permit conditions specified in 327 IAC 5-2-8(1) through 327 IAC 5-2-8(3), 327 IAC 5-2-8(7) through 327 IAC 5-2-8(9), and 327 IAC 5-2-8(13).
- (2) The upset provision according to 327 IAC 5-16-6.
- (3) The bypass provision according to 327 IAC 5-16-7.

(4) The enforcement provision according to 327 IAC 5-16-4.

(b) An IWP permit may be modified in whole or in part, revoked and reissued, or terminated during its term for cause in accordance with the pertinent provisions of 327 IAC 5-2-16. An IWP permittee must:

- (1) report to the commissioner plans for or information about any activity that has occurred or will occur that would constitute cause for modification or revocation and reissuance under this section;
- (2) comply with the existing IWP permit until it is modified or reissued; and
- (3) abide by the commissioner's decision:
  - (A) to modify or revoke and reissue the permit; and
  - (B) require submission of a new application as required by section 3 of this rule.

(c) If the permittee does not or will not be able to comply for any reason with any discharge limitation specified in the IWP permit, the permittee shall provide the commissioner with the following information within twenty-four (24) hours of an event of permit noncompliance:

- (1) A description of the discharge and cause of non-compliance.
- (2) The period of noncompliance, including exact dates and times of the noncomplying event and the anticipated time when the discharge will return to compliance.
- (3) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

(d) The permittee shall take all reasonable steps to minimize any adverse impact to the POTW or to waters of the state resulting from noncompliance with the IWP permit. *(Water Pollution Control Board; 327 IAC 5-21-6; filed Oct 10, 2000, 3:02 p.m.: 24 IR 315)*

### **327 IAC 5-21-7 Applicable discharge limitations and related conditions**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 7. Permits issued under this rule must ensure compliance with the following as applicable:

- (1) The most stringent pretreatment standards and requirements specified in 327 IAC 5-18 that are applicable to a particular discharge. For purposes of this section, a pretreatment standard or requirement is applicable if it applies by its terms to the discharge and becomes effective prior to final issuance of an IWP permit.
- (2) With respect to an IWP permit to be issued to an industrial user within one (1) of the industrial catego-

ries or subcategories listed in 327 IAC 5-18-10, if an applicable categorical pretreatment standard has not yet been promulgated under Section 307(b) or 307(c) of the Clean Water Act (33 U.S.C. 1317(b) or 33 U.S.C. 1317(c)), the permit shall include a condition stating that if such a categorical pretreatment standard is subsequently promulgated that is more stringent than any discharge limit in the permit or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked and reissued in accordance with such categorical pretreatment standard.

(3) The alternative discharge limitations or standards where warranted by fundamentally different factors under 327 IAC 5-18-5(a).

(4) The best management practices to control or abate the discharge of pollutants where:

- (A) numeric effluent limitations are infeasible; or
- (B) the practices are reasonably necessary to achieve discharge limitations and standards or to carry out the purposes of the Clean Water Act (33 U.S.C. 1251).

(5) No permit shall be issued for the discharge of any radiological, chemical, or biological warfare agent or high level radioactive waste.

(6) If the promulgated pretreatment standards, listed in 327 IAC 5-18-10, are based on production or equivalent concentration limitations, then equivalent mass limitations may be applied in place of the standard where appropriate in the permit. If equivalent limitations are applied, the permit limitations shall be calculated in accordance with 327 IAC 5-18-4(d).

(7) Discharges that are not continuous shall be particularly described and limited, considering the following factors, as appropriate:

- (A) Frequency.
- (B) Total mass.
- (C) Maximum rate of discharge of pollutants during the discharge.
- (D) Prohibition or limitation of specified pollutants by mass, concentration, or other appropriate measure.

(8) If permit effluent limitations or standards imposed at the point of discharge are impractical or infeasible, then effluent limitations or standards for discharges of pollutants may be imposed on internal waste streams prior to mixing with other waste streams or cooling water streams with the following requirements applied:

- (A) The monitoring required by section 9 of this rule shall also be applied to the internal waste streams.
- (B) The effluent limitations on internal waste streams shall be developed in accordance with the provisions of 327 IAC 5-2-11(h).

*(Water Pollution Control Board; 327 IAC 5-21-7; filed Oct 10, 2000, 3:02 p.m.: 24 IR 316)*

### **327 IAC 5-21-8 Schedules of compliance**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 8. If necessary, an IWP permit shall contain a schedule of compliance established in accordance with 327 IAC 5-2-12(a), 327 IAC 5-2-12(b), 327 IAC 5-2-12(d), 327 IAC 5-2-12.1, 327 IAC 5-18-4(c), and 327 IAC 5-18-8. *(Water Pollution Control Board; 327 IAC 5-21-8; filed Oct 10, 2000, 3:02 p.m.: 24 IR 316)*

### **327 IAC 5-21-9 Monitoring**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 9. Monitoring requirements shall be specified in an IWP permit:

- (1) to assure compliance with discharge limitations and other terms and conditions of the permit;
- (2) in accordance with the provisions of 327 IAC 5-2-13(c) through 327 IAC 5-2-13(e); and
- (3) may include monitoring for one (1) or more of the following:
  - (A) Pollutant mass.
  - (B) Pollutant concentration.
  - (C) Other appropriate measurement for each pollutant as well as other parameters and conditions specified in the permit.

*(Water Pollution Control Board; 327 IAC 5-21-9; filed Oct 10, 2000, 3:02 p.m.: 24 IR 316)*

### **327 IAC 5-21-10 Recording and reporting of monitoring results**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 10. An IWP permittee shall record and report the results of monitoring required under section 9 of this rule according to the requirements:

- (1) specified in the IWP permit; and
- (2) of 327 IAC 5-2-14 and 327 IAC 5-2-15.

*(Water Pollution Control Board; 327 IAC 5-21-10; filed Oct 10, 2000, 3:02 p.m.: 24 IR 317)*

### **327 IAC 5-21-11 Public notice procedures for IWP permit issuance**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-4

Sec. 11. An IWP permit shall be issued by the commissioner in accordance with the following:

(1) Prior to permit issuance, a public notice containing the information specified in 327 IAC 5-3-12(a) through 327 IAC 5-3-12(c) and a copy of the briefing memo shall be provided to the following:

- (A) The permit applicant.
- (B) The POTW receiving the discharge.
- (C) Any interested person who has:
  - (i) specifically requested the notice and statement of basis for a particular draft permit; or
  - (ii) requested to be placed on a mailing list for receipt of such information on all IWP permits proposed for issuance.

(2) A thirty (30) day comment period on the draft permit shall be opened by the commissioner who shall duly consider comments received during this period in the final determination on the issuance of the permit.

(3) 327 IAC 5-3-14 concerning permit issuance and effective date of the permit.

(4) 327 IAC 5-3-15 concerning response to comments received pursuant to subdivision (1).

(5) 327 IAC 5-3-16 concerning judicial review of a IWP permit issued pursuant to this rule.

*(Water Pollution Control Board; 327 IAC 5-21-11; filed Oct 10, 2000, 3:02 p.m.: 24 IR 317)*

## **Rule 22. Classification of Wastewater Treatment Plants; Examination and Certification of Operators**

327 IAC 5-22-1	Purpose
327 IAC 5-22-2	Applicability
327 IAC 5-22-3	Definitions
327 IAC 5-22-4	Classification of wastewater treatment plants; nonindustrial treatment plants
327 IAC 5-22-5	Classification of wastewater treatment plants; industrial treatment plants
327 IAC 5-22-6	Classification of wastewater treatment plants; reclassification
327 IAC 5-22-7	Qualifications of a certified operator
327 IAC 5-22-8	Classification of certified operators
327 IAC 5-22-9	Substitution of qualifications
327 IAC 5-22-10	Responsibilities
327 IAC 5-22-11	Examination of applicants to become a certified wastewater treatment operator
327 IAC 5-22-12	Wastewater treatment operator certification fees
327 IAC 5-22-13	Certification; reciprocity; provisional certificate
327 IAC 5-22-14	Certificates and certification cards; renewal; duplicates
327 IAC 5-22-15	Continuing education requirements
327 IAC 5-22-16	Continuing education credit; criteria for approval
327 IAC 5-22-17	Continuing education credit; training provider responsibilities
327 IAC 5-22-18	Suspension or revocation of certification

### **327 IAC 5-22-1 Purpose**

**Authority:** IC 13-14-8; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 1. The purpose of this rule is to establish:

- (1) a classification system of wastewater treatment plants; and
- (2) the criteria by which a person may become a certified wastewater treatment operator.

The intended result of this rule is to promote excellence among wastewater treatment operators for the ultimate goal of protecting Indiana waters receiving treated wastewater discharged from wastewater treatment plants. *(Water Pollution Control Board; 327 IAC 5-22-1; filed Nov 20, 2000, 4:07 p.m.: 24 IR 963)*

### **327 IAC 5-22-2 Applicability**

**Authority:** IC 13-14-8; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 2. The requirements of this rule apply to a person who works at a wastewater treatment plant in the capacity of a wastewater treatment operator. *(Water Pollution Control Board; 327 IAC 5-22-2; filed Nov 20, 2000, 4:07 p.m.: 24 IR 963)*

### **327 IAC 5-22-3 Definitions**

**Authority:** IC 13-14-8; IC 13-18-11-13

**Affected:** IC 13-11-2; IC 13-18-11

Sec. 3. In addition to the definitions contained in IC 13-11-2 and 327 IAC 1, the following definitions apply throughout this rule:

- (1) "Acceptable experience" means employment in the actual hands-on operation of a wastewater treatment plant. Experience in wastewater treatment plant maintenance will be given fifty percent (50%) credit for operational experience for those employed solely in this area. Experience in wastewater laboratory will be given full credit for operational experience for those employed solely in this area.
- (2) "Applicant" means a person seeking certification as a wastewater treatment operator, whether or not the person is currently employed as an operator.
- (3) "Application" means a written request for certification under this rule addressed to the commissioner.
- (4) "Certificate" means an appropriate document containing the following information:

(A) Affirmation that the named person has fulfilled the requirements, including receiving a passing examination grade, necessary for the operation of the wastewater treatment plant or collection system for which application was made.

(B) The treatment plant classification that may be

operated under the issued certificate.

(C) The date of issuance.

(D) An identification number unique to each certificate document.

(5) "Certification card" means a card issued to a person who has fulfilled the requirements to be a wastewater certified operator and contains the following information:

(A) The name and certificate number of the person.

(B) The classification of wastewater treatment plant that the named person may operate.

(C) An expiration date.

(6) "Certified operator" means a person who has:

(A) met the requirements of this rule; and

(B) a valid certificate for wastewater treatment.

(7) "Contact hour" means a fifty (50) to sixty (60) minute instructional session involving a qualified instructor or lecturer. Ten (10) contact hours equals one (1) continuing education unit (CEU).

(8) "Design population equivalent" means the PE for which the plant is designed.

(9) "Population equivalent" or "PE" means the calculated population that would contribute the same amount of biochemical oxygen demand (BOD) per day using the base of seventeen-hundredths (0.17) pound of five (5) day BOD per capita per day.

(10) "Responsible charge" means the person responsible for the overall daily operation, supervision, or management of a water or wastewater facility. In Class III, IV, C, or D plants, the individual supervising and responsible for a major section of the plant or an operating shift may be credited with responsible charge experience.

(11) "Training provider" means a person or organization that conducts or presents a course training session approved under this rule.

*(Water Pollution Control Board; 327 IAC 5-22-3; filed Nov 20, 2000, 4:07 p.m.: 24 IR 963)*

### **327 IAC 5-22-4 Classification of wastewater treatment plants; nonindustrial treatment plants**

**Authority:** IC 13-14-8; IC 13-18-11-2; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 4. A nonindustrial wastewater treatment plant shall be classified into one (1) of five (5) classifications based on the design population equivalent of the plant according to the following:

(1) Class I-SP includes all waste stabilization ponds, whether controlled discharge or continuous discharge, regardless of flow.

(2) Class I includes plants having a design population

equivalent of less than two thousand (2,000).

(3) Class II includes plants having a design population equivalent equal to or greater than two thousand (2,000) and less than ten thousand (10,000).

(4) Class III includes plants having a design population equivalent equal to or greater than ten thousand (10,000) and less than forty thousand (40,000).

(5) Class IV includes plants having a design population equivalent greater than forty thousand (40,000).

*(Water Pollution Control Board; 327 IAC 5-22-4; filed Nov 20, 2000, 4:07 p.m.: 24 IR 964)*

### **327 IAC 5-22-5 Classification of wastewater treatment plants; industrial treatment plants**

**Authority:** IC 13-14-8; IC 13-18-11-2; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 5. (a) An industrial wastewater treatment plant shall be classified into one (1) of five (5) classifications based on the type of treatment provided, design population equivalent, and the average daily flow according to the following:

(1) Class A-SO includes industrial treatment plants having the following:

(A) Primary solids removal facilities, such as settling tanks, settling ponds, sand filters, or screens, used only for removal of settleable inorganic solids.

(B) Tanks, ponds, centrifuges, or other facilities used to separate floatable oils and solids.

(C) Simple pH neutralization may be included.

Wastewater flow is not a limiting factor in the classification of this type of industrial treatment plant.

(2) Class A includes industrial treatment plants having the following:

(A) Secondary treatment facilities, such as:

(i) waste stabilization ponds whether anaerobic or aerobic;

(ii) trickling filter;

(iii) activated sludge-type treatment plants;

(iv) aerated lagoons; or

(v) other biological treatment facilities that treat wastewater loads of less than two thousand (2,000) design population equivalent.

(B) Spray, broad, or ridge and furrow irrigation facilities that treat a wastewater flow of less than two hundred thousand (200,000) gallons per day.

(3) Class B includes industrial treatment plants having the following:

(A) Secondary treatment facilities, such as:

(i) waste stabilization ponds whether anaerobic or aerobic;

(ii) trickling filter;

- (iii) activated sludge-type treatment plants;
  - (iv) aerated lagoons; or
  - (v) other biological treatment facilities that treat wastewater loads equal to or greater than two thousand (2,000) design population equivalent and less than ten thousand (10,000) design population equivalent.
- (B) Spray, broad, or ridge and furrow irrigation facilities that treat a wastewater flow equal to or greater than two hundred thousand (200,000) gallons per day and less than one million (1,000,000) gallons per day.
- (C) Chemical treatment facilities that process or treat wastewater flow of less than fifty thousand (50,000) gallons per day using one (1) of the following methods:
- (i) Cyanide destruction.
  - (ii) Chromium reduction.
  - (iii) Acid or alkali neutralization.
  - (iv) Coagulation and flocculation.
  - (v) Air flotation.
  - (vi) Air stripping.
  - (vii) Wet air oxidation.
  - (viii) Ion exchange.
  - (ix) Ultrafiltration.
  - (x) Reverse osmosis.
  - (xi) Activated carbon filtration.
- (4) Class C includes industrial treatment plants having the following:
- (A) Secondary treatment facilities such as:
- (i) waste stabilization ponds whether anaerobic or aerobic;
  - (ii) trickling filter;
  - (iii) activated sludge-type treatment plants;
  - (iv) aerated lagoons; or
  - (v) other biological treatment facilities that treat wastewater loads equal to or greater than ten thousand (10,000) design population equivalent and less than forty thousand (40,000) design population equivalent.
- (B) Spray, broad, or ridge and furrow irrigation facilities that treat a wastewater flow equal to or greater than one million (1,000,000) gallons per day and less than four million (4,000,000) gallons per day.
- (C) Chemical treatment facilities that process or treat wastewater flow equal to or greater than fifty thousand (50,000) gallons per day and less than two hundred thousand (200,000) gallons per day using one (1) of the following methods:
- (i) Cyanide destruction.
  - (ii) Chromium reduction.
  - (iii) Acid or alkali neutralization.
  - (iv) Coagulation and flocculation.
- (v) Air flotation.
  - (vi) Air stripping.
  - (vii) Wet air oxidation.
  - (viii) Ion exchange.
  - (ix) Ultrafiltration.
  - (x) Reverse osmosis.
  - (xi) Activated carbon filtration.
- (5) Class D includes industrial treatment plants having the following:
- (A) Secondary treatment facilities such as:
- (i) waste stabilization ponds whether anaerobic or aerobic;
  - (ii) trickling filter;
  - (iii) activated sludge-type treatment plants;
  - (iv) aerated lagoons; or
  - (v) other biological treatment facilities that treat wastewater loads equal to or greater than forty thousand (40,000) design population equivalent.
- (B) Chemical treatment facilities that process or treat a wastewater flow equal to or greater than two hundred thousand (200,000) gallons per day using one (1) of the following methods:
- (i) Cyanide destruction.
  - (ii) Chromium reduction.
  - (iii) Acid or alkali neutralization.
  - (iv) Coagulation and flocculation.
  - (v) Air flotation.
  - (vi) Air stripping.
  - (vii) Wet air oxidation.
  - (viii) Ion exchange.
  - (ix) Ultrafiltration.
  - (x) Reverse osmosis.
  - (xi) Activated carbon filtration.
- (C) Deep well disposal systems, thermal evaporators, or incinerators used in conjunction with liquid waste disposal.
- (D) Two (2) or more wastewater treatment plants at one (1) industrial site if each independent wastewater treatment plant is classified as a Class B or C wastewater treatment plant.
- (E) An industry utilizing a highly complex wastewater treatment method.
- (b) If an industrial wastewater treatment plant has more than one (1) treatment process despite having only one (1) wastewater treatment plant, that industrial wastewater treatment plant shall be classified into the classification of the most complex component of wastewater treatment performed in relation to the following factors:
- (1) Secondary treatment PE.
  - (2) Spray irrigation volume.
  - (3) Chemical treatment volume.
- (Water Pollution Control Board; 327 IAC 5-22-5; filed Nov 20, 2000, 4:07 p.m.: 24 IR 964)*

### 327 IAC 5-22-6 Classification of wastewater treatment plants; reclassification

**Authority:** IC 13-14-8; IC 13-18-11-2; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 6. (a) A wastewater treatment plant may be reclassified by the commissioner if a change occurs to the wastewater treatment plant's operation, treatment process, or influent wastewater. The commissioner shall do the following:

(1) Consider reclassification of a wastewater treatment plant based upon information supplied by the governing body or owner in a construction permit application for modification.

(2) Give written notice of a reclassification to the governing body or owner and to the certified operator in responsible charge indicating the following:

(A) The classification of certified operator that is necessary to supervise the reclassified wastewater treatment plant.

(B) A date by which time a certified operator required according to clause (A) must be in responsible charge of the reclassified wastewater treatment plant.

(b) A wastewater treatment plant may be reclassified by the commissioner if one (1) of the following situations exists:

(1) The wastewater treatment plant utilizes special or complex equipment or features of design requiring more difficult operation.

(2) The wastewater is unusually difficult to treat.

(3) More than ordinary chemical or bacteriological controls are required.

(4) An unusually high degree of skill is required in the operation of the wastewater treatment plant to assure continuous production of effluent that meets the water quality requirements of the receiving stream and the national pollutant discharge elimination system (NPDES) permit limitations.

*(Water Pollution Control Board; 327 IAC 5-22-6; filed Nov 20, 2000, 4:07 p.m.: 24 IR 965)*

### 327 IAC 5-22-7 Qualifications of a certified operator

**Authority:** IC 13-14-8; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 7. (a) In order to become a wastewater treatment plant certified operator, a person must:

(1) meet the minimum qualifications specified in subsection (b); and

(2) pass the wastewater treatment certification examination required by the commissioner unless exempted by statute or rule.

(b) Prior to applying to take the commissioner's wastewater treatment certification examination, a person must have the following qualifications:

(1) The educational skills necessary to:

(A) cipher fractions and decimals;

(B) read a linear scale;

(C) calculate volumes of simple shapes;

(D) make simple computations of multiplication and division;

(E) keep records;

(F) read and write the English language to the extent of interpreting service manuals and work orders and submitting written reports; and

(G) understand basic principles of science and sanitation.

(2) Experience acceptable to the commissioner in the field of wastewater treatment that:

(A) demonstrates the examination applicant's technical knowledge;

(B) can be verified based on information from available sources, primarily the applicant's wastewater treatment plant employer; and

(C) is the result of satisfactory accomplishment of wastewater treatment plant work measured from the date of employment of the applicant to the end of the thirty (30) day grading period following the examination.

(c) In accordance with 327 IAC 8-12-3.2(e), a grade WT3, WT4, and WT5 operator is qualified to apply for the appropriate wastewater treatment certification to treat wastewater from a water treatment plant provided the operator is certified to operate that classification of water treatment plant. *(Water Pollution Control Board; 327 IAC 5-22-7; filed Nov 20, 2000, 4:07 p.m.: 24 IR 965)*

### 327 IAC 5-22-8 Classification of certified operators

**Authority:** IC 13-14-8; IC 13-18-11-3; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 8. A wastewater treatment certified operator may possess a valid certification in one (1) or more of the following eleven (11) classes of certified operators:

(1) Class operator-in-training (O.I.T.) is a class for both industrial and nonindustrial wastewater treatment plant operators to whom a certificate shall be issued for a nonrenewable, one (1) year period. In order to be an eligible examination applicant for this operator class, a person must have attained the following:

(A) A high school diploma or equivalent education.

(B) Three (3) months of acceptable experience in a wastewater treatment plant or completion of an approved training course.

(2) Class A-SO is a class for industrial wastewater

treatment plant operators of Class A-SO wastewater treatment plants. In order to be an eligible examination applicant for this operator class, a person must have attained the following:

(A) Completion of high school or equivalent education.

(B) One (1) year of acceptable experience in a wastewater treatment plant.

(3) Class I and Class I-SP are classes for nonindustrial wastewater treatment plant operators and Class A is a class for industrial wastewater treatment plant operators. In order to be an eligible examination applicant for these operator classes, a person must have attained the following:

(A) A high school diploma or equivalent education.

(B) One (1) year of acceptable experience at a wastewater treatment plant.

(4) Class II is a class for nonindustrial wastewater treatment plant operators, and Class B is a class for industrial wastewater treatment plant operators. In order to be an eligible examination applicant for these operator classes, a person must have attained the following:

(A) A high school diploma or equivalent education.

(B) Three (3) years of acceptable experience at a wastewater treatment plant.

(5) Class III is a class for nonindustrial wastewater treatment plant operators, and Class C is a class for industrial wastewater treatment plant operators. In order to be an eligible examination applicant for these operator classes, a person must have attained the following:

(A) A high school diploma or equivalent education.

(B) Three (3) years of acceptable experience at a wastewater treatment plant of one (1) of the following types:

- (i) Class II.
- (ii) Class III.
- (iii) Class IV.
- (iv) Class B.
- (v) Class C.
- (vi) Class D.

(C) Two (2) years of the three (3) years experience

required by clause (B) must be in a position of responsible charge at a wastewater treatment plant of one (1) of the following types:

- (i) Class II.
- (ii) Class III.
- (iii) Class IV.
- (iv) Class B.
- (v) Class C.
- (vi) Class D.

(6) Class IV is a class for nonindustrial wastewater treatment plant operators, and Class D is a class for industrial wastewater treatment plant operators. In order to be an eligible examination applicant for these operator classes, a person must have attained the following:

(A) A college degree with a major in a science curriculum or an associate's degree in a curriculum related to wastewater treatment.

(B) At least five (5) years of acceptable experience at a wastewater treatment plant of one (1) of the following types:

- (i) Class III.
- (ii) Class IV.
- (iii) Class C.
- (iv) Class D.

(C) Two (2) years of the five (5) years experience required by clause (B) must be in a position of responsible charge at a wastewater treatment plant of one (1) of the following types:

- (i) Class III.
- (ii) Class IV.
- (iii) Class C.
- (iv) Class D.

*(Water Pollution Control Board; 327 IAC 5-22-8; filed Nov 20, 2000, 4:07 p.m.: 24 IR 966)*

**327 IAC 5-22-9 Substitution of qualifications**

**Authority: IC 13-14-8; IC 13-18-11-13**

**Affected: IC 13-18-11**

Sec. 9. Education and experience qualifications required by section 8 of this rule may be fulfilled through substitutions based on the following table:

Class	Education	Total Required	Experience		Substitution of Experience for Responsible Charge	Substitution of Experience for Education
			Substitutable			
O.I.T.	High school diploma or G.E.D.	3 months	3 months	See Note (4)	—	See Note (2)

A-SO, A, I, and I-SP	High school diploma or G.E.D.	1 year	0	—	See Note (2)
B and II	High school diploma or G.E.D.	3 years	1 year See Note (1)	—	See Note (2)
C and III	High school diploma or G.E.D.	3 years at Class B, II, or higher and 2 years responsible charge	1 year See Note (1)	See Note (5)	See Note (2)
D and IV	College degree See Note (3)	5 years at Class C, III, or higher and 2 years responsible charge	2 years See Note (1)	See Note (5)	See Note (2)

Note (1): Sixteen (16) semester hours, twenty-four (24) credit hours, or twenty-four (24) continuing education units equals one (1) year of experience. There is no substitution of education for responsible charge experience. The portion of education that is applied toward substitution for experience cannot be used for the education requirement.

Note (2): One (1) year of experience equals two (2) years of high school or six (6) months of college. One (1) year of responsible charge experience equals one (1) year of college. The portion of experience that is applied toward substitution for education cannot be used for the experience requirement.

Note (3): One (1) year of college equals thirty-two (32) semester hours, forty-eight (48) credit hours, or four hundred eighty (480) contact hours.

Note (4): Three (3) months of experience may be substituted with the completion of a comprehensive course in wastewater treatment approved by the commissioner.

Note (5): Operational, responsible charge, and educational experience are interchangeable at the following ratios: Two (2) years of operational experience equals one (1) year of responsible charge experience. Two (2) years of operational experience equals one (1) year of college education or two (2) years of high school education. One (1) year of responsible charge experience equals one (1) year of college education or two (2) years of high school education. The portion of experience that is interchanged for another may not be used to satisfy any remaining experience requirement.

(*Water Pollution Control Board; 327 IAC 5-22-9; filed Nov 20, 2000, 4:07 p.m.: 24 IR 967*)

### 327 IAC 5-22-10 Responsibilities

**Authority:** IC 13-14-8; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 10. (a) The owner or governing body of a wastewater treatment plant shall notify the commissioner when there is a change of the person serving as the certified operator in responsible charge of the wastewater treatment facility. The notification shall be made no later than thirty (30) days after a change in the operator.

(b) A certified operator may be designated as being in responsible charge of more than one (1) wastewater treatment plant if it can be demonstrated that the certified operator will give adequate supervision to all units involved. As used in this section, "adequate supervision" means that sufficient time is spent at the wastewater treatment plant on a regular basis to assure that the certified operator is knowledgeable of the actual operations and that test reports and results are representative of the actual operational conditions. (*Water Pollution Control Board; 327 IAC 5-22-10; filed Nov 20, 2000, 4:07 p.m.: 24 IR 968*)

### 327 IAC 5-22-11 Examination of applicants to become a certified wastewater treatment operator

**Authority:** IC 13-14-8; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 11. (a) A standardized examination prepared to reflect the duties and responsibilities required of each classification of wastewater treatment operator shall be:

- (1) used to test knowledge, ability, and judgment of an applicant to become a certified wastewater treatment operator;
- (2) conducted at least annually; and
- (3) held at places and times established by the commissioner:

(A) with at least sixty (60) days advanced announcement; and

(B) except in such cases as may be declared necessary exceptions by the commissioner.

(b) A person wishing to be examined for wastewater treatment certification shall fulfill the following requirements:

- (1) Complete an application on a form approved by the commissioner that:
- (A) contains true and accurate information to the best of the applicant's knowledge; and
  - (B) is free of omissions and misrepresentations, either of which may result in rejection of the application or revocation of any certificate previously granted.
- (2) Submit a completed application, with the necessary fee, to the commissioner not later than forty-five (45) days preceding the date of the examination.
- (c) The commissioner shall:
- (1) review an application and supporting documents concerning the eligibility of an applicant for wastewater treatment certification examination; and
  - (2) issue a written notification in the form of an admission slip providing the time and place of the examination to be presented by an applicant deemed eligible for examination.
- (d) A person who has been notified and scheduled to take an examination:
- (1) may submit a written request to the commissioner for a postponement to take the examination one (1) offering later than the examination granted by the commissioner if:
    - (A) the postponement for a nonemergency reason is requested no later than fourteen (14) days prior to the examination date noticed to the applicant under subsection (c)(2);
    - (B) the postponement request for an emergency reason is submitted as soon as conditions of the emergency warrant;
    - (C) the applicant provides the commissioner an explicit description of extenuating circumstances necessitating the requested postponement; and
    - (D) the applicant understands that only one (1) postponement shall be allowed; or
  - (2) will be considered to have failed that examination if one (1) of the following occurs:
    - (A) The person does not attend the examination and has not requested a postponement according to subdivision (1).
    - (B) The person is caught cheating on an examination, an occurrence that will make an applicant ineligible to take any operator certification examination for a period of two (2) years following the examination date of the incidence of cheating.
- (e) Completed examinations shall be managed by the commissioner according to the following:
- (1) Graded in a manner prescribed by the commissioner with a minimum result of seventy percent (70%) needed in order to pass the examination.
  - (2) The commissioner shall notify an applicant of the

examination result:

- (A) in writing; and
  - (B) no later than two (2) months after the date of the examination.
- (3) Examination papers shall be retained by the commissioner with an opportunity afforded to an applicant notified of having failed the examination for review of the graded examination until a date ninety (90) days prior to the next scheduled examination if the applicant submits the following to the commissioner:
- (A) A written request for review of the graded examination.
  - (B) A statement affirming the applicant's understanding that examination review does not include the right to copy, by any means, the examination or any portion of it.
- (f) A person previously certified as a wastewater treatment operator under this rule but who has failed to meet the renewal requirements according to section 14 of this rule must fulfill the following:
- (1) Retake an examination.
  - (2) Successful completion of continuing education requirements in the amount required for one (1) renewal period as specified in section 15 of this rule.
  - (g) The following exceptions may allow a person to receive wastewater treatment certification without taking an examination:
    - (1) A person seeking wastewater treatment operator's certification by reciprocal recognition or on a provisional basis according to section 13 of this rule may file an application required by subsection (b) at the applicant's convenience, subject to expiration dates delineated in other sections of this rule.
    - (2) A certified operator holding a valid nonindustrial wastewater treatment certificate for Class I, Class II, Class III, or Class IV may obtain a Class A industrial certificate without examination by submitting an application required by subsection (b) for the Class A certificate.
    - (3) A certified operator holding a valid industrial certificate for Class A, Class B, Class C, or Class D may obtain a Class I nonindustrial certificate without examination by submitting an application required by subsection (b) for the Class I certificate.
- (Water Pollution Control Board; 327 IAC 5-22-11; filed Nov 20, 2000, 4:07 p.m.: 24 IR 968)*

**327 IAC 5-22-12 Wastewater treatment operator certification fees**

**Authority:** IC 13-14-8; IC 13-18-11-6; IC 13-18-11-13  
**Affected:** IC 13-18-11-15

Sec. 12. (a) Fees for wastewater treatment operator

certification shall be as follows:

- (1) Certification, including certificate \$30
- (2) Certification by examination for a new classification \$30
- (3) Biennial renewal fee \$30

(b) An application fee will not be returned to an applicant who:

- (1) is deemed by the commissioner to be ineligible for wastewater certification examination;
- (2) does not receive a minimum score of seventy percent (70%) according to section 11(e)(1) of this rule; or
- (3) has violated section 11(d)(2)(B) of this rule by cheating on the operator certification examination.

*(Water Pollution Control Board; 327 IAC 5-22-12; filed Nov 20, 2000, 4:07 p.m.: 24 IR 969)*

### **327 IAC 5-22-13 Certification; reciprocity; provisional certificate**

**Authority:** IC 13-14-8; IC 13-18-11-13

**Affected:** IC 13-18-11-9

Sec. 13. (a) The commissioner shall issue a certificate designating competency in the appropriate certified operator's classification to each person who makes proper application if the applicant meets the necessary requirements of education and experience and has successfully completed a class appropriate examination. Upon successful completion of examination according to section 11 of this rule, the commissioner shall issue a certificate in the wastewater treatment operator classification for which the applicant was examined.

(b) The commissioner may issue a certificate by reciprocity as outlined in IC 13-18-11-9 if the following conditions are met:

- (1) A person seeking reciprocal certification submits an application for such a certificate that includes the following:
  - (A) Proof of current certification.
  - (B) Classification of the applicant.
- (2) A person from another state seeking a certificate by reciprocity earns the number of continuing education contact hours for future renewal periods in the time period required by section 15 of this rule though no continuing education contact hours shall be required at the time of conferring the reciprocal certification.

(c) The commissioner may issue a provisional wastewater treatment operator's certificate if the following occur:

- (1) The governing body or owner of a wastewater treatment plant submits a written request specifying a reason necessitating the provisional certification, including one (1) of the following:

(A) To fill a vacancy created by death.

(B) Resignation of the certified operator in responsible charge.

(C) Extended illness of the certified operator in responsible charge.

(2) The written request required by subdivision (1) provides the name, education, and experience of the person for whom the provisional certificate is requested.

(3) The provisional certificate nominee named under subdivision (2) submits, simultaneously with the request submitted under subdivision (1), an application as required by section 11(b) of this rule requesting examination and certification.

(4) The provisional certificate nominee named under subdivision (2) is eligible for the next scheduled wastewater certification examination.

(d) A provisional certificate shall be:

- (1) issued by the commissioner in the form of a letter that specifies the conditions of the certification; and
- (2) valid for the shorter of the following lengths of time:

(A) The period between the date of application and the end of the thirty (30) day grading period following the next examination that is available to the provisional certificate nominee.

(B) One (1) year.

*(Water Pollution Control Board; 327 IAC 5-22-13; filed Nov 20, 2000, 4:07 p.m.: 24 IR 969)*

### **327 IAC 5-22-14 Certificates and certification cards; renewal; duplicates**

**Authority:** IC 13-14-8; IC 13-18-11-4; IC 13-18-11-13

**Affected:** IC 13-18-11-6

Sec. 14. (a) A wastewater treatment operator's certificate shall:

- (1) be issued after an applicant's successful completion of the classification appropriate examination;
- (2) specify the month and year that the applicant qualified and the issuance date of the certificate;
- (3) be permanent in nature but will be effective only when validated by a current certification card; and
- (4) not be valid if obtained through fraud, deceit, or the submission of inaccurate data on the examination application.

(b) A certificate, issued on the basis of the applicant's having been in responsible charge of a wastewater treatment plant prior to July 1, 1968, shall remain valid until one (1) of the following occurs:

- (1) A change in the classification of the wastewater treatment plant for one (1) of the following reasons:
  - (A) Increased capacity.

- (B) An increase in population served.
  - (C) A basic change in the method of wastewater treatment.
  - (D) Other change in conditions which requires a more difficult operation.
- (2) The operator is no longer in direct responsible charge.
- (c) A wastewater treatment certified operator must:
- (1) provide permanent and visible display of his or her certificate at the wastewater treatment plant office; and
  - (2) obtain a duplicate certificate to display in the office of each wastewater treatment plant supervised, if the certified operator supervises more than one (1) wastewater treatment plant.
- (d) A certification card shall:
- (1) be issued for a time period of no more than twenty-four (24) months; and
  - (2) expire on the last day of June nearest the end of the biennial period following the certification card issuance.
- (e) A wastewater treatment certified operator needing a replacement or duplicate certificate must submit a written request to the commissioner, including the following information:
- (1) The class of wastewater treatment operator.
  - (2) The name and classification of the wastewater treatment plant to be operated.
  - (3) The date of issuance of the original certificate, if known.
  - (4) The certificate number.
- (f) The commissioner shall accomplish the following:
- (1) Issue a renewal notification to each certified wastewater treatment plant operator stating the following:
    - (A) The expiration date of the certified operator's certification card.
    - (B) The amount of fee required for certification card renewal.
  - (2) Mail certification card renewal notifications:
    - (A) at least thirty (30) days prior to expiration of the certification card; and
    - (B) to the last known address filed with the commissioner.
  - (3) Renew a certification card if:
    - (A) the continuing education requirements of section 15 of this rule are met;
    - (B) a renewal fee is submitted on or before the first day of July of the biennial period for which a certification card is to be issued; and
    - (C) the notice is signed and returned by the certified operator to the commissioner.
  - (4) Reinstate certification if the certified operator:
    - (A) submits payment of any arrearage of fees;

- (B) submits payment of the current renewal fee;
- (C) fulfills arrearage of continuing education credit requirements; and
- (D) is current in meeting continuing education credit requirements.

(5) Deny renewal of a certification card that is not renewed within the time limit established in this section and IC 13-18-11-6(c) unless the operator pursues reinstatement through reapplication and reexamination following the requirements of section 11 of this rule.

*(Water Pollution Control Board; 327 IAC 5-22-14; filed Nov 20, 2000, 4:07 p.m.: 24 IR 970)*

### **327 IAC 5-22-15 Continuing education requirements**

**Authority:** IC 13-14-8; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 15. (a) A certified wastewater treatment operator shall fulfill continuing education requirements in amounts specified in Table 15(b) during each two (2) year period following the issuance of the certification card and prior to having that certification card renewed.

(b) Continuing education credits required for certification card renewal in the following classifications of certified wastewater treatment operators are listed in the following table:

Table 15(b)	
Certified Wastewater Treatment Operator Classification	Continuing Education Credits Required for Renewal
Class O.I.T.	No continuing education required; certification card not renewable
Class I-SP	5 contact hours
Class A-SO	5 contact hours
Class I	10 contact hours
Class A	10 contact hours
Class II	10 contact hours
Class B	10 contact hours
Class III	20 contact hours
Class C	20 contact hours
Class IV	20 contact hours
Class D	20 contact hours

(c) Continuing education credits required according to Table 15(b) must adhere to a distribution of subject matter according to the following:

- (1) A minimum of seventy percent (70%) of the required continuing education contact hours shall be obtained from the technical category of approved continuing education courses.
- (2) No more than thirty percent (30%) of the required

continuing education contact hours shall be obtained from nontechnical subject matter of approved continuing education courses.

(d) A person having a valid certification card in more than one (1) wastewater treatment operator classification:

(1) may be given duplicate continuing education credit from a single approved continuing education course for each wastewater treatment certification to which the subject matter is applicable; and

(2) must obtain the greatest number of continuing education contact hours required by the various certifications held within the shared one (1) year of certification overlap in order not to be required to obtain continuing education for each certificate held.

*(Water Pollution Control Board; 327 IAC 5-22-15; filed Nov 20, 2000, 4:07 p.m.: 24 IR 970)*

### **327 IAC 5-22-16 Continuing education credit; criteria for approval**

**Authority:** IC 13-14-8; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 16. (a) Continuing education contact hour credit shall be given only for completed course work that has been approved by the commissioner according to the following:

(1) A training provider has submitted an application and received continuing education course approval from the commissioner prior to publicly offering a wastewater treatment continuing education course. The application must:

(A) be submitted on a form approved by the commissioner;

(B) be submitted no less than sixty (60) days before the first date when the course is conducted;

(C) be accompanied by a written course outline or brochure; and

(D) contain:

(i) name, address, and telephone number of a course sponsor, training provider, or other contact person;

(ii) name of course;

(iii) specific topics that are included in the course presentations;

(iv) amount of time devoted to each topic;

(v) instructor's name and qualifications, including:

(AA) educational background;

(BB) professional experience; and

(CC) current professional affiliation; and

(vi) dates and locations where the course will be offered.

(2) The wastewater treatment continuing education course meets the following requirements:

(A) The course deals with one (1) or more of the following as determined by the commissioner:

(i) Technical matters related directly to wastewater treatment.

(ii) General matters related to the responsibilities of a certified operator.

(B) Each instructor and speaker is qualified by academic work or practical experience to teach the proposed wastewater treatment continuing education course.

(b) A certified wastewater treatment operator may petition the commissioner for approval of a wastewater treatment continuing education course if the following procedures are met:

(1) An application of petition is submitted to the commissioner prior to or within thirty (30) days of course completion.

(2) The application must contain the information required by subsection (a)(1)(A), (a)(1)(C), and (a)(1)(D).

(3) The certified operator must supply written proof of attendance at the wastewater treatment continuing education course within thirty (30) days following course completion.

(c) A certified operator who is an instructor or speaker at a wastewater treatment continuing education course shall be credited the same number of contact hours as the students of the course.

(d) Continuing education contact hours earned in another state, whether that state has reciprocity with Indiana for the purpose of transferring a certificate of wastewater treatment operator competency, may be eligible for credit if the following are met:

(1) The commissioner is provided the information required by subsection (a)(1)(A), (a)(1)(C), and (a)(1)(D) for the course work from which the contact hours were earned.

(2) The information required by subdivision (1) is submitted to the commissioner.

(3) The commissioner approves the course work from which the contact hours were earned.

(e) Partial credit shall not be given to instructors, speakers, or students participating in less than a complete wastewater treatment continuing education course. *(Water Pollution Control Board; 327 IAC 5-22-16; filed Nov 20, 2000, 4:07 p.m.: 24 IR 971)*

### **327 IAC 5-22-17 Continuing education credit; training provider responsibilities**

**Authority:** IC 13-14-8; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 17. (a) A training provider shall generate records of each wastewater treatment continuing education course conducted that include the following:

- (1) The date of the wastewater treatment continuing education course.
- (2) The name of each person in attendance at the wastewater treatment continuing education course.
- (3) The length of time of the course.
- (4) The instructor's name.
- (5) The course content.
- (6) The name of the organization sponsoring the course.

(b) Records required by subsection (a) shall be maintained for a five (5) year period following the presentation of each wastewater treatment continuing education course.

(c) A training provider must submit the information required by subsection (a) to the commissioner according to the following:

- (1) On a form approved by the commissioner.
- (2) Within thirty (30) days of the conclusion of the wastewater treatment continuing education course.

(*Water Pollution Control Board; 327 IAC 5-22-17; filed Nov 20, 2000, 4:07 p.m.: 24 IR 972*)

### **327 IAC 5-22-18 Suspension or revocation of certification**

**Authority:** IC 13-14-8; IC 13-18-11-13  
**Affected:** IC 4-21.5; IC 13-18-11-8

Sec. 18. The commissioner may suspend or revoke the wastewater treatment certificate of a wastewater treatment certified operator, following a hearing pursuant to IC 4-21.5, if it is found that the certified operator has violated any provision of IC 13-18-11-8. (*Water Pollution Control Board; 327 IAC 5-22-18; filed Nov 20, 2000, 4:07 p.m.: 24 IR 972*)

## **ARTICLE 6. LAND APPLICATION OF SLUDGE AND WASTEWATER**

- Rule 1. General Provisions (*Repealed*)
- Rule 2. Land Application Permits; Generally
- Rule 3. Sludge Application (*Repealed*)
- Rule 4. Wastewater Application (*Repealed*)
- Rule 5. Management Plans for Land Application (*Repealed*)
- Rule 6. Municipal Sludge Give-Away Programs (*Repealed*)
- Rule 7. Departmental Acquisition of Information (*Repealed*)

### **Rule 1. General Provisions (*Repealed*)**

(*Repealed by Water Pollution Control Board; filed May 15, 1998, 10:20 a.m.: 21 IR 3813*)

### **Rule 2. Land Application Permits; Generally**

327 IAC 6-2-1 Permit requirement (*Repealed*)

- 327 IAC 6-2-2 Applications for permits (*Repealed*)
- 327 IAC 6-2-3 Terms of land application permits (*Repealed*)
- 327 IAC 6-2-4 Discharges from land application operations (*Repealed*)
- 327 IAC 6-2-5 Toxic pollutants (*Repealed*)
- 327 IAC 6-2-6 Monitoring and analysis; records and reports (*Repealed*)
- 327 IAC 6-2-7 Duration of permits (*Repealed*)
- 327 IAC 6-2-8 Transferability (*Repealed*)
- 327 IAC 6-2-9 Fees (*Repealed*)

### **327 IAC 6-2-1 Permit requirement (*Repealed*)**

Sec. 1. (*Repealed by Water Pollution Control Board; filed May 15, 1998, 10:20 a.m.: 21 IR 3813*)

### **327 IAC 6-2-2 Applications for permits (*Repealed*)**

Sec. 2. (*Repealed by Water Pollution Control Board; filed May 15, 1998, 10:20 a.m.: 21 IR 3813*)

### **327 IAC 6-2-3 Terms of land application permits (*Repealed*)**

Sec. 3. (*Repealed by Water Pollution Control Board; filed May 15, 1998, 10:20 a.m.: 21 IR 3813*)

### **327 IAC 6-2-4 Discharges from land application operations (*Repealed*)**

Sec. 4. (*Repealed by Water Pollution Control Board; filed May 15, 1998, 10:20 a.m.: 21 IR 3813*)

### **327 IAC 6-2-5 Toxic pollutants (*Repealed*)**

Sec. 5. (*Repealed by Water Pollution Control Board; filed May 15, 1998, 10:20 a.m.: 21 IR 3813*)

### **327 IAC 6-2-6 Monitoring and analysis; records and reports (*Repealed*)**

Sec. 6. (*Repealed by Water Pollution Control Board; filed May 15, 1998, 10:20 a.m.: 21 IR 3813*)

### **327 IAC 6-2-7 Duration of permits (*Repealed*)**

Sec. 7. (*Repealed by Water Pollution Control Board; filed May 15, 1998, 10:20 a.m.: 21 IR 3813*)

### **327 IAC 6-2-8 Transferability (*Repealed*)**

Sec. 8. (*Repealed by Water Pollution Control Board; filed May 15, 1998, 10:20 a.m.: 21 IR 3813*)

**327 IAC 6-2-9 Fees (Repealed)**

Sec. 9. (Repealed by Water Pollution Control Board; filed Sep 3, 1996, 3:00 p.m.: 20 IR 12)

**Rule 3. Sludge Application (Repealed)**

(Repealed by Water Pollution Control Board; filed May 15, 1998, 10:20 a.m.: 21 IR 3813)

**Rule 4. Wastewater Application (Repealed)**

(Repealed by Water Pollution Control Board; filed May 15, 1998, 10:20 a.m.: 21 IR 3813)

**Rule 5. Management Plans for Land Application (Repealed)**

(Repealed by Water Pollution Control Board; filed May 15, 1998, 10:20 a.m.: 21 IR 3813)

**Rule 6. Municipal Sludge Give-Away Programs (Repealed)**

(Repealed by Water Pollution Control Board; filed May 15, 1998, 10:20 a.m.: 21 IR 3813)

**Rule 7. Departmental Acquisition of Information (Repealed)**

(Repealed by Water Pollution Control Board; filed May 15, 1998, 10:20 a.m.: 21 IR 3813)

**ARTICLE 6.1. LAND APPLICATION OF BIOSOLID, INDUSTRIAL WASTE PRODUCT, AND POLLUTANT-BEARING WATER**

- Rule 1. General Provisions
- Rule 2. Definitions
- Rule 3. Land Application; General Requirements
- Rule 4. Land Application of Biosolid and Industrial Waste Product
- Rule 5. Marketing and Distribution Permit
- Rule 6. Notifications
- Rule 7. Land Application of Pollutant-Bearing Water
- Rule 7.5. Small Quantity Generators–Pollutant-Bearing Water
- Rule 8. Storage Structures

**Rule 1. General Provisions**

- 327 IAC 6.1-1-1 Purpose
- 327 IAC 6.1-1-2 Federal references
- 327 IAC 6.1-1-3 Applicability
- 327 IAC 6.1-1-4 Enforcement
- 327 IAC 6.1-1-5 Penalties
- 327 IAC 6.1-1-6 Access to information
- 327 IAC 6.1-1-7 Relationship to other rules

**327 IAC 6.1-1-1 Purpose**

**Authority:** IC 13-14-8-1; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-18-3

Sec. 1. (a) The purpose of this article is to establish procedures, requirements, and standards to implement IC 13-18-3 regarding land application and related activities. This article is being promulgated for the purpose of protecting and enhancing the quality of Indiana's environment and protecting the public health, safety, and well-being of its citizens.

(b) This article regulates the disposal of any biosolid, contaminant that is an industrial waste product, or pollutant-bearing water by application upon or incorporation into the soil. This article establishes standards for the following:

- (1) General requirements.
- (2) Site requirements.
- (3) Pollutant limits.
- (4) Pathogen reduction requirements.
- (5) Vector attraction reduction requirements.
- (6) Monitoring and analysis requirements.
- (7) Record keeping requirements.
- (8) Reporting requirements.
- (9) Storage.

(c) Unless specified in the incorporated by reference documents incorporated in this article, the version of documents referenced in the incorporated by reference documents is the latest version that is in effect on the date of the latest adoption of the incorporated by reference documents into this article. (Water Pollution Control Board; 327 IAC 6.1-1-1; filed May 15, 1998, 10:20 a.m.: 21 IR 3776; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3596)

**327 IAC 6.1-1-2 Federal references**

**Authority:** IC 13-14-8-1; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-18; IC 13-22

Sec. 2. Unless otherwise indicated, the following references to federal regulations apply throughout this article:

- (1) "Clean Water Act" is the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., as amended by the federal Water Quality Act of 1987, P.L. 100-4.
- (2) "Environmental Protection Agency" or "EPA" is the United States Environmental Protection Agency.
- (3) "Resource Conservation and Recovery Act" or "RCRA" is the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, by the Hazardous and Solid Waste Amendments of 1984, as amended, 42 U.S.C. §6901, et seq.

(Water Pollution Control Board; 327 IAC 6.1-1-2; filed May 15, 1998, 10:20 a.m.: 21 IR 3776; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)

**327 IAC 6.1-1-3 Applicability**

**Authority:** IC 13-14-8-1; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-18; IC 13-22

Sec. 3. (a) This article applies to the following:

- (1) Any person who prepares biosolid, industrial waste product, or pollutant-bearing water for land application or marketing and distribution in Indiana.
- (2) Any person who applies biosolid, industrial waste product, or pollutant-bearing water to the land in Indiana.
- (3) Biosolid, industrial waste product, or pollutant-bearing water applied to the land in Indiana.
- (4) Biosolid or industrial waste product that is marketed or distributed for use as soil or soil amendment.
- (5) Land in Indiana where biosolid, industrial waste product, or pollutant-bearing water is land applied.
- (6) Storage structures for any biosolid, industrial waste product, or pollutant-bearing water regulated under this article.

(b) A land application permit is required for the disposal in Indiana of any biosolid, industrial waste product, or pollutant-bearing water by application upon or incorporation into the soil except for the exclusions listed under subsection (c).

(c) This article does not apply to the following:

- (1) Materials that are:
  - (A) Animal manures.
  - (B) Not a solid waste as defined under 329 IAC 10-2-174.
  - (C) Disposed of under 327 IAC 7.1, 329 IAC 10-3-1(1), or 329 IAC 10-3-1(3) through 329 IAC 10-3-1(15).
  - (D) Determined to be hazardous waste in accordance with 329 IAC 3.1.
  - (E) Grit, including sand, gravel, cinders, or other materials with a high specific gravity.
  - (F) Screenings, including relatively large materials such as rags, generated during preliminary treatment of domestic sewage in a treatment works.
- (2) Persons who apply biosolid or industrial waste product that is prepared or generated by another person in accordance with the terms of a marketing and distribution program permitted under 327 IAC 6.1-5.
- (3) Land that receives only biosolid or industrial waste product prepared or generated in accordance with the terms of a marketing and distribution program permitted under 327 IAC 6.1-5.
- (4) The selection of biosolid, industrial waste product, or pollutant-bearing water use or disposal practice. The determination of the manner in which biosolid, industrial waste product, or pollutant-bearing water is used

or disposed is a local determination.

(5) Industrial storm water that:

- (A) does not exceed the pollutant limits in Table 10 in 327 IAC 6.1-7-1(d); or
- (B) is regulated by:
  - (i) a storm water pollution prevention plan under 327 IAC 15-6; or
  - (ii) an NPDES permit under 327 IAC 5-4-6.

(6) Lawn irrigation at wastewater treatment facilities that:

- (A) have a valid NPDES permit under 327 IAC 5;
- (B) are not in violation of any discharge limits;
- (C) have restricted public access to the area to be irrigated; and
- (D) disinfect the domestic wastewater prior to application to the facility grounds.

*(Water Pollution Control Board; 327 IAC 6.1-1-3; filed May 15, 1998, 10:20 a.m.: 21 IR 3776; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3596)*

**327 IAC 6.1-1-4 Enforcement**

**Authority:** IC 13-14-8-1; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-14-2-6; IC 13-18; IC 13-30-3

Sec. 4. No person shall conduct activities for which requirements are established in this article except in accordance with such requirements. The enforcement of this article shall be in accordance with IC 13-30-3 or IC 13-14-2-6. *(Water Pollution Control Board; 327 IAC 6.1-1-4; filed May 15, 1998, 10:20 a.m.: 21 IR 3777; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3597)*

**327 IAC 6.1-1-5 Penalties**

**Authority:** IC 13-14-8-1; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-14-12; IC 13-18; IC 13-30

Sec. 5. Penalties for violations of this article are provided for at:

- (1) IC 13-30-4;
- (2) IC 13-30-5; and
- (3) IC 13-30-6.

*(Water Pollution Control Board; 327 IAC 6.1-1-5; filed May 15, 1998, 10:20 a.m.: 21 IR 3777; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3597)*

**327 IAC 6.1-1-6 Access to information**

**Authority:** IC 13-14-4-3; IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-14

Sec. 6. (a) In accordance with this article, any person who is required to comply with such regulatory provisions shall:

- (1) establish and maintain records;
- (2) make reports;
- (3) install, use, and maintain monitoring equipment or methods;
- (4) sample effluents or other material; and
- (5) provide other information applicable to this article.

(b) The commissioner, or the commissioner's authorized representative, upon presentation of proper credentials:

- (1) shall have a right of entry to, upon, or through any premises, public or private, in which records, reports, monitoring or treatment equipment or methods, samples, or other information required to be maintained or provided under subsection (a) are located; and
- (2) shall, during normal business hours inspect for purposes of assessing compliance with this article, have access to:
  - (A) view or copy any records;
  - (B) inspect any equipment or method; and
  - (C) sample any effluent or other material required under subsection (a).

*(Water Pollution Control Board; 327 IAC 6.1-1-6; filed May 15, 1998, 10:20 a.m.: 21 IR 3777; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 6.1-1-7 Relationship to other rules**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 7. (a) Disposal of a biosolid or industrial waste product in a municipal solid waste landfill unit, as defined in 329 IAC 10-2-117, that complies with the requirements in 329 IAC 10 and the municipal solid waste landfill permit, constitutes compliance with Section 405(d) of the Clean Water Act.

(b) Any person who prepares or applies a biosolid, industrial waste product, or pollutant-bearing water that is applied to land in a delineated wellhead protection area shall comply with any applicable requirements under 327 IAC 8-4.1. *(Water Pollution Control Board; 327 IAC 6.1-1-7; filed May 15, 1998, 10:20 a.m.: 21 IR 3777; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3597)*

### **Rule 2. Definitions**

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 327 IAC 6.1-2-32 "Land application" defined  
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 327 IAC 6.1-2-40 "Permit" defined  
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327 IAC 6.1-2-54 “Stockpiling” defined  
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 327 IAC 6.1-2-55.5 “Surface waters” defined  
 327 IAC 6.1-2-56 “Total solids” defined  
 327 IAC 6.1-2-57 “Treatment works” defined  
 327 IAC 6.1-2-58 “Unstabilized solids” defined  
 327 IAC 6.1-2-59 “Vector attraction” defined  
 327 IAC 6.1-2-60 “Volatile solids” defined  
 327 IAC 6.1-2-61 “Waters of the state” defined (*Repealed*)  
 327 IAC 6.1-2-62 “Wetlands” defined  
 327 IAC 6.1-2-63 “Windrow composting” defined  
 327 IAC 6.1-2-64 “Within-vessel” defined

### 327 IAC 6.1-2-1 Applicability

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18

Sec. 1. In addition to the definitions contained in IC 13-11-2 and 327 IAC 1, the definitions in this rule apply throughout this article. (*Water Pollution Control Board; 327 IAC 6.1-2-1; filed May 15, 1998, 10:20 a.m.: 21 IR 3777; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 6.1-2-2 “Aerobic digestion” or “aerobic process” defined

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 2. “Aerobic digestion” or “aerobic process” means the biochemical decomposition of organic matter into carbon dioxide and water by micro-organisms in the presence of oxygen. (*Water Pollution Control Board; 327 IAC 6.1-2-2; filed May 15, 1998, 10:20 a.m.: 21 IR 3778; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 6.1-2-3 “Agricultural land” defined

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 3. “Agricultural land” means land used for:

- (1) production of a food crop;
- (2) production of a feed crop;
- (3) production of a fiber crop;
- (4) production of trees for harvest; or
- (5) pasture for animals.

(*Water Pollution Control Board; 327 IAC 6.1-2-3; filed May 15, 1998, 10:20 a.m.: 21 IR 3778; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3597*)

### 327 IAC 6.1-2-4 “Anaerobic digestion” or “anaerobic process” defined

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 4. “Anaerobic digestion” or “anaerobic process” means the biochemical decomposition of organic matter into methane gas and carbon dioxide by micro-organisms in the absence of oxygen. (*Water Pollution Control Board; 327 IAC 6.1-2-4; filed May 15, 1998, 10:20 a.m.: 21 IR 3778; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 6.1-2-5 “Annual pollutant loading rate” defined

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 5. “Annual pollutant loading rate” means the maximum amount of an inorganic pollutant that can be applied to any land during a three hundred sixty-five (365) day period. (*Water Pollution Control Board; 327 IAC 6.1-2-5; filed May 15, 1998, 10:20 a.m.: 21 IR 3778; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 6.1-2-6 “Beneficial use” defined

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 6. “Beneficial use” means the use of a solid waste for fertilizing or soil conditioning properties to:

- (1) provide nutrients for growing plants or crops;
- (2) increase organic matter;
- (3) provide pH adjustment capabilities; or
- (4) provide other benefits to the soil or crops as shown to the satisfaction of the commissioner through an approved research or demonstration project under 327 IAC 6.1-4-19.

(*Water Pollution Control Board; 327 IAC 6.1-2-6; filed May 15, 1998, 10:20 a.m.: 21 IR 3778; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3597*)

### 327 IAC 6.1-2-6.5 “BOD” defined

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 6.5. “BOD” means the quantity of oxygen used in the biochemical oxidation of organic matter in a specified time under specified conditions and is a standard test

used in assessing wastewater strength. (*Water Pollution Control Board; 327 IAC 6.1-2-6.5; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3598*)

### **327 IAC 6.1-2-7 “Biosolid” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 7. (a) “Biosolid” means solid, semisolid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Examples of biosolid include, but are not limited to, the following:

(1) Scum or solids removed in primary, secondary, or advanced wastewater treatment processes.

(2) A material derived from biosolid.

(3) An industrial waste product that contains domestic sewage or material under subdivision (1) or (2).

(b) Biosolid does not include ash generated during the firing of biosolid in a biosolid incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works. (*Water Pollution Control Board; 327 IAC 6.1-2-7; filed May 15, 1998, 10:20 a.m.: 21 IR 3778; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3598*)

### **327 IAC 6.1-2-7.5 “Biosolid containing an industrial waste product” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 7.5. “Biosolid containing an industrial waste product” means a biosolid where one (1) of the following conditions apply:

(1) The industrial waste product contains domestic sewage or material described under section 7(a)(1) or 7(a)(2) of this rule and is generated from one (1) source or generator.

(2) The industrial waste product contains blends of industrial waste products and biosolids from different sources or generators.

(*Water Pollution Control Board; 327 IAC 6.1-2-7.5; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3598*)

### **327 IAC 6.1-2-8 “Cation exchange capacity” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 8. “Cation exchange capacity” means the sum of

exchangeable cations a soil can absorb expressed in milliequivalents per one hundred (100) grams of soil as determined by sampling the soil to the depth of cultivation, sludge waste product placement, or wastewater placement, whichever is greater, and analyzing by the summation method for distinctly acid soils\* or the sodium acetate method for neutral, calcareous, or saline soils\*.

\*The summation method for distinctly acid soils and the sodium acetate method for neutral, calcareous, or saline soils can be found in “Methods of Soil Analysis, Agronomy Monograph No. 9.”, C.A. Black, ed., pp. 149-157, 1982, available from American Society of Agronomy, Soil Science of America, Inc., 677 South Segoe Road, Madison, Wisconsin 53711. This method is also available for copying at the Indiana Department of Environmental Management, Office of Land Quality, 100 North Senate Avenue, Room 1154, Indianapolis, Indiana 46204. (*Water Pollution Control Board; 327 IAC 6.1-2-8; filed May 15, 1998, 10:20 a.m.: 21 IR 3778; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3598*)

### **327 IAC 6.1-2-9 “Cereal grain” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 9. “Cereal grain” means food crops such as wheat, oats, rye, and barley. (*Water Pollution Control Board; 327 IAC 6.1-2-9; filed May 15, 1998, 10:20 a.m.: 21 IR 3779; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-2-10 “Commissioner” defined (Repealed)**

Sec. 10. (*Repealed by Water Pollution Control Board; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3632*)

### **327 IAC 6.1-2-10.1 “Contaminant” defined**

**Authority:** IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-42; IC 13-12-3-1; IC 13-13-1-1; IC 13-15; IC 13-18; IC 13-30-2-1

Sec. 10.1. “Contaminant” means a contaminant as defined in IC 13-11-2-42. (*Water Pollution Control Board; 327 IAC 6.1-2-10.1; filed May 15, 1998, 10:20 a.m.: 21 IR 3779; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-2-11 “Cumulative pollutant loading rate” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 11. "Cumulative pollutant loading rate" means the maximum amount of an inorganic pollutant that can be applied to any land. (*Water Pollution Control Board; 327 IAC 6.1-2-11; filed May 15, 1998, 10:20 a.m.: 21 IR 3779; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 6.1-2-12 "Department" defined (*Repealed*)

Sec. 12. (*Repealed by Water Pollution Control Board; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3632*)

### 327 IAC 6.1-2-13 "Dewatered" defined

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 13. "Dewatered" means the removal of free liquid from the biosolid or industrial waste product as determined by Method 9095\* (Paint Filter Liquids Test).

\*Method 9095 may be found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846 [Third Edition, November 1986, as amended by Updates 1 (July 1992), 2 (September 1994), 2A (August 1993), and 2B (January 1995)], available from U.S. EPA. This method is also available for copying at the Indiana Department of Environmental Management, Office of Land Quality, 100 North Senate Avenue, Room 1154, Indianapolis, Indiana 46204. (*Water Pollution Control Board; 327 IAC 6.1-2-13; filed May 15, 1998, 10:20 a.m.: 21 IR 3779; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3598*)

### 327 IAC 6.1-2-14 "Discharge" defined

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 14. "Discharge" means any addition of any pollutant, or combination of pollutants, into any surface waters or ground water from a point source such as any discernible, confined, and discrete conveyance, including the following:

- (1) Pipe.
- (2) Channel.
- (3) Tunnel.
- (4) Conduit.
- (5) Well.
- (6) Discrete fissure.

- (7) Container.
- (8) Rolling stock.
- (9) Vessel.
- (10) Other floating craft from which pollutants are or may be discharged.

The term does not include return flow from irrigated agriculture or agricultural storm water. (*Water Pollution Control Board; 327 IAC 6.1-2-14; filed May 15, 1998, 10:20 a.m.: 21 IR 3779; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3599*)

### 327 IAC 6.1-2-15 "Disinfection" defined

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 15. "Disinfection" means the:

- (1) destruction;
- (2) neutralization;
- (3) inhibition;
- (4) inactivation; or
- (5) removal;

of pathogenic micro-organisms by chemical, physical, or biological means. (*Water Pollution Control Board; 327 IAC 6.1-2-15; filed May 15, 1998, 10:20 a.m.: 21 IR 3779; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 6.1-2-16 "Domestic sewage" defined

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 16. "Domestic sewage" means waste and wastewater from humans or household operations that is discharged to or otherwise enters a treatment works. (*Water Pollution Control Board; 327 IAC 6.1-2-16; filed May 15, 1998, 10:20 a.m.: 21 IR 3779; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 6.1-2-17 "Domestic wastewater" defined

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 17. "Domestic wastewater" means the treated effluent from a treatment works that treats domestic sewage. (*Water Pollution Control Board; 327 IAC 6.1-2-17; filed May 15, 1998, 10:20 a.m.: 21 IR 3780; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 6.1-2-18 "Dry weight basis" defined

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 18. “Dry weight basis” means the calculation of weight based on having been dried at one hundred three degrees Celsius (103°C) to one hundred five degrees Celsius (105°C) until reaching a constant weight. (*Water Pollution Control Board; 327 IAC 6.1-2-18; filed May 15, 1998, 10:20 a.m.: 21 IR 3780; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-2-19 “Feed crops” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 19. “Feed crops” means crops produced primarily for consumption by animals. (*Water Pollution Control Board; 327 IAC 6.1-2-19; filed May 15, 1998, 10:20 a.m.: 21 IR 3780; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-2-20 “Fiber crops” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 20. “Fiber crops” means crops produced primarily for fiber, such as flax and cotton. (*Water Pollution Control Board; 327 IAC 6.1-2-20; filed May 15, 1998, 10:20 a.m.: 21 IR 3780; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-2-20.5 “Fixed volume” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 20.5. “Fixed volume” means the amount of biosolid or industrial waste product prepared for land application where the volume does not change by either adding to or removing any of the biosolid or industrial waste product between sampling and land application. Examples of fixed volume include, but are not limited to, the following:

- (1) Dewatered biosolid or industrial waste product stockpiled.
- (2) Liquid biosolid or industrial waste product contained in a storage structure.

(*Water Pollution Control Board; 327 IAC 6.1-2-20.5; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3599*)

### **327 IAC 6.1-2-21 “Flood plain” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 21. “Flood plain” means land that is subject to

flooding as determined by the United States Department of Agriculture (USDA) Natural Resources Conservation Service. (*Water Pollution Control Board; 327 IAC 6.1-2-21; filed May 15, 1998, 10:20 a.m.: 21 IR 3780; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-2-22 “Food crops” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 22. “Food crops” means crops grown for:

- (1) human consumption; or
- (2) feed crops for animals whose products are consumed by humans.

These crops include fruits, vegetables, grains, and tobacco. (*Water Pollution Control Board; 327 IAC 6.1-2-22; filed May 15, 1998, 10:20 a.m.: 21 IR 3780; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-2-23 “Forest” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 23. “Forest” means a tract of land with a dense growth of trees, plants, and underbrush. (*Water Pollution Control Board; 327 IAC 6.1-2-23; filed May 15, 1998, 10:20 a.m.: 21 IR 3780; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-2-24 “Freeboard” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 24. “Freeboard” means the distance between the top of the stored biosolid, industrial waste product, or pollutant-bearing water and the overflow level of the storage structure. (*Water Pollution Control Board; 327 IAC 6.1-2-24; filed May 15, 1998, 10:20 a.m.: 21 IR 3780; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-2-25 “Ground water” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 25. “Ground water” means water below the land surface in the saturated zone. (*Water Pollution Control Board; 327 IAC 6.1-2-25; filed May 15, 1998, 10:20 a.m.: 21 IR 3780; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-26 “Hazardous waste” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 26. “Hazardous waste” means waste regulated under 329 IAC 3.1. (*Water Pollution Control Board; 327 IAC 6.1-2-26; filed May 15, 1998, 10:20 a.m.: 21 IR 3780; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-27 “Incorporated into the soil” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 27. “Incorporated into the soil” means the mixing of the biosolid or industrial waste product with the surface soil using standard agricultural practices such as tillage. (*Water Pollution Control Board; 327 IAC 6.1-2-27; filed May 15, 1998, 10:20 a.m.: 21 IR 3780; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-28 “Industrial process wastewater” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 28. “Industrial process wastewater” means liquid waste that is:

- (1) generated by industrial or commercial facilities;
- (2) does not contain domestic sewage; and
- (3) contains less than one percent (1%) total solids.

(*Water Pollution Control Board; 327 IAC 6.1-2-28; filed May 15, 1998, 10:20 a.m.: 21 IR 3781; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3599*)

**327 IAC 6.1-2-29 “Industrial storm water” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 29. “Industrial storm water” means storm water that is regulated under 327 IAC 15-6. (*Water Pollution Control Board; 327 IAC 6.1-2-29; filed May 15, 1998, 10:20 a.m.: 21 IR 3781; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-30 “Industrial waste product” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 30. “Industrial waste product” means the following:

- (1) Material that meets the following criteria:

(A) Is a solid waste as defined under 329 IAC 10-2-174.

(B) Does not include material from any processes listed in 329 IAC 10-3-1.

(C) Is used for a beneficial use as defined under section 6 of this rule.

(D) Contains one percent (1%) or greater total solids.

- (2) Solid waste that is not considered biosolid or pollutant-bearing water under this article.

(*Water Pollution Control Board; 327 IAC 6.1-2-30; filed May 15, 1998, 10:20 a.m.: 21 IR 3781; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3599*)

**327 IAC 6.1-2-31 “Injection” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 31. “Injection” means the direct, uniform placement of biosolid, industrial waste product, or pollutant-bearing water beneath the surface of the soil using equipment specifically for this purpose. (*Water Pollution Control Board; 327 IAC 6.1-2-31; filed May 15, 1998, 10:20 a.m.: 21 IR 3781; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-31.5 “Lagoon” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 31.5. “Lagoon” means a type of storage structure that is constructed wholly or partially below the original grade of the earth surface. A steel tank that is installed partially below ground is not a lagoon but a storage structure under 327 IAC 6.1-8. (*Water Pollution Control Board; 327 IAC 6.1-2-31.5; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3599*)

**327 IAC 6.1-2-32 “Land application” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 32. “Land application” means the beneficial use of a biosolid, industrial waste product, or pollutant-bearing water by:

- (1) spraying or spreading onto the land surface;
- (2) injection below the land surface; or

(3) incorporation into the soil.  
(*Water Pollution Control Board; 327 IAC 6.1-2-32; filed May 15, 1998, 10:20 a.m.: 21 IR 3781; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-33 “Land application operation” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 33. “Land application operation” means an operation in which biosolid, industrial waste product, or pollutant-bearing water prepared or generated by a person is disposed of by land application. (*Water Pollution Control Board; 327 IAC 6.1-2-33; filed May 15, 1998, 10:20 a.m.: 21 IR 3781; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-34 “Land with a high potential for public exposure” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 34. (a) “Land with a high potential for public exposure” means land that:

- (1) does not have restricted access;
- (2) is easily accessible to the public; or
- (3) is used by the public during normal work or recreational activities.

(b) Examples include, but are not limited to, the following:

- (1) Public parks and forests.
- (2) Athletic fields.
- (3) Cemeteries.
- (4) Agricultural land that is:
  - (A) used for growing food crops; and
  - (B) open to the public for any period of time.
- (5) Plant nurseries.
- (6) Turf farms.
- (7) Golf courses.
- (8) Strip mine reclamation areas located in a populated area or accessible to the public.
- (9) Industrial sites located in a populated area or accessible to the public.
- (10) Construction sites located in a populated area or accessible to the public.
- (11) Other sites that the commissioner may consider to have a high potential for public exposure based on any of the following:
  - (A) Existing public roads.
  - (B) Population density.
  - (C) Recreational opportunity.

(D) Infrastructure development.

(E) Level of management of property.

(*Water Pollution Control Board; 327 IAC 6.1-2-34; filed May 15, 1998, 10:20 a.m.: 21 IR 3781; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-35 “Land with a low potential for public exposure” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 35. (a) “Land with a low potential for public exposure” means land that:

- (1) has restricted access;
- (2) is inaccessible to the public; or
- (3) is not used by the public during normal work or recreational activities.

(b) Examples include, but are not limited to, the following:

- (1) Agricultural land, except land in section 34(b)(4) of this rule.
- (2) Forest not included in section 34(b)(1) of this rule.
- (3) Solid waste land disposal facilities as defined in 329 IAC 10-2-176.
- (4) Strip mines not located in a populated area or accessible to the public.
- (5) Industrial sites not located in a populated area or accessible to the public.
- (6) Construction sites not located in a populated area or accessible to the public.
- (7) Other sites that the commissioner may consider to have a low potential for public exposure based on any of the following:
  - (A) Existing public roads.
  - (B) Population density.
  - (C) Recreational opportunity.
  - (D) Infrastructure development.
  - (E) Level of management of property.

(*Water Pollution Control Board; 327 IAC 6.1-2-35; filed May 15, 1998, 10:20 a.m.: 21 IR 3782; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3600*)

**327 IAC 6.1-2-36 “Mean cell residence time” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 36. “Mean cell residence time” means solids retention time as determined in Chapter 9 of “Control of Pathogens and Vector Attraction in Sewage Sludge”, EPA/625/R-92/013, December 1992. (*Water Pollution*

*Control Board; 327 IAC 6.1-2-36; filed May 15, 1998, 10:20 a.m.: 21 IR 3782; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 6.1-2-37 “Municipal” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 37. “Municipal” means a reference to the following:

- (1) A city.
- (2) A town.
- (3) A county.
- (4) A district.
- (5) An association.
- (6) An intermunicipal agency of two (2) or more of the entities in subdivisions (1) through (5) created by or under state law.
- (7) An Indian tribe.
- (8) An authorized Indian tribal organization having jurisdiction over biosolid, industrial waste product, or pollutant-bearing water management.
- (9) A designated and approved management agency under Section 208 of the Clean Water Act, as amended.
- (10) A special district created under state law, such as:
  - (A) a water district;
  - (B) a sewer district;
  - (C) a solid waste management district;
  - (D) an utility district;
  - (E) a drainage district or similar entity; or
  - (F) an integrated waste management facility as defined in Section 201(e) of the Clean Water Act, as amended, that has as one (1) of its principal responsibilities the treatment, transport, use, or disposal of biosolid, industrial waste product, or pollutant-bearing water.

*(Water Pollution Control Board; 327 IAC 6.1-2-37; filed May 15, 1998, 10:20 a.m.: 21 IR 3782; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 6.1-2-38 “Pasture” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 38. “Pasture” means land on which animals feed directly on vegetation, such as legumes, grasses, grain stubble, or stover. *(Water Pollution Control Board; 327 IAC 6.1-2-38; filed May 15, 1998, 10:20 a.m.: 21 IR 3782; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 6.1-2-39 “Pathogenic organisms” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 39. “Pathogenic organisms” means disease-causing organisms, including the following:

- (1) Certain bacteria.
- (2) Protozoa.
- (3) Viruses.
- (4) Viable helminth ova.
- (5) Fungi.
- (6) Other disease-causing organisms.

*(Water Pollution Control Board; 327 IAC 6.1-2-39; filed May 15, 1998, 10:20 a.m.: 21 IR 3782; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 6.1-2-40 “Permit” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-15; IC 13-18; IC 13-19; IC 13-30-2-1

Sec. 40. “Permit” means the following:

- (1) A permit.
- (2) A determination related to a:
  - (A) permit;
  - (B) license;
  - (C) registration; or
  - (D) certificate.
- (3) Any other type of authorization required before construction or operation that may be issued by the commissioner under IC 13-15, IC 13-18, or IC 13-19.

*(Water Pollution Control Board; 327 IAC 6.1-2-40; filed May 15, 1998, 10:20 a.m.: 21 IR 3782; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 6.1-2-41 “Person” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-158; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 41. “Person” means a person as defined in IC 13-11-2-158(a). *(Water Pollution Control Board; 327 IAC 6.1-2-41; filed May 15, 1998, 10:20 a.m.: 21 IR 3783; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 6.1-2-42 “Person who applies” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 42. “Person who applies” means any person who land applies a biosolid, industrial waste product, or pollutant-bearing water under this article. *(Water Pollu-*

*tion Control Board; 327 IAC 6.1-2-42; filed May 15, 1998, 10:20 a.m.: 21 IR 3783; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3600)*

**327 IAC 6.1-2-43 “Person who prepares” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 43. (a) “Person who prepares” means:

(1) the person who generates any biosolid, industrial waste product, or pollutant-bearing water for application to the land or for marketing and distribution and which is regulated under this article; or  
(2) the person who derives a biosolid, industrial waste product, or pollutant-bearing water for application to the land or for marketing and distribution from other biosolid, industrial waste product, or pollutant-bearing water regulated under this article.

(b) The term includes any person that mixes two (2) or more biosolids, industrial waste products, or pollutant-bearing waters.

(c) The term does not include a hazardous waste generator as regulated by 329 IAC 3.1 or a solid waste generator as defined under 329 IAC 10-2-78. (*Water Pollution Control Board; 327 IAC 6.1-2-43; filed May 15, 1998, 10:20 a.m.: 21 IR 3783; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3600*)

**327 IAC 6.1-2-44 “pH” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 44. “pH” means the logarithm of the reciprocal of the hydrogen ion concentration. (*Water Pollution Control Board; 327 IAC 6.1-2-44; filed May 15, 1998, 10:20 a.m.: 21 IR 3783; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-45 “Pollutant” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 45. “Pollutant” means an organic substance, an inorganic substance, a combination of organic and inorganic substances, or a pathogenic organism that, after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food chain, could, on the basis of information available to the

commissioner, cause:

- (1) death;
- (2) disease;
- (3) behavioral abnormalities;
- (4) cancer;
- (5) genetic mutations;
- (6) physiological malfunctions, including malfunction in:
  - (A) reproduction; or
  - (B) physical deformations in either organisms or offspring of the organisms.

(*Water Pollution Control Board; 327 IAC 6.1-2-45; filed May 15, 1998, 10:20 a.m.: 21 IR 3783; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-46 “Pollutant-bearing water” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 46. “Pollutant-bearing water” means domestic wastewater, industrial process wastewater, or industrial storm water. (*Water Pollution Control Board; 327 IAC 6.1-2-46; filed May 15, 1998, 10:20 a.m.: 21 IR 3783; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-47 “Pollutant limit” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-15; IC 13-18; IC 13-30-2-1

Sec. 47. “Pollutant limit” means any of the following:

- (1) A numerical value that describes the amount of a pollutant allowed per unit amount of biosolid, industrial waste product, or pollutant-bearing water.
- (2) A numerical value that describes the amount of a pollutant that can be applied to a unit area of land.
- (3) A numerical value that describes the volume of a biosolid, industrial waste product, or pollutant-bearing water that can be applied to a unit area of land.

(*Water Pollution Control Board; 327 IAC 6.1-2-47; filed May 15, 1998, 10:20 a.m.: 21 IR 3783; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-48 “Public building” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 48. “Public building” means any publicly or privately owned church, nursing home, hospital, school, or commercial or industrial building. (*Water Pollution Control Board; 327 IAC 6.1-2-48; filed May 15, 1998, 10:20 a.m.: 21 IR 3783; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-49 “Set aside” or “idle” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 49. “Set aside” or “idle” means agricultural land upon which no crop is grown during a crop season. (*Water Pollution Control Board; 327 IAC 6.1-2-49; filed May 15, 1998, 10:20 a.m.: 21 IR 3784; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-50 “Specific oxygen uptake rate” or “SOUR” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 50. “Specific oxygen uptake rate” or “SOUR” means the mass of oxygen consumed per unit time per unit mass of percent total solids, dry weight basis, in the biosolid. (*Water Pollution Control Board; 327 IAC 6.1-2-50; filed May 15, 1998, 10:20 a.m.: 21 IR 3784; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-51 “Staging” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 51. “Staging” means the temporary placement of a dewatered biosolid or industrial waste product in a pile for less than twenty-four (24) hours at the site where the dewatered biosolid or industrial waste product will be land applied. (*Water Pollution Control Board; 327 IAC 6.1-2-51; filed May 15, 1998, 10:20 a.m.: 21 IR 3784; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-52 “State” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 52. “State” means the state of Indiana. (*Water Pollution Control Board; 327 IAC 6.1-2-52; filed May 15, 1998, 10:20 a.m.: 21 IR 3784; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-53 “Static aerated piles” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 53. “Static aerated piles” means piles of biosolid that is aerated using a forced-aeration system installed under the piles to maintain a minimum oxygen level throughout the compost mass. (*Water Pollution Control*

*Board; 327 IAC 6.1-2-53; filed May 15, 1998, 10:20 a.m.: 21 IR 3784; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-54 “Stockpiling” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 54. “Stockpiling” means the temporary placement of a dewatered biosolid or industrial waste product in a pile for more than twenty-four (24) hours but less than six (6) months at the land application site in accordance with an approved management plan. (*Water Pollution Control Board; 327 IAC 6.1-2-54; filed May 15, 1998, 10:20 a.m.: 21 IR 3784; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3600*)

**327 IAC 6.1-2-55 “Storage” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 55. “Storage” means containment of biosolid, industrial waste product, or pollutant-bearing water for a period of two (2) years or less at:

- (1) a treatment plant;
- (2) a generating facility; or
- (3) an approved storage structure.

(*Water Pollution Control Board; 327 IAC 6.1-2-55; filed May 15, 1998, 10:20 a.m.: 21 IR 3784; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3600*)

**327 IAC 6.1-2-55.3 “Surface conduit to a subsurface feature” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 55.3. “Surface conduit to a subsurface feature” means any surface expression of an enhanced pathway to a natural, geologic formation or manmade workings beneath the land surface. A surface conduit may include a sinkhole, slotted tile riser, or catch basin. A subsurface feature may include underground mines, aquifers, or underground streams. (*Water Pollution Control Board; 327 IAC 6.1-2-55.3; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3601*)

**327 IAC 6.1-2-55.5 “Surface waters” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 55.5. "Surface waters" means water present on the surface of the earth, including:

- (1) streams;
- (2) lakes;
- (3) ponds;
- (4) rivers;
- (5) swamps;
- (6) marshes; or
- (7) wetlands.

(*Water Pollution Control Board; 327 IAC 6.1-2-55.5; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3601*)

### **327 IAC 6.1-2-56 "Total solids" defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 56. "Total solids" means the fraction, often expressed as a percentage, of a material that remains in the biosolid or industrial waste product as residue when the biosolid or industrial waste product is dried at one hundred three degrees Celsius (103°C) to one hundred five degrees Celsius (105°C) until reaching a constant weight. (*Water Pollution Control Board; 327 IAC 6.1-2-56; filed May 15, 1998, 10:20 a.m.: 21 IR 3784; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-2-57 "Treatment works" defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 57. "Treatment works" means any device or system used to treat, including recycle and reclaim, either domestic sewage, industrial waste of a liquid nature, or a combination of domestic sewage and industrial waste of a liquid nature. (*Water Pollution Control Board; 327 IAC 6.1-2-57; filed May 15, 1998, 10:20 a.m.: 21 IR 3784; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-2-58 "Unstabilized solids" defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 58. "Unstabilized solids" means the organic materials in biosolid that have not been treated in:

- (1) an aerobic; or
- (2) anaerobic;

treatment process. (*Water Pollution Control Board; 327 IAC 6.1-2-58; filed May 15, 1998, 10:20 a.m.: 21 IR 3784; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-2-59 "Vector attraction" defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 59. "Vector attraction" means the characteristic of biosolid that attracts:

- (1) rodents;
- (2) flies;
- (3) mosquitos; or
- (4) other organisms capable of transporting infectious agents.

(*Water Pollution Control Board; 327 IAC 6.1-2-59; filed May 15, 1998, 10:20 a.m.: 21 IR 3785; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-2-60 "Volatile solids" defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 60. "Volatile solids" means the amount of the percent total solids in biosolid or pollutant-bearing water lost when the biosolid or pollutant-bearing water is combusted at five hundred fifty degrees Celsius (550°C) in the presence of excess oxygen. (*Water Pollution Control Board; 327 IAC 6.1-2-60; filed May 15, 1998, 10:20 a.m.: 21 IR 3785; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-2-61 "Waters of the state" defined (Repealed)**

Sec. 61. (*Repealed by Water Pollution Control Board; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3632*)

### **327 IAC 6.1-2-62 "Wetlands" defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 62. "Wetlands" means those areas that are inundated or saturated by surface water or ground water at a frequency and duration to support and that, under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include the following:

- (1) Swamps.
- (2) Marshes.
- (3) Bogs.
- (4) Similar areas.

(*Water Pollution Control Board; 327 IAC 6.1-2-62; filed May 15, 1998, 10:20 a.m.: 21 IR 3785; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-63 “Windrow composting” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 63. “Windrow composting” means biosolid that is composted in long rows that are aerated by convective air movement and diffusion and turned periodically as required in 327 IAC 6.1-4-14 by mechanical means to expose the organic matter to ambient oxygen. (*Water Pollution Control Board; 327 IAC 6.1-2-63; filed May 15, 1998, 10:20 a.m.: 21 IR 3785; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 6.1-2-64 “Within-vessel” defined**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-12-3-1; IC 13-18; IC 13-30-2-1

Sec. 64. “Within-vessel” means biological stabilization of biosolid under controlled aerobic conditions in a closed vessel or an enclosed structure. (*Water Pollution Control Board; 327 IAC 6.1-2-64; filed May 15, 1998, 10:20 a.m.: 21 IR 3785; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**Rule 3. Land Application; General Requirements**

- 327 IAC 6.1-3-1 Permit applications
- 327 IAC 6.1-3-2 Terms of land application permits
- 327 IAC 6.1-3-3 Discharges from land application operations
- 327 IAC 6.1-3-4 Permit duration and transition requirements
- 327 IAC 6.1-3-5 Transferability
- 327 IAC 6.1-3-6 Additional or more stringent requirements
- 327 IAC 6.1-3-7 Responsibility of person who prepares
- 327 IAC 6.1-3-8 Responsibility of person who prepares by receiving and blending

**327 IAC 6.1-3-1 Permit applications**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-15-7-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-15-7; IC 13-30-6; IC 36-9-30-35

Sec. 1. (a) Permit applications under this article must be submitted on forms and in a format prescribed by the commissioner and include applicable accompanying documentation as described on the forms.

(b) A permit application must be submitted at least one hundred eighty (180) days prior to the proposed commencement of the operation.

(c) A permit application for renewal of an existing permit must be:

- (1) postmarked;
- (2) hand delivered to the office of land quality, Indiana department of environmental management; or
- (3) deposited with a private carrier as shown by the

receipt issued by the carrier, if the application is sent by the private carrier to the address for the department on the application;

at least one hundred eighty (180) days prior to the expiration of the existing permit or the permit will be invalid upon expiration.

(d) A permit may be renewed with new or modified conditions based on the information provided in the renewal application.

(e) The commissioner may:

- (1) deny a permit application or a renewal application; or
- (2) place additional conditions on a permit or renewal permit;

if the commissioner determines that one (1) or more of the criteria in subsection (f) demonstrate the applicant’s inability or unwillingness to manage biosolid, industrial waste product, or pollutant-bearing water under the requirements of this article.

(f) The commissioner may deny or place additional conditions on a permit or renewal permit based on one (1) or more of the following:

- (1) The applicant has been convicted of a crime under IC 13-30-6 or IC 36-9-30-35.
- (2) The commissioner, under IC 13-15-7, has revoked the applicant’s previous permit to operate under:
  - (A) this article; or
  - (B) 327 IAC 6, which was repealed in 1998.
- (3) The applicant has a history of one (1) or more violations of IC 13 or rules promulgated by authority of IC 13.
- (4) The applicant was the subject of one (1) or more administrative or judicial enforcement actions concerning land application under this article or 327 IAC 6, which was repealed in 1998.
- (5) The applicant is the subject of one (1) or more pending administrative or judicial enforcement actions commended under authority of IC 13.

(g) The application for a permit or the issuance of a permit does not:

- (1) convey any property rights of any sort or any exclusive privileges to the applicant or permittee;
- (2) authorize:
  - (A) any injury to any person or private property;
  - (B) invasion of other property rights; or
  - (C) any infringement of federal, state, or local laws or regulations; or
- (3) preempt any duty to comply with other federal, state, or local requirements.

(h) Proposals for equivalent methods for meeting requirements may be submitted for approval to the commissioner with the permit application for the following:

- (1) Site restrictions in 327 IAC 6.1-4-6 and 327 IAC 6.1-7-5.

(2) The storage requirement in 327 IAC 6.1-4-8(a) and 327 IAC 6.1-7-9(a).

(3) Loading rates in 327 IAC 6.1-4-10 and 327 IAC 6.1-7-10(a)(1) through 327 IAC 6.1-7-10(a)(3).

(4) Vector attraction reduction requirements in 327 IAC 6.1-4-15.

(5) Monitoring and analysis requirements in 327 IAC 6.1-4-16 and 327 IAC 6.1-7-2 through 327 IAC 6.1-7-4.

(i) A management plan must be submitted to the commissioner with the permit application if any of the following are applicable:

(1) The management practice in 327 IAC 6.1-4-7(l) or 327 IAC 6.1-7-6(j).

(2) The stockpiling requirement in 327 IAC 6.1-4-8(e).

(3) Marketing and distribution in 327 IAC 6.1-5.

*(Water Pollution Control Board; 327 IAC 6.1-3-1; filed May 15, 1998, 10:20 a.m.: 21 IR 3785; errata filed May 20, 1998, 1:15 p.m.: 21 IR 3939; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3601)*

### **327 IAC 6.1-3-2 Terms of land application permits**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77

Sec. 2. (a) A land application permit shall conform with the following:

(1) The technical criteria and other requirements of the applicable sections of this article.

(2) If applicable, approved equivalent methods for meeting requirements under section 1(h) of this rule that are developed by the applicant for the proposed operation.

(3) If applicable under section 1(i) of this rule, an approved management plan specifically developed by the applicant for the proposed operation.

(b) The commissioner may include conditions to ensure compliance with this article. *(Water Pollution Control Board; 327 IAC 6.1-3-2; filed May 15, 1998, 10:20 a.m.: 21 IR 3786; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3602)*

### **327 IAC 6.1-3-3 Discharges from land application operations**

**Authority:** IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 3. There must be no discharge into surface waters or ground water from a land application operation except under a valid National Pollutant Discharge Elimination System (NPDES) permit issued in accordance with 327

IAC 5. *(Water Pollution Control Board; 327 IAC 6.1-3-3; filed May 15, 1998, 10:20 a.m.: 21 IR 3786; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3602)*

### **327 IAC 6.1-3-4 Permit duration and transition requirements**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-15-3

Sec. 4. (a) Except as specifically provided for elsewhere in this article or Indiana statute, permits may be issued by the commissioner for any period of time not to exceed five (5) years as specified by IC 13-15-3.

(b) A permit application for the land application of biosolid, industrial waste product, or pollutant-bearing water submitted after the effective date of this article must comply with applicable sections of this article.

(c) If a person holding a valid permit under this article has made a timely and complete application for a renewal, the existing permit does not expire until a final determination on the application is made by the commissioner. The commissioner may seek injunctive relief with regard to the continuing activity of the permit applicant while the permit application is pending if the continuing activity of the permit applicant constitutes a threat to the environment or the public health, safety, or welfare.

(d) Any permits granted under this article will continue to be in effect under the rules effective at the time the permit was issued until the permit is renewed as required. *(Water Pollution Control Board; 327 IAC 6.1-3-4; filed May 15, 1998, 10:20 a.m.: 21 IR 3786; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3602)*

### **327 IAC 6.1-3-5 Transferability**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-15-7; IC 13-18; IC 13-30-6

Sec. 5. (a) A permit issued under this article may be transferred to another person by a permittee if:

(1) the permittee notifies the commissioner of the proposed transfer at least forty-five (45) days prior to the date of the proposed transfer of the permit; and

(2) a written agreement is submitted to the commissioner containing:

(A) a specific date for transfer of permit responsibilities; and

(B) coverage between the current and the new permittee, including acknowledgment:

(i) that the existing permittee is liable for violations up to that date; and

(ii) that the new permittee is liable for any permit violations after the date of transfer.

(b) The commissioner shall notify within thirty (30) days the current permittee and the proposed new permittee if the commissioner determines that:

- (1) the permit is to be modified prior to transfer; or
- (2) the current permit is to be terminated and a new permit application is to be filed by the proposed new permittee.

(c) Permits issued under 327 IAC 6, which was repealed in 1998, are not transferrable. (*Water Pollution Control Board; 327 IAC 6.1-3-5; filed May 15, 1998, 10:20 a.m.: 21 IR 3787; errata filed May 20, 1998, 1:15 p.m.: 21 IR 3939; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-3-6 Additional or more stringent requirements**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-12-3-1; IC 13-14-3-1; IC 13-14-3-2; IC 13-18-3-1

Sec. 6. (a) Nothing in this section precludes a political subdivision that has the appropriate authority from imposing requirements for the use or disposal of a biosolid, industrial waste product, or pollutant-bearing water more stringent than the requirements in this article or from imposing additional requirements for the use or disposal of a biosolid, industrial waste product, or pollutant-bearing water.

(b) This article and any permit issued under this article must not be less stringent than 40 CFR 503 requirements. (*Water Pollution Control Board; 327 IAC 6.1-3-6; filed May 15, 1998, 10:20 a.m.: 21 IR 3787; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-3-7 Responsibility of person who prepares**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2

Sec. 7. (a) A person who prepares a biosolid, industrial waste product, or pollutant-bearing water is legally responsible under this article for:

- (1) the handling, transporting, storage, marketing and distribution, and land application of the biosolid, industrial waste product, or pollutant-bearing water; and
- (2) compliance with the land application permit issued under this article and all applicable provisions of this article.

(b) In the event a person who prepares a biosolid, industrial waste product, or pollutant-bearing water

provides a biosolid, industrial waste product, or pollutant-bearing water to another person for final land application or for marketing and distribution, and that receiving person alters the characteristics of the biosolid, industrial waste product, or pollutant-bearing water:

- (1) the person who receives and alters the biosolid, industrial waste product, or pollutant-bearing water is considered the person who prepares the biosolid, industrial waste product, or pollutant-bearing water; and
- (2) assumes responsibility for compliance with this article and IC 13-30-2.

(c) In the event a person who prepares a biosolid, industrial waste product, or pollutant-bearing water:

- (1) provides a biosolid, industrial waste product, or pollutant-bearing water to another person for final land application or for marketing and distribution; and
- (2) that receiving person alters the characteristics of the biosolid, industrial waste product, or pollutant-bearing water;

the person who first prepares the biosolid, industrial waste product, or pollutant-bearing water shall submit the information as required by 327 IAC 6.1-4-18(a) to the commissioner stating the name of the facility that received the biosolid, industrial waste product, or pollutant-bearing water.

(d) If the person who prepares a biosolid, industrial waste product, or pollutant-bearing water provides a biosolid, industrial waste product, or pollutant-bearing water to another person for final land application or for marketing and distribution and that receiving person does not alter the characteristics of the biosolid, industrial waste product, or pollutant-bearing water, then the person who applies or markets and distributes the biosolid, industrial waste product, or pollutant-bearing water is also responsible for complying with this article and IC 13-30-2.

(e) When a person who prepares a biosolid or industrial waste product provides the biosolid or industrial waste product to:

- (1) another person who prepares the biosolid or industrial waste product; or
- (2) to a person who applies the biosolid or industrial waste product to the land or for marketing and distribution;

the person who provides the biosolid or industrial waste product shall provide the person who receives the biosolid or industrial waste product information to comply with this article and IC 13-30-2. (*Water Pollution Control Board; 327 IAC 6.1-3-7; filed May 15, 1998, 10:20 a.m.: 21 IR 3787; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3603*)

### 327 IAC 6.1-3-8 Responsibility of person who prepares by receiving and blending

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30

Sec. 8. (a) If the person who prepares the biosolid or industrial waste product for land application blends either or both biosolid or industrial waste products, but does not treat the blend, the following apply:

(1) Biosolid or industrial waste product received for blending must not exceed the limits in Table 1 under 327 IAC 6.1-4-9(a).

(2) Dewatered biosolid received for blending must meet either:

(A) Class A under 327 IAC 6.1-4-13(a); or

(B) Class B under 327 IAC 6.1-4-13(c);

standards.

(3) Blends that contain a biosolid and an industrial waste product must at the time of land application meet either:

(A) Class A under 327 IAC 6.1-4-13(a); or

(B) Class B under 327 IAC 6.1-4-13(c);

standards.

(4) Liquid biosolid must meet one (1) of the following:

(A) When received for blending, meet either:

(i) Class A under 327 IAC 6.1-4-13(a); or

(ii) Class B under 327 IAC 6.1-4-13(c);

standards.

(B) At the time of land application, meet either:

(i) Class A under 327 IAC 6.1-4-13(a); or

(ii) Class B under 327 IAC 6.1-4-13(c);

standards.

(b) If the person who prepares the biosolid or industrial waste product for land application blends either or both biosolid or industrial waste products, but treats the blend, the following apply:

(1) Biosolid or industrial waste product received for blending must not exceed the limits in Table 1 under 327 IAC 6.1-4-9(a).

(2) Blends that contain a biosolid and industrial waste products must at the time of land application meet either:

(A) Class A under 327 IAC 6.1-4-13(a); or

(B) Class B under 327 IAC 6.1-4-13(c).

*(Water Pollution Control Board; 327 IAC 6.1-3-8; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3603)*

#### Rule 4. Land Application of Biosolid and Industrial Waste Product

327 IAC 6.1-4-1 Applicability

327 IAC 6.1-4-2 Biosolid and industrial waste product characterization

327 IAC 6.1-4-3 General requirements

327 IAC 6.1-4-4 Site-specific permits

327 IAC 6.1-4-5 Nonsite-specific permits

327 IAC 6.1-4-5.5 Hybrid permits

327 IAC 6.1-4-6 Site restrictions

327 IAC 6.1-4-7 Management practices

327 IAC 6.1-4-8 Storage, stockpiling, and staging of biosolid or industrial waste product

327 IAC 6.1-4-9 Pollutant limits

327 IAC 6.1-4-10 Loading rate limits

327 IAC 6.1-4-11 Land application of paper waste

327 IAC 6.1-4-12 Land application of a biosolid or industrial waste product containing polychlorinated biphenyls (PCBs)

327 IAC 6.1-4-13 Pathogen requirements

327 IAC 6.1-4-14 Pathogen treatment processes

327 IAC 6.1-4-15 Vector attraction reduction requirements

327 IAC 6.1-4-16 Monitoring and analysis

327 IAC 6.1-4-17 Records and record keeping

327 IAC 6.1-4-18 Reports and reporting

327 IAC 6.1-4-19 Research and demonstration projects for biosolid or industrial waste product

327 IAC 6.1-4-20 Alternative uses of biosolid at a domestic sewage treatment works

#### 327 IAC 6.1-4-1 Applicability

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-18-14-1; IC 13-30-2-1

Sec. 1. This rule applies to any person who prepares a biosolid or industrial waste product that:

(1) is land applied; and

(2) meets the criteria set forth in section 4, 5, or 5.5 of this rule.

*(Water Pollution Control Board; 327 IAC 6.1-4-1; filed May 15, 1998, 10:20 a.m.: 21 IR 3788; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3604)*

#### 327 IAC 6.1-4-2 Biosolid and industrial waste product characterization

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 2. (a) Prior to the issuance of a permit for land application under this article, the commissioner shall determine which biosolid or industrial waste product must be evaluated for characteristics of hazardous waste under 40 CFR 261, Subpart C, as incorporated by reference in 329 IAC 3.1.

(b) A biosolid or industrial waste product that is evaluated for hazardous waste characteristics under 40 CFR 261, Subpart C, as incorporated by reference in 329 IAC 3.1, and shows a pollutant concentration that exceeds the limits under 329 IAC 3.1 is prohibited from

being land applied. (*Water Pollution Control Board; 327 IAC 6.1-4-2; filed May 15, 1998, 10:20 a.m.: 21 IR 3788; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 6.1-4-3 General requirements

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-18-14-1; IC 13-30-2-1

Sec. 3. (a) Land application of biosolid or industrial waste product must be conducted under the supervision of:

- (1) a certified wastewater treatment plant operator licensed under 327 IAC 5-22; or
- (2) a person with at least one (1) year of experience in land application management practices and procedures as demonstrated by specific facts contained in a signed affidavit.

The license number or the affidavit must be submitted to the commissioner with the permit application and within thirty (30) days of any change in supervisor of the activity.

(b) Any person who prepares or applies a biosolid or industrial waste product shall ensure that the applicable requirements in this article and the permit are met when the biosolid or industrial waste product is prepared for application to the land or is applied to land.

(c) No person shall apply a biosolid or industrial waste product to any site if any of the cumulative pollutant loading rates in Table 2 in section 9(b) of this rule have been exceeded.

(d) The person who prepares a biosolid or industrial waste product that is applied to any land application site shall:

- (1) provide the person who applies the biosolid or industrial waste product written notification of the application rates necessary to comply with section 4-10 of this rule; and
- (2) provide any person that farms the land with nutrient loadings as determined by information provided by the person who applies the biosolid or industrial waste product.

(e) The person who prepares a biosolid or industrial waste product to be applied to the land shall obtain information needed to comply with the following requirements:

- (1) Based on all available records, if a biosolid, industrial waste product, or pollutant-bearing water has not been applied to the land application site, the cumulative amount for each pollutant listed in Table 2 in section 9(b) of this rule may be applied to the land application site in accordance with Table 2 in section 9(b) of this rule.

(2) If a biosolid, industrial waste product, or pollutant-bearing water has been applied to the land application site and the cumulative amount of each pollutant is known, the cumulative amount shall be used to determine the additional amount of each pollutant that can be applied to the land application site in accordance with Table 2 in section 9(b) of this rule.

(3) If a biosolid, industrial waste product, or pollutant-bearing water has been applied to the land application site and the cumulative amount of each pollutant is not documented, application of any additional biosolid, industrial waste product, or pollutant-bearing water is prohibited.

(f) Before a biosolid, industrial waste product, or pollutant-bearing water is applied to the land, the person who proposes to apply the biosolid, industrial waste product, or pollutant-bearing water shall contact the commissioner to determine if a biosolid, industrial waste product, or pollutant-bearing water has been applied to the land application site based on department records.

(g) The person who applies a biosolid or industrial waste product to the land shall provide the owner or lease holder of the land on which the biosolid or industrial waste product is applied information to comply with the management practices in section 7 of this rule.

(h) Any person who applies a biosolid or industrial waste product that was not generated in Indiana to land in Indiana must:

- (1) be in compliance with IC 13-18-14-1; and
- (2) obtain a permit under section 4, 5, or 5.5 of this rule from the commissioner.

(*Water Pollution Control Board; 327 IAC 6.1-4-3; filed May 15, 1998, 10:20 a.m.: 21 IR 3788; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3604*)

### 327 IAC 6.1-4-4 Site-specific permits

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-15; IC 13-30-2-1

Sec. 4. (a) For a biosolid to qualify under a site-specific permit, the following criteria must be met:

- (1) Either of the pathogen requirements:
  - (A) Class A in section 13(b) of this rule; or
  - (B) Class B in section 13(c) of this rule.
- (2) Compliance with the vector attraction reduction requirements in section 15 of this rule.
- (3) The pollutant limits in Table 1 in section 9(a) of this rule must not be exceeded.

(b) For an industrial waste product to qualify under a site-specific permit, the pollutant limits in Table 1 in section 9(a) of this rule must not be exceeded.

(c) A completed permit application must:

- (1) be submitted to the commissioner on forms and in a format prescribed by the commissioner;
- (2) include analytical data that demonstrates that pollutant concentrations do not exceed the limits in Table 1 in section 9(a) of this rule;
- (3) for a biosolid, provide the documentation of methods of pathogen reduction and vector attraction reduction as required by sections 13 and 15 of this rule; and
- (4) include any other information as may be required by the commissioner to ensure compliance with this article.

(d) A person who prepares a biosolid or industrial waste product that has a site-specific permit shall comply with:

- (1) all permit conditions;
- (2) unless specified otherwise, all requirements under this rule;
- (3) other applicable parts of this article; and
- (4) the submission of monthly reports in accordance with section 18 of this rule.

*(Water Pollution Control Board; 327 IAC 6.1-4-4; filed May 15, 1998, 10:20 a.m.: 21 IR 3789; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3605)*

### **327 IAC 6.1-4-5 Nonsite-specific permits**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 5. (a) For a biosolid to qualify under a nonsite-specific permit, the following criteria must be met:

- (1) Either of the pathogen requirements:
  - (A) Class A in section 13(b) of this rule; or
  - (B) Class B in section 13(c) of this rule.
- (2) Compliance with the vector attraction reduction requirements in section 15 of this rule.
- (3) The pollutant concentrations in Table 3 in section 9(c) of this rule must not be exceeded.

(b) For an industrial waste product to qualify under a nonsite-specific permit, the pollutant concentrations in Table 3 in section 9(c) of this rule must not be exceeded.

(c) A completed permit application must:

- (1) be submitted to the commissioner on forms and in a format prescribed by the commissioner;
- (2) include analytical data that demonstrates that pollutant concentrations do not exceed the limits in Table 3 in section 9(c) of this rule;
- (3) include the names of all counties in which the biosolid or industrial waste product will be applied;
- (4) for biosolid, provide the documentation of methods

of pathogen reduction and vector attraction reduction as required by sections 13 and 15 of this rule; and

- (5) include any other information as may be required by the commissioner to ensure compliance with this article.

(d) A person who prepares a biosolid or industrial waste product and that has a nonsite-specific permit shall:

- (1) comply with all permit conditions;
- (2) unless otherwise specified, comply with this rule;
- (3) only apply to agricultural land;
- (4) not apply a biosolid or industrial waste product within six hundred sixty (660) feet of any residence unless a signed waiver has been received from the owner and, if applicable, tenant of the residence;
- (5) not apply a biosolid or industrial waste product within six hundred sixty (660) feet of any public building or public or nonpublic school building; and
- (6) submit monthly reports in accordance with section 18 of this rule.

(e) Waivers must be obtained from the residence owner and, if applicable, tenant of the residence:

- (1) for each year in which biosolid or industrial waste product is proposed to be applied at distances less than the setback distance in subsection (d)(4); and
- (2) prior to the application of the biosolid or industrial waste product at distances less than the setback distance in subsection (d)(4).

*(Water Pollution Control Board; 327 IAC 6.1-4-5; filed May 15, 1998, 10:20 a.m.: 21 IR 3789; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3605)*

### **327 IAC 6.1-4-5.5 Hybrid permits**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 5.5. (a) A hybrid permit is a type of nonsite-specific permit in which some sites are identified. For a biosolid to qualify under a hybrid permit, the following criteria must be met:

- (1) Either of the pathogen requirements:
  - (A) Class A in section 13(b) of this rule; or
  - (B) Class B in section 13(c) of this rule.
- (2) Compliance with the vector attraction reduction requirements in section 15 of this rule.
- (3) The pollutant concentrations in Table 3 in section 9(c) of this rule must not be exceeded.

(b) For an industrial waste product to qualify under a hybrid permit, the pollutant concentrations in Table 3 in section 9(c) of this rule must not be exceeded.

(c) A completed permit application must:

- (1) be submitted to the commissioner on forms and in a format prescribed by the commissioner;
- (2) include analytical data that demonstrates that pollutant concentrations do not exceed the limits in Table 3 in section 9(c) of this rule;
- (3) include the names of all counties in which the biosolid or industrial waste product will be applied;
- (4) for biosolid, provide the documentation of methods of pathogen reduction and vector attraction reduction as required by sections 13 and 15 of this rule;
- (5) include site-specific information for those sites to be identified in the permit and presented in a format and on forms prescribed by the commissioner; and
- (6) include any other information as may be required by the commissioner to ensure compliance with this article.

(d) A person who prepares a biosolid or industrial waste product and that has a hybrid permit shall comply with the following:

- (1) The site restrictions in section 6 of this rule.
- (2) For nonsite-specific sites:
  - (A) comply with all permit conditions;
  - (B) unless otherwise specified, comply with this rule;
  - (C) only apply the biosolid or industrial waste product to agricultural land;
  - (D) not apply a biosolid or industrial waste product within six hundred sixty (660) feet of any residence unless a signed waiver has been received from the owner and, if applicable, tenant of the residence; and
  - (E) not apply a biosolid or industrial waste product within six hundred sixty (660) feet of any public building or public or nonpublic school building.

- (3) For site-specific sites:
  - (A) comply with all permit conditions; and
  - (B) unless otherwise specified, comply with this rule.
- (4) Submission of monthly reports in accordance with section 18 of this rule.

(e) Waivers must be obtained from the residence owner and, if applicable, tenant of the residence:

- (1) for each year in which biosolid or industrial waste product is proposed to be applied at distances less than the setback distance in subsection (d)(2)(D); and
- (2) prior to the application of the biosolid or industrial waste product at distances less than the setback distance in subsection (d)(2)(D).

*(Water Pollution Control Board; 327 IAC 6.1-4-5.5; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3606)*

**327 IAC 6.1-4-6 Site restrictions**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 6. (a) Land application of a biosolid or industrial waste product must not be conducted within:

Feature	Surface Application	Injection	Incorporation by End of Day
Surface waters or the surface conduit to a subsurface feature	300 feet	33 feet	33 feet
Residence	300 feet	To property line	300 feet
Any well	50 feet	50 feet	50 feet
Potable well or drinking water spring	200 feet	200 feet	200 feet
Any public building or nonpublic school	50 feet from property line	50 feet from property line	50 feet from property line

(b) Waivers must be obtained from the residence owner and, if applicable, tenant of the residence:

- (1) for each year in which biosolid or industrial waste product is proposed to be applied at distances less than the setback distance for a residence in subsection (a); and
- (2) prior to the application of the biosolid or industrial waste product at distances less than the setback distance for a residence in subsection (a).

(c) Land application of a biosolid or industrial waste product must not be conducted on slopes greater than:

	Surface Application	Injection	Incorporation by End of Day
Liquid	6%	18%	6%
Dewatered	12%	NA	18%

(d) Biosolid or industrial waste product must not be applied to land unless there is a minimum depth of twenty (20) inches of soil overlying bedrock.

(e) The soil pH must be 5.5 or greater at the time of land application for the following:

- (1) Biosolid.
- (2) Biosolid containing an industrial waste product with a cadmium concentration of two (2) milligrams per kilogram or less than two (2) milligrams per kilogram.
- (3) Industrial waste product with a cadmium concentration of two (2) milligrams per kilogram or less than two (2) milligrams per kilogram.
- (f) The soil pH must be 6.5 or greater at the time of

land application for the following:

- (1) Industrial waste product with a cadmium concentration greater than two (2) milligrams per kilogram.
- (2) Biosolid containing an industrial waste product with a cadmium concentration greater than two (2) milligrams per kilogram.
- (g) The soil pH value shall be:
  - (1) obtained by sampling the soil to the depth of cultivation or depth of placement of the biosolid or industrial waste product, whichever is greater;
  - (2) analyzed by the electrometric method\*;
  - (3) collected as one (1) representative composite sample per every twenty-five (25) acres or fraction thereof within the application site; and
  - (4) be valid only if the analyses were performed within the last two (2) years of the date of application on the site.

\*The electrometric method may be found in "Methods of Soil Analysis, Agronomy Monograph No. 9.", C.A. Black, ed., American Society of Agronomy, Madison, Wisconsin, pp. 199-209, 1982, available from the American Society of Agronomy, Soil Science of America, Inc., 677 South Segoe Road, Madison, Wisconsin 53711. This method is also available for copying at the Indiana Department of Environmental Management, Office of Land Quality, 100 North Senate Avenue, Room 1154, Indianapolis, Indiana 46204. (*Water Pollution Control Board; 327 IAC 6.1-4-6; filed May 15, 1998, 10:20 a.m.: 21 IR 3790; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3607*)

### 327 IAC 6.1-4-7 Management practices

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1; IC 14-20-1; IC 14-22-34

Sec. 7. (a) Food crops shall not be harvested for fourteen (14) months after application of a biosolid if the harvested part:

- (1) touches the ground where biosolid has been applied; and
- (2) has no harvested parts below the soil surface.
- (b) Food crops shall not be harvested for twenty (20) months after application of a biosolid if:
  - (1) the biosolid remains on the land surface for four (4) months or longer prior to incorporation into the soil; and
  - (2) harvested parts are below the soil surface.
- (c) Food crops shall not be harvested for thirty-eight (38) months after application of biosolid if:
  - (1) the biosolid remains on the land surface for less than four (4) months prior to incorporation into the soil; and

(2) harvested parts are below the soil surface.

(d) Unless subsection (a), (b), or (c) applies, food crops, feed crops, and fiber crops shall not be harvested for thirty (30) days after application of biosolid.

(e) Grazing of animals on land that has received biosolid is prohibited for thirty (30) days after application of the biosolid.

(f) Except for a Class A biosolid under section 13(b) of this rule, turf grown on land where biosolid is applied shall not be harvested for one (1) year after application of the biosolid if the harvested turf is placed on land with a high potential for public exposure.

(g) Except for a Class A biosolid under section 13(b) of this rule, public access to land with a high potential for public exposure shall be restricted for one (1) year after application of biosolid to that land.

(h) Except for a Class A biosolid under section 13(b) of this rule, public access to land with a low potential for public exposure shall be restricted for thirty (30) days after application of biosolid.

(i) A biosolid or industrial waste product shall not be applied to the land:

- (1) if the biosolid or industrial waste product is likely to adversely affect a threatened or endangered species or its designated critical habitat; or
- (2) in violation of IC 14-22-34.

(j) A biosolid or industrial waste product shall not be applied to the land in violation of historic preservation requirements under IC 14-20-1.

(k) Application of biosolid or industrial waste product is prohibited if the moisture holding capacity of the soil is exceeded.

(l) A biosolid or industrial waste product may only be applied to land that is frozen or snow-covered if:

- (1) the biosolid or industrial waste product does not enter surface waters or ground water; and
- (2) a management plan has been submitted and approved by the commissioner including the following:

(A) Setback distances from residences and public buildings, surface waters, wells, and other structures.

(B) Application rates.

(C) Site characteristics, including the following:

(i) Flood plains.

(ii) Water table.

(iii) Slope.

(D) Supervision and operational oversight.

(E) Other relevant information to show that the land application will not violate this article.

(m) A biosolid or industrial waste product may only be applied in a flood plain if the biosolid or industrial waste product:

- (1) is injected or incorporated into the soil by the end of the day of placement in the flood plain; and

(2) does not enter surface waters or ground water.

(n) A biosolid or industrial waste product with a concentration of molybdenum greater than forty (40) milligrams per kilogram is prohibited from being applied to pasture. (*Water Pollution Control Board; 327 IAC 6.1-4-7; filed May 15, 1998, 10:20 a.m.: 21 IR 3790; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3608*)

**327 IAC 6.1-4-8 Storage, stockpiling, and staging of biosolid or industrial waste product**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 8. (a) A minimum of ninety (90) days effective storage capacity is required for storing a biosolid or industrial waste product unless an equivalent method of meeting the requirement is approved by the commissioner.

(b) Except for lagoons under 327 IAC 6.1-8, any storage structures, such as pits or tanks, which are subject to volume fluctuations due to precipitation events, must have a minimum of one (1) foot of free-board at all times.

(c) Storage structures for the storage of biosolid or industrial waste product must comply with 327 IAC 6.1-8.

(d) A fixed volume of biosolid or industrial waste product for land application may be stored in any storage structure for no more than two (2) years.

(e) Stockpiling of a biosolid or industrial waste product at a land application site must be handled in accordance with an approved management plan, including the following:

- (1) Setback distances from residences and public buildings, surface waters, wells, and other structures.
- (2) Site characteristics, including the following:
  - (A) Flood plains.
  - (B) Water table.
  - (C) Slope.
- (3) Handling practices, including the following:
  - (A) Length of time the biosolid or industrial waste product will be stockpiled.
  - (B) Run-off control measures.
  - (C) Berm construction.
- (4) Nuisance control measures.
- (5) Other applicable information.

(f) Staging of a biosolid or industrial waste product for less than twenty-four (24) hours must be handled in accordance with the following:

- (1) The biosolid or industrial waste product must be dewatered.
- (2) The permittee shall conduct the land application operation in such a manner that staging of dewatered

biosolid or industrial waste product is minimized.

(3) The amount of biosolid or industrial waste product staged must not exceed the maximum amount that can be applied to that land application site within twenty-four (24) hours of placement at the land application site in accordance with this rule or the permit.

(4) Staging of dewatered biosolid or industrial waste product is prohibited:

- (A) within three hundred (300) feet of any surface waters or surface inlet to a subsurface drainage system;
- (B) within six hundred sixty (660) feet of any residence unless a signed waiver has been received from the owner and, if applicable, tenant of the residence;
- (C) within two hundred (200) feet of any potable water supply well or drinking water spring;
- (D) on any area with a slope greater than two percent (2%); and
- (E) on any area located in the flood plain unless applied by the end of same day it is staged.

(g) Waivers must be obtained from the residence owner and, if applicable, tenant of the residence for each year in which biosolid or industrial waste product is proposed to be staged at distances less than the setback distance in subsection (f)(4)(B).

(h) In addition to the requirements in subsection (f), the following requirements apply to staging of a biosolid or industrial waste product for more than twenty-four (24) hours due to unforeseen circumstances, such as an extreme weather event or equipment failure:

- (1) Except under subdivision (2), the biosolid or industrial waste product must be completely covered by a tarp or plastic sheet.
- (2) If not covered in accordance with subdivision (1), the biosolid or industrial waste product must be applied to the land application site or returned to an approved storage site within forty-eight (48) hours of placement at the staging location.
- (3) The person who prepares a biosolid or industrial waste product shall submit written notification within one (1) week to the commissioner that includes the following information:
  - (A) The date the biosolid or industrial waste product was placed at the land application site.
  - (B) The reason the biosolid or industrial waste product could not be applied within twenty-four (24) hours of staging.
  - (C) The date the biosolid or industrial waste product was applied to the land application site or returned to an approved storage site.

(*Water Pollution Control Board; 327 IAC 6.1-4-8; filed May 15, 1998, 10:20 a.m.: 21 IR 3791; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3609*)

**327 IAC 6.1-4-9 Pollutant limits**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 9. (a) Table 1 in this subsection lists ceiling concentrations of metal pollutants for a biosolid or industrial waste product that is land applied. A biosolid or industrial waste product must not be applied to land if the concentration of pollutants in the biosolid or industrial waste product exceeds any of the ceiling concentration limits established in the following:

Pollutant	Ceiling Concentration (milligrams per kilogram) <sup>1</sup>
Arsenic	75
Cadmium	85
Copper	4,300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
Selenium	100
Zinc	7,500

<sup>1</sup>Dry weight basis

(b) Table 2 in this subsection lists the cumulative pollutant loading rates for sites on which a biosolid or industrial waste product is applied:

Pollutant	Cumulative Pollutant Loading Rates (pounds per acre)
Arsenic	36
Cadmium	34 <sup>1</sup>
Copper	1,338
Lead	267
Mercury	15
Molybdenum	not applicable
Nickel	374
Selenium	89
Zinc	2,499

<sup>1</sup>This number is for biosolid only. The cumulative pollutant loading rate for cadmium from an industrial waste product or a biosolid containing an industrial waste product is four and one-half (4.5) pounds per acre for a soil cation exchange capacity of less than 5; nine (9) pounds per acre if the soil cation exchange capacity is between 5 and 15; and eighteen (18) pounds per acre if the soil cation exchange capacity is greater than 15.

(c) Table 3 in this subsection lists the pollutant concentrations for biosolid or industrial waste product to be

applied to the land in accordance with a nonsite-specific permit under section 5 of this rule, a hybrid permit under section 5.5 of this rule, or a marketing and distribution program permit under 327 IAC 6.1-5:

Pollutant	Pollutant Concentrations (milligrams per kilogram) <sup>1</sup>
Arsenic	41
Cadmium	39
Copper	1,500
Lead	300
Mercury	17
Molybdenum	75
Nickel	420
Selenium	100
Zinc	2,800

<sup>1</sup>Dry weight basis

(d) Table 4 in this subsection lists the maximum annual pollutant loading rates for sites where biosolid or industrial waste product is land applied:

Pollutant	Annual Pollutant Loading Rate (pounds per acre per 365 day period)
Arsenic	1.8
Cadmium	0.45
Copper	66.0
Lead	13.4
Mercury	0.7
Molybdenum	not applicable
Nickel	18.7
Selenium	4.4
Zinc	124.9

(e) Table 4.5 in this subsection lists the maximum detection limits to be achieved for all analysis of industrial waste products and biosolid that have total solids of one percent (1%) or greater:

Arsenic	2
Cadmium	10
Lead	10
Mercury	2
Molybdenum	10
Nickel	10
Selenium	2

(f) A permitted biosolid or industrial waste product that exceeds any pollutant ceiling concentrations in Table 1 in subsection (a) must not be applied to the land unless the commissioner approves the results of the following analyses prior to initial application:

- (1) The person who prepares a biosolid or industrial waste product shall take at least four (4) representative samples of the biosolid or industrial waste product to be applied to analyze for any metal concentration in Table 1 in subsection (a) that has been exceeded.
- (2) For a biosolid or industrial waste product that is receiving additional biosolid or industrial waste product, the four (4) samples must be taken:
- (A) within a thirty (30) day period; and
  - (B) at least two (2) days apart.
- (3) For a fixed volume of a biosolid or industrial waste product that is not receiving additional biosolid or industrial waste product, the four (4) samples must be taken within a thirty (30) day period.
- (4) The analysis for each pollutant in all four (4) samples must be less than the comparable pollutant ceiling concentration in Table 1 in subsection (a).
- (g) Under a nonsite-specific or hybrid permit, the person who prepares a biosolid or industrial waste product that exceeds any concentration of a metal listed in Table 3 in subsection (c) shall do either of the following:
- (1) Within ninety (90) days of first receiving knowledge of the exceeded limit, the person who prepares a biosolid or industrial waste product shall apply for a site-specific permit for land application of the biosolid or industrial waste product. The biosolid or industrial waste product must be applied under a site-specific permit.
  - (2) Provide the following analysis within forty-five (45) days of first receiving knowledge of the exceeded limit for approval by the commissioner:
    - (A) The person who prepares a biosolid or industrial waste product shall take at least four (4) representative samples of the biosolid or industrial waste product to be applied to analyze for any metal concentration in Table 3 in subsection (c) that has been exceeded.
    - (B) For biosolid or industrial waste product that is not a fixed volume, the four (4) samples must be taken:
      - (i) within a thirty (30) day period; and
      - (ii) at least two (2) days apart.
    - (C) For a fixed volume of biosolid or industrial waste product, the four (4) samples must be taken within a thirty (30) day period.
    - (D) The average of the four (4) samples for each pollutant must be less than the comparable pollutant concentrations in Table 3 in subsection (c).
    - (E) If the average of the four (4) samples for each pollutant exceeds the comparable pollutant concentrations in Table 3 in subsection (c), the person who prepares a biosolid or industrial waste product shall

apply for a site-specific permit within sixty (60) days of receiving the results of the analysis in this subdivision.

(h) A person who prepares a biosolid or industrial waste product and that intends to reapply for a nonsite-specific or hybrid permit shall complete the following for approval by the commissioner:

- (1) The person who prepares a biosolid or industrial waste product shall take at least eight (8) representative samples of the biosolid or industrial waste product to be applied to analyze for any metal concentration in Table 3 in subsection (c) that has been exceeded.
- (2) The samples must be taken:
  - (A) within a twelve (12) month period; and
  - (B) at least thirty (30) days apart.
- (3) All pollutant concentrations in all eight (8) samples must have pollutant concentrations less than the comparable pollutant concentrations in Table 3 in subsection (c).

*(Water Pollution Control Board; 327 IAC 6.1-4-9; filed May 15, 1998, 10:20 a.m.: 21 IR 3792; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3610)*

### **327 IAC 6.1-4-10 Loading rate limits**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 10. (a) Maximum crop and annual loading rates are determined for a biosolid or industrial waste products to be applied on the basis of the following parameters:

(1) Crop application rates, based on plant available nitrogen (PAN) loadings using the appropriate formulas in subsection (b), shall not exceed either of the following:

(A) PAN loading rates for crop production in Table 5 as follows:

Crop	Pounds of PAN Per Acre <sup>1</sup>
Corn	200
Soybeans	100
Hay, pasture	100
Cereal grain	100
Set aside/idle	50

<sup>1</sup>An equivalent method of meeting the nutrient management requirement may be submitted to the commissioner for approval for alternative nutrient loading rates that provide equivalent or greater protection to the environment and public health.

(B) The nitrogen removal rate for the proposed crop to be grown on the land application site adjusted to

account for application of fertilizers, manure, and the presence of residual available nitrogen in the soil from previous applications of a biosolid, industrial waste product, or pollutant-bearing water.

(2) Annual loading rates of a biosolid or industrial waste product must not result in any of the annual pollutant loading rates in Table 4 in section 9(d) of this rule being exceeded. The following formula for annual loading rate calculation applies to this article and must be used to calculate the amount of biosolid or industrial waste product to be applied per acre per three hundred sixty-five (365) day period:

$$ALR = \frac{APLR}{C \times 0.002}$$

Where: ALR = Annual loading rate in dry tons per acre per three hundred sixty-five (365) day period (dry, short ton of biosolid or industrial waste product/acre/year).

APLR = Annual pollutant loading rate in pounds per acre per three hundred sixty-five (365) day period (pounds/acre/year).

C = Pollutant concentration in milligrams per kilogram of total solids (mg of pollutant/kg of biosolid or industrial waste product dry weight).

(3) Phosphorus loading requirements may be included as a permit condition if the commissioner determines it is necessary for protection of public health or the environment.

(b) The following formulas for PAN loading calculations apply to this article and must be used to calculate the amount of PAN in the biosolid or industrial waste product and the residual available nitrogen at the application site; all calculations are based on a percent dry weight basis:

(1) %Total N = %Total Kjeldahl N + %Nitrate N

(2) %Organic N = %Total N - (% Ammonia N + %Nitrate N)

(3) Pounds Organic N per dry ton of industrial waste product or biosolid, except anaerobically digested biosolid, available during year of application = %Organic N × 6

(4) Pounds Organic N per dry ton of anaerobically digested biosolid available during year of application = %Organic N × 4

(5) Pounds of Ammonia N per dry ton = % Ammonia N × 20

(6) Pounds of Nitrate N per dry ton = %Nitrate N × 20

(7) Pounds PAN per dry ton = Pounds of Organic N per dry ton + Pounds of Ammonia N per dry ton + Pounds of Nitrate N per dry ton

(8) Residual nitrogen from past biosolid or industrial waste product applications:

(A) Pounds of residual N from industrial waste product or biosolid, except anaerobically digested biosolid, available one (1) year after application = %Organic N × 3 × dry tons applied per acre

(B) Pounds of residual N from anaerobically digested biosolid available one (1) year after application = %Organic N × 2 × dry tons applied per acre

(C) Pounds of residual N from industrial waste product or biosolid, except anaerobically digested biosolid, available two (2) years after application = %Organic N × 1.6 × dry tons applied per acre

(D) Pounds of residual N from anaerobically digested biosolid available two (2) years after application = %Organic N × dry tons applied per acre

(E) Pounds of residual N from industrial waste product or biosolid, except anaerobically digested biosolid, available three (3) years after application = %Organic N × 0.8 × dry tons applied per acre

(F) Pounds of residual N from anaerobically digested biosolid available three (3) years after application = %Organic N × 0.5 × dry tons applied per acre

Where: N = Nitrogen.

(Water Pollution Control Board; 327 IAC 6.1-4-10; filed May 15, 1998, 10:20 a.m.: 21 IR 3794; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3612)

### 327 IAC 6.1-4-11 Land application of paper waste

Authority: IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

Affected: IC 13-11-2-77; IC 13-30-2-1

Sec. 11. (a) Any person who is applying for a permit to land apply paper waste shall analyze the paper waste using EPA Method 1613 B\* to determine the total toxic equivalency factor (TEF) for tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) and tetrachlorodibenzo-p-furan (2,3,7,8-TCDF) where:

Total TEF = 2,3,7,8-TCDD + 0.1(2,3,7,8-TCDF)

(b) Rather than conduct a new analysis under subsection (a), a person who prepares a biosolid or industrial waste product and that applies for a permit renewal to land apply paper waste may submit results of an analysis for 2,3,7,8-TCDD and 2,3,7,8-TCDF by EPA Method 1613 B\* that is up to one (1) year old if the applicant also provides a signed statement that:

(1) the analysis is representative of the paper waste currently being produced; and

(2) no significant manufacturing or waste treatment process changes have been made.

(c) Land application of any paper waste with a total

toxic equivalency factor for 2,3,7,8-TCDD and 2,3,7,8-TCDF that is greater than or equal to seventy-five (75) parts per trillion is prohibited.

(d) Land application of any paper waste with a total toxic equivalency factor for 2,3,7,8-TCDD and 2,3,7,8-TCDF that is less than seventy-five (75) parts per trillion must be in accordance with applicable permit conditions.

(e) For purposes of this section, paper waste means a solid waste generated in the production or recycling of paper or paper-like products.

\*Method 1613 B may be found in EPA 821-B-94-005, October 1994, available from the Water Resource Center, Mail Code RC 4100, 401 M Street, S.W., Washington, D.C. 20460, (202) 260-7786. This method is also available for copying at the Indiana Department of Environmental Management, Office of Land Quality, 100 North Senate Avenue, Room 1154, Indianapolis, Indiana 46204. (*Water Pollution Control Board; 327 IAC 6.1-4-11; filed May 15, 1998, 10:20 a.m.: 21 IR 3795; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3613*)

### **327 IAC 6.1-4-12 Land application of a biosolid or industrial waste product containing polychlorinated biphenyls (PCBs)**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77

Sec. 12. Land application of a biosolid or industrial waste product containing concentrations of polychlorinated biphenyls at two (2) milligrams per kilogram or greater on a dry weight basis is prohibited. (*Water Pollution Control Board; 327 IAC 6.1-4-12; filed May 15, 1998, 10:20 a.m.: 21 IR 3795; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-4-13 Pathogen requirements**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 13. (a) This section contains the requirements for a biosolid to be classified either Class A or Class B with respect to pathogens.

(b) To be categorized as Class A, a biosolid must meet or exceed the following requirements:

- (1) The pathogen requirements in subdivision (2) must be met either prior to, or at the same time as, the vector attraction reduction requirements in section 15(b)(1) through 15(b)(5), 15(b)(9), and 15(b)(10) of this rule.
- (2) The requirements in one (1) of the following alternatives:

(A) For Class A, Alternative 1, except for composting, the following:

(i) The density of fecal coliform in the biosolid, as determined by Part 9221 E\* or Part 9222 D\*, must be less than one thousand (1,000) most probable number (MPN) per gram of total solids.

(ii) The temperature of the biosolid that is used or disposed must be maintained at a specific value for a period of time as applicable in the following:

(AA) When the percent total solids of the biosolid is seven percent (7%) or higher, the temperature of the biosolid must be fifty (50) degrees Celsius or higher; the time period must be twenty (20) minutes or longer; and the temperature and time period must be determined using Equation 1 as follows, except when small particles of biosolid are heated by either warmed gases or an immiscible liquid:

Equation 1:

$$D = \frac{131,700,000}{10^{0.14000t}}$$

Where: D = Time in days.

t = Temperature in degrees Celsius.

(BB) When the percent total solids of the biosolid is seven percent (7%) or higher and small particles of biosolid are heated by either warmed gases or an immiscible liquid, the temperature of the biosolid must be fifty (50) degrees Celsius or higher; the time period must be fifteen (15) seconds or longer; and the temperature and time period must be determined using Equation 1 in subitem (AA).

(CC) When the percent total solids of the biosolid is less than seven percent (7%) and the time period is at least fifteen (15) seconds, but less than thirty (30) minutes, the temperature and time period must be determined using Equation 1 in subitem (AA).

(DD) When the percent total solids of the biosolid is less than seven percent (7%), the temperature of the biosolid is fifty (50) degrees Celsius or higher; and the time period is thirty (30) minutes or longer, the temperature and time period must be determined using Equation 2 as follows:

Equation 2:

$$D = \frac{50,070,000}{10^{0.14000t}}$$

Where: D = Time in days.

t = Temperature in degrees Celsius.

(B) For Class A, Alternative 2, the following:

(i) The density of fecal coliform in the biosolid, as determined by Part 9221 E\* or Part 9222 D\*, must be less than one thousand (1,000) MPN per gram of total solids.

(ii) The pH of the biosolid must be raised to above 12 and shall remain above 12 for seventy-two (72) hours.

(iii) The temperature of the biosolid must be above fifty-two (52) degrees Celsius for twelve (12) hours or longer during the period that the pH of the biosolid is above 12.

(iv) At the end of the seventy-two (72) hour period during which the pH of the biosolid is above 12, the biosolid must be air dried to achieve a percent total solids in the biosolid greater than fifty percent (50%).

(C) For Class A, Alternative 3, the following:

(i) The density of fecal coliform in the biosolid, as determined by Part 9221 E\* or Part 9222 D\*, must be less than one thousand (1,000) MPN per gram of total solids.

(ii) Regarding enteric viruses, the following:

(AA) The biosolid must be analyzed prior to pathogen treatment to determine whether the biosolid contains enteric viruses using ASTM Designation: D 4994-89\*.

(BB) When the density of enteric viruses in the biosolid prior to pathogen treatment is less than one (1) plaque-forming unit (PFU) per four (4) grams of total solids the biosolid is Class A with respect to enteric viruses until the next monitoring required by section 16 of this rule for the biosolid.

(CC) When the density of enteric viruses in the biosolid prior to pathogen treatment is equal to or greater than one (1) PFU per four (4) grams of total solids the biosolid is Class A with respect to enteric viruses when the density of enteric viruses in the biosolid after pathogen treatment is less than one (1) PFU per four (4) grams of total solids and when the values or ranges of values for the operating parameters for the pathogen treatment process that produces the biosolid that meets the enteric virus density requirement are documented.

(DD) After the enteric virus reduction in subitem (CC) is demonstrated for the pathogen treatment process, the biosolid continues to be Class A with respect to enteric viruses when the values for the pathogen treatment process operating parameters are consistent with the values or ranges of values documented in subitem (CC).

(iii) Regarding viable helminth ova, the following:

(AA) Prior to pathogen treatment the biosolid must be analyzed to determine whether the biosolid contains viable helminth ova using methods in EPA 600/1-87-014\*.

(BB) When the density of viable helminth ova in the biosolid prior to pathogen treatment is less than one (1) per four (4) grams of total solids the biosolid is Class A with respect to viable helminth ova until the next monitoring required by section 16 of this rule for the biosolid.

(CC) When the density of viable helminth ova in the biosolid prior to pathogen treatment is equal to or greater than one (1) per four (4) grams of total solids the biosolid is Class A with respect to viable helminth ova when the density of viable helminth ova in the biosolid after pathogen treatment is less than one (1) per four (4) grams of total solids and when the values or ranges of values for the operating parameters for the pathogen treatment process that produces the biosolid that meets the viable helminth ova density requirement are documented.

(DD) After the viable helminth ova reduction in subitem (CC) is demonstrated for the pathogen treatment process, the biosolid continues to be Class A with respect to viable helminth ova when the values for the pathogen treatment process operating parameters are consistent with the values or ranges of values documented in subitem (CC).

(D) For Class A, Alternative 4, the following:

(i) The density of fecal coliform in the biosolid, as determined by Part 9221 E\* or Part 9222 D\*, must be less than one thousand (1,000) MPN per gram of total solids.

(ii) The density of enteric viruses in the biosolid must be less than one (1) PFU per four (4) grams of total solids.

(iii) The density of viable helminth ova in the biosolid must be less than one (1) per four (4) grams of total solids.

(E) For Class A, Alternative 5, the following:

(i) The density of fecal coliform in the biosolid, as determined by Part 9221 E\* or Part 9222 D\*, must be less than one thousand (1,000) MPN per gram of total solids.

(ii) Biosolid must be treated in one (1) of the processes to further reduce pathogens described in section 14(b) of this rule.

(F) For Class A, Alternative 6, the following:

(i) The density of fecal coliform in the biosolid, as determined by Part 9221 E\* or Part 9222 D\*, must be less than one thousand (1,000) MPN per gram

of total solids.

(ii) A biosolid must be treated in a process that is equivalent to a process to further reduce pathogens as determined by the commissioner on the recommendation of EPA.

(c) To be categorized as Class B, a biosolid must meet one (1) of the following alternatives:

(1) For Class B, Alternative 1, the following:

(A) Seven (7) representative samples of the biosolid must be collected prior to land application.

(B) The geometric mean of the density of fecal coliform in the samples collected in clause (A) must be less than either two million (2,000,000) MPN per gram of total solids or two million (2,000,000) colony-forming units (CFU) per gram of total solids.

(2) For Class B, Alternative 2, the biosolid must be treated by one (1) of the processes to significantly reduce pathogens described in section 14(a) of this rule.

(3) For Class B, Alternative 3, the biosolid that is used or disposed must be treated in a process that is equivalent to a process to significantly reduce pathogens, as determined by the commissioner on the recommendation of EPA.

(d) For purposes of subsection (b)(2)(B), the pH of biosolid must be measured at twenty-five (25) degrees Celsius or measured at another temperature and then converted to an equivalent value at twenty-five (25) degrees Celsius.

\*Methods referenced in this section may be obtained as follows:

(1) Part 9221 E and Part 9222 D may be found in "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, available from American Public Health Association, 1015 15th Street, N.W., Washington, D.C. 20005.

(2) ASTM Designation: D 4994-89 may be found in "Standard Practice for Recovery of Viruses From Wastewater Sludges", 1996 Annual Book of ASTM Standards: Section 11.02, Water, Part 2, available from ASTM, 1916 Race Street, Philadelphia, Pennsylvania 19103-1187.

(3) EPA 600/1-87-014, Yanko, W.A., "Occurrence of Pathogens in Distribution and Marketing Municipal Sludges", January 1988, is available from National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161 (PB 88-154273/AS).

These methods are also available for copying at the Indiana Department of Environmental Management, Office of Land Quality, 100 North Senate Avenue, Room 1154, Indianapolis, Indiana 46204. (*Water Pollution Control Board; 327 IAC 6.1-4-13; filed May 15, 1998, 10:20 a.m.: 21 IR 3795; errata, 21 IR 4537; readopted*

*filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3613)*

### **327 IAC 6.1-4-14 Pathogen treatment processes**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 14. (a) For purposes of section 13(c)(2) of this rule, the processes to significantly reduce pathogens (PSRP) include the following:

(1) Aerobic digestion, including the following:

(A) A biosolid must be agitated with air or oxygen to maintain aerobic conditions for a specific mean cell residence time at a specific temperature.

(B) Values for the mean cell residence time and temperature must be between:

(i) forty (40) days at twenty degrees Celsius (20°C); and

(ii) sixty (60) days at fifteen degrees Celsius (15°C).

(2) Air drying, including the following:

(A) A biosolid must be dried on:

(i) sand beds; or

(ii) paved basins.

(B) The biosolid must dry for a minimum of ninety (90) days.

(C) For at least sixty (60) consecutive days, the ambient average daily temperature must be above zero degrees Celsius (0°C).

(3) Anaerobic digestion, including the following:

(A) Biosolid must be treated in the absence of oxygen for a specific mean cell residence time at a specific temperature.

(B) Values for the mean cell residence time and temperature must be between:

(i) fifteen (15) days at thirty-five degrees Celsius (35°C) to fifty-five degrees Celsius (55°C); and

(ii) sixty (60) days at twenty degrees Celsius (20°C).

(4) Composting, including the following:

(A) Using either the within-vessel, static aerated pile, or windrow composting methods\*, the temperature of the biosolid must:

(i) be raised to forty degrees Celsius (40°C) or higher; and

(ii) remain at forty degrees Celsius (40°C) or higher for five (5) days.

(B) For four (4) hours during the five (5) days, the temperature in the compost pile must exceed fifty-five degrees Celsius (55°C).

(5) Lime stabilization in which sufficient lime is added to the biosolid to raise the pH of the biosolid to 12

after two (2) hours of contact.

(b) For purposes of section 13(b)(2)(E)(ii) of this rule, the processes to further reduce pathogens (PFRP) include the following:

(1) Composting, including the following:

(A) Using either the within-vessel composting method\* or the static aerated pile composting method\*, the temperature of the biosolid must be maintained at fifty-five degrees Celsius (55°C) or higher for three (3) days.

(B) Using the windrow composting method\*:

(i) the temperature of the biosolid must be maintained at fifty-five degrees Celsius (55°C) or higher for fifteen (15) days or longer; and

(ii) during the period when the compost is maintained at fifty-five degrees Celsius (55°C) or higher, there must be a minimum of five (5) turnings of the windrow.

(2) Heat drying, including the following:

(A) A biosolid must be dried by direct or indirect contact with hot gases to increase the percent total solids of the biosolid to ninety percent (90%) or greater.

(B) Either:

(i) the temperature of the biosolid particles must exceed eighty degrees Celsius (80°C); or

(ii) the wet bulb temperature of the gas in contact with the biosolid as the biosolid leaves the dryer must exceed eighty degrees Celsius (80°C).

(3) Liquid biosolid must be heated to a temperature of one hundred eighty degrees Celsius (180°C) or higher for thirty (30) minutes.

(4) Thermophilic aerobic digestion, including the following:

(A) Liquid biosolid must be agitated with air or oxygen to maintain aerobic conditions.

(B) The mean cell residence time of the biosolid must be for ten (10) days at fifty-five degrees Celsius (55°C) to sixty degrees Celsius (60°C).

(5) Biosolid must be irradiated with beta rays from an accelerator at dosages of at least one (1.0) megarad at room temperature, which is approximately twenty degrees Celsius (20°C).

(6) Biosolid must be irradiated with gamma rays from certain isotopes, such as Cobalt 60 and Cesium 137, at dosages of at least one (1.0) megarad at room temperature, which is approximately twenty degrees Celsius (20°C).

(7) For pasteurization, the temperature of the biosolid must be maintained at seventy degrees Celsius (70°C) or higher for thirty (30) minutes or longer.

(c) For purposes of subsection (a)(5), the pH of biosolid must be measured at twenty-five degrees Celsius

(25°C) or measured at another temperature and then converted to an equivalent value at twenty-five degrees Celsius (25°C).

\*Methods for within-vessel, static aerated pile, or windrow composting methods may be found in "Environmental Regulations and Technology-Control of Pathogens and Vectors in Sewage Sludge", EPA-625/R-92/013, available from U.S. Environmental Protection Agency, Cincinnati, Ohio, 1992. This method is also available for copying at the Indiana Department of Environmental Management, Office of Solid and Hazardous Waste Management, 100 North Senate Avenue, Room 1154, Indianapolis, Indiana 46204. (*Water Pollution Control Board; 327 IAC 6.1-4-14; filed May 15, 1998, 10:20 a.m.: 21 IR 3798; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-4-15 Vector attraction reduction requirements**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 15. (a) One (1) of the vector attraction reduction requirements in subsection (b) or an equivalent vector attraction reduction method as approved by the commissioner on the recommendation of the U.S. EPA must be met when biosolid is applied to any land application site.

(b) The following is a list of alternative vector attraction reduction requirements for a biosolid applied to the land:

(1) The mass of volatile solids in the biosolid is reduced by a minimum of thirty-eight percent (38%) as determined using EPA-625/R-92/013\*.

(2) When the thirty-eight percent (38%) volatile solids reduction requirement in subdivision (1) cannot be met for an anaerobically digested biosolid, vector attraction reduction is demonstrated by digesting a portion of the previously digested biosolid anaerobically in the laboratory in a bench-scale unit for forty (40) additional days at a temperature between thirty degrees Celsius (30°C) and thirty-seven degrees Celsius (37°C). When, at the end of the forty (40) days, the volatile solids in the biosolid at the beginning of that period is reduced by less than seventeen percent (17%), vector attraction reduction is achieved.

(3) When the thirty-eight percent (38%) volatile solids reduction requirement in subdivision (1) cannot be met for an aerobically digested biosolid, vector attraction reduction is demonstrated by digesting a portion of the previously digested biosolid that has a percent total solids of two percent (2%) or less aerobically in the laboratory in a bench-scale unit for thirty (30) addi-

tional days at twenty degrees Celsius (20°C). When, at the end of the thirty (30) days, the volatile solids in the biosolid at the beginning of that period is reduced by less than fifteen percent (15%), vector attraction reduction is achieved.

(4) The specific oxygen uptake rate (SOUR) as determined using Part 2710 B\* for a biosolid treated in an aerobic process is equal to or less than one and one-half (1.5) milligrams of oxygen per hour per gram of total solids at a temperature of twenty degrees Celsius (20°C).

(5) A biosolid is treated in an aerobic process for fourteen (14) days or longer. During that time, the temperature of the biosolid must be higher than forty degrees Celsius (40°C) and the average temperature of the biosolid must be higher than forty-five degrees Celsius (45°C).

(6) The pH of a biosolid is raised to 12 or higher by alkali addition and, without the addition of more alkali, must remain at 12 or higher for two (2) hours and then at 11.5 or higher at the time the biosolid is applied to the land or distributed in a marketing and distribution program under 327 IAC 6.1-5.

(7) The percent total solids of a biosolid that does not contain unstabilized solids generated in a primary wastewater treatment process is equal to or greater than seventy-five percent (75%) at the time the biosolid is applied to the land or distributed in a marketing and distribution program under 327 IAC 6.1-5.

(8) The percent total solids of a biosolid that contains unstabilized solids generated in a primary wastewater treatment process is equal to or greater than ninety percent (90%) at the time the biosolid is applied to the land or distributed in a marketing and distribution program under 327 IAC 6.1-5.

(9) A biosolid injected below the surface of the land must:

(A) have no significant amount of the biosolid present on the land surface within one (1) hour after the biosolid is injected; and

(B) when the biosolid is Class A under section 13(b) of this rule, with respect to pathogens, be injected below the land surface within eight (8) hours after being discharged from the pathogen treatment process.

(10) A biosolid applied to the land surface must:

(A) unless otherwise approved by the commissioner, be incorporated into the soil within six (6) hours after application to or placement on the land; and

(B) when a biosolid is Class A under section 13(b) of this rule, with respect to pathogens, must be applied to or placed on the land within eight (8)

hours after being discharged from the pathogen treatment process.

(c) For purposes of subsection (b)(6), the pH of biosolid must be measured at twenty-five degrees Celsius (25°C) or measured at another temperature and then converted to an equivalent value at twenty-five degrees Celsius (25°C).

\*Methods referenced in this section may be obtained as follows:

(1) EPA-625/R-92/013, "Environmental Regulations and Technology—Control of Pathogens and Vectors in Sewage Sludge", is available from U.S. Environmental Protection Agency, Cincinnati, Ohio, 1992.

(2) Part 2710 B may be found in "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, available from American Public Health Association, 1015 15th Street, N.W., Washington, D.C. 20005.

These methods are also available for copying at the Indiana Department of Environmental Management, Office of Solid and Hazardous Waste Management, 100 North Senate Avenue, Room 1154, Indianapolis, Indiana 46204. (*Water Pollution Control Board; 327 IAC 6.1-4-15; filed May 15, 1998, 10:20 a.m.: 21 IR 3799; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 6.1-4-16 Monitoring and analysis

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-14-4-3

Sec. 16. (a) Characteristics of a biosolid or industrial waste product must be monitored as required in this section.

(b) The resulting analyses of such characteristics must be reported on both a wet weight and dry weight basis.

(c) Analyses of additional parameters may be required by the commissioner on a case-by-case basis to protect the environment or public health.

(d) Biosolid or industrial waste product that is to be applied to the land must be monitored each day of land application for percent total solids.

(e) Prior to land application, representative samples of biosolid or industrial waste product that is to be applied to the land shall be collected and analyzed at the frequency listed in Table 6 in subsection (f) for the following parameters:

(1) Percent total solids.

(2) The following total metals, as determined by EPA/600/4-91/010 or SW 846\*, with detection limits not to exceed Table 4.5 of section 9(e) of this rule:

(A) Arsenic.

(B) Cadmium.

- (C) Copper.
- (D) Lead.
- (E) Mercury.
- (F) Molybdenum.
- (G) Nickel.
- (H) Selenium.
- (I) Zinc.

(3) Polychlorinated biphenyls (PCBs).

(4) The applicable pathogen density requirements in section 13 of this rule.

(5) The applicable vector attraction reduction requirements in section 15(b) of this rule or an equivalent vector attraction reduction requirement as determined by the commissioner.

(f) The results of the analysis in subsection (e) are valid for the applicable length of time listed in Table 6 as follows:

Table 6

Frequency of Monitoring

Amount of Biosolid or Industrial Waste Product <sup>1</sup> (dry tons per 365 day period)	Frequency of Monitoring <sup>2</sup>
Greater than 0 but less than 319	12 months
Equal to or greater than 319 but less than 1,653	3 months
Equal to or greater than 1,653 but less than 16,530	2 months
Equal to or greater than 16,530	1 month

<sup>1</sup>For existing facilities, either the amount of biosolid or industrial waste product generated in the previous year or the amount of biosolid or industrial waste product received by a person who prepares biosolid or industrial waste product that is marketed or distributed for application to the land, dry weight basis. For new facilities, the amount determined by engineering estimates for generation of biosolid or industrial waste product for the specific new facility.

<sup>2</sup>For the purposes of this table, a month is a 30 day period.

(g) After the biosolid or industrial waste product has been monitored for two (2) years at the frequency in Table 6 in subsection (f), the person who prepares a biosolid or industrial waste product may request a reduced frequency of monitoring from the commissioner for pollutant concentrations in subsection (e)(2) and (e)(4).

(h) If the person who prepares a biosolid or industrial waste product can demonstrate to the satisfaction of the commissioner that the biosolid or industrial waste product has contained no detectable concentrations of PCBs for the previous two (2) years, the commissioner may reduce the required monitoring frequency for PCBs.

(i) For biosolid or industrial waste product that is a fixed volume, the person who prepares must, as specified in the permit, do either subdivision (1) or (2) as follows:

(1) A representative sample of the biosolid or industrial waste product must be collected and analyzed for the parameters in subdivision (3) prior to land application. The results of this analysis are valid for reporting land application activities for a thirty (30) day period following the sample report date.

(2) Collect a composite sample and analyze for the parameters in subdivision (3). The composite sample must consist of a representative sample collected during each day of application. The composite sample must be collected over no more than thirty (30) days.

(3) The following parameters must be analyzed\*\*:

- (A) Percent total solids.
- (B) Total nitrogen.
- (C) Ammonia nitrogen.
- (D) Nitrate nitrogen.
- (E) Phosphorus.
- (F) Potassium.

(j) For biosolid or industrial waste product that is not a fixed volume, the person who prepares must collect a composite sample and analyze for the parameters in subsection (i)(3). The composite sample must consist of a representative sample collected during each day of application. The composite sample must be collected over no more than thirty (30) days.

(k) Alternative equivalent methods meeting the requirements of this section may be used by the person who prepares a biosolid or industrial waste product if approved by the commissioner.

\*Methods referenced in this section may be obtained as follows:

(1) EPA/600/4-91/010, "Methods for the Determination of Metals in Environmental Samples", June 1991, available from Environmental Protection Agency, Water Quality Office, Analytical Quality Control Laboratory, 1014 Broadway, Cincinnati, Ohio 45202.

(2) "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846, [Third Edition, November 1986, as amended by Updates 1 (July 1992), 2 (September 1994), 2A (August 1993), and 2B (January 1995) and 3 (December 1996)], available from U.S. EPA.

\*\*EPA-600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", March 1983, available from Environmental Protection Agency, Water Quality Office, Analytical Quality Control Laboratory, 1014 Broadway, Cincinnati, Ohio 45202.

These methods are also available for copying at the Indiana Department of Environmental Management, Office of Land Quality, 100 North Senate Avenue, Room

1154, Indianapolis, Indiana 46204. (*Water Pollution Control Board; 327 IAC 6.1-4-16; filed May 15, 1998, 10:20 a.m.: 21 IR 3800; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3615*)

### **327 IAC 6.1-4-17 Records and record keeping**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-14-4-3; IC 13-15-2

Sec. 17. (a) Information regarding application rates and site conditions must be recorded daily by the person who prepares a biosolid or industrial waste product or as otherwise specified by the permit.

(b) The person who prepares a biosolid or industrial waste product shall record the monitoring results and information required by section 16 of this rule. Such records must be:

(1) retained by the person who prepares the biosolid or industrial waste product for:

- (A) a minimum of five (5) years; or
- (B) a longer time if required by the commissioner in the permit; and

(2) accessible to department representatives at the facility or other location clearly identified in writing to the commissioner.

(c) For biosolid or industrial waste product that is applied to any land application site under 327 IAC 6.1-4 the following applies:

(1) The person who prepares the biosolid or industrial waste product shall develop the following information and shall retain the information for five (5) years:

- (A) The results of the analyses conducted under section 16 of this rule.
- (B) A certification statement on forms and in a format prescribed by the commissioner.
- (C) A description of how the Class A pathogen requirements in section 13(b) of this rule or Class B pathogen requirements in section 13(c) of this rule are met.

(D) When one (1) of the vector attraction reduction requirements in section 15(b)(1) through 15(b)(8) of this rule is met, a description of how the vector attraction reduction requirement is met.

(E) The information in subdivision (3)(E) through (3)(G) provided by the person who applies the biosolid or industrial waste product.

(F) Documentation for the length of time for stockpiles under section 8(e)(3)(A) of this rule.

(2) The person who prepares the biosolid or industrial waste product shall develop the following information and shall retain the information indefinitely:

(A) The cumulative amount of each pollutant in pounds per acre listed in Table 2 in section 9(b) of this rule in the biosolid or industrial waste product applied to each site, including the amount in section 3(e)(3) of this rule.

(B) A description of how the requirements to obtain information in section 3(e) of this rule are met.

(C) The information in subdivision (3)(A) through (3)(D) provided by the person who applies the biosolid or industrial waste product.

(3) For each day in which biosolid or industrial waste product is applied, the person who applies the biosolid or industrial waste product shall develop the following information and provide it to the person who prepares the biosolid or industrial waste product:

(A) The location, indicated on a site map, of each site that biosolid or industrial waste product is applied.

(B) The number of acres in each site to which biosolid or industrial waste product is applied.

(C) The date biosolid or industrial waste product is applied to each site.

(D) The amount of biosolid or industrial waste product in dry tons applied to each site.

(E) A description of how the site restrictions in sections 5(d), 5.5(d), and 6 of this rule and the management practices in section 7 of this rule are met for each site on which biosolid or industrial waste product is applied.

(F) When the vector attraction reduction requirement in either section 15(b)(9) or 15(b)(10) of this rule is met, a certification statement on forms prescribed by the commissioner.

(G) If the vector attraction reduction requirements in either section 15(b)(9) or 15(b)(10) of this rule are met, a description of how the requirements are met.

(4) The person who prepares by receiving and blending shall document the following:

(A) The generating source of the received biosolid or industrial waste product.

(B) The amount of the biosolid or industrial waste product.

(C) The date the biosolid or industrial waste product was received.

(d) A copy of the permit must be kept at the treatment plant or generating facility. (*Water Pollution Control Board; 327 IAC 6.1-4-17; filed May 15, 1998, 10:20 a.m.: 21 IR 3801; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3617*)

### **327 IAC 6.1-4-18 Reports and reporting**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-14-4-3; IC 13-15

Sec. 18. (a) Activities and analyses related to disposal of a biosolid or industrial waste product must be reported:

- (1) to the commissioner within thirty (30) days of the last day of each calendar month for the term of the permit; and
- (2) submitted on forms and in a format prescribed by the commissioner unless the commissioner makes a determination that only an electronic copy is needed.

(b) The person who prepares a biosolid or industrial waste product shall notify the commissioner of the cumulative application on a land application site of any metal in Table 2 in section 9(b) of this rule for the applied biosolid or industrial waste product in a quantity equal to or greater than ninety percent (90%) of the quantity specified in Table 2 in section 9(b) of this rule within thirty (30) days after that level is reached.

(c) The quantity of all metals listed in Table 2 in section 9(b) of this rule that are applied to the land application site will be forwarded by the commissioner to the county recorder of the county where the land application site is located for inclusion in the permanent land records when ninety percent (90%) of the level of any metal is reached as per Table 2 in section 9(b) of this rule. *(Water Pollution Control Board; 327 IAC 6.1-4-18; filed May 15, 1998, 10:20 a.m.: 21 IR 3801; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3618)*

### **327 IAC 6.1-4-19 Research and demonstration projects for biosolid or industrial waste product**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 19. Biosolid or industrial waste product may be used for research and demonstration projects in accordance with IC 13-30-2-1(7) if a plan with the following information is submitted and approved by the commissioner:

- (1) Name, address, phone number, and authorizing signatures of:
  - (A) the person conducting the research or demonstration project;
  - (B) the responsible person designated from the facility providing the biosolid or industrial waste product; and
  - (C) the owner of the property upon which the research or demonstration project will be conducted.
- (2) Narrative statement of goals and objectives of research or demonstration project.
- (3) Description of experimental design.

(4) Description and quantity of biosolid or industrial waste product.

(5) Analytical data.

(6) Location of property upon which research or demonstration project will be conducted.

(7) Duration of project.

(8) Other applicable information.

*(Water Pollution Control Board; 327 IAC 6.1-4-19; filed May 15, 1998, 10:20 a.m.: 21 IR 3802; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3618)*

### **327 IAC 6.1-4-20 Alternative uses of biosolid at a domestic sewage treatment works**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 20. A domestic sewage treatment works that holds a valid permit under this article may use the permitted biosolid on the treatment works grounds under the following conditions:

(1) The biosolid must be dewatered.

(2) No more than one (1) dry ton of a biosolid may be used during any twelve (12) month period.

(3) A biosolid may not be used on land with a high potential for public exposure.

(4) Application of a biosolid must be in accordance with the permit.

*(Water Pollution Control Board; 327 IAC 6.1-4-20; filed May 15, 1998, 10:20 a.m.: 21 IR 3802; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 5. Marketing and Distribution Permit**

327 IAC 6.1-5-1 Marketing and distribution permit eligibility criteria for biosolid

327 IAC 6.1-5-2 Marketing and distribution permit eligibility criteria industrial waste product

327 IAC 6.1-5-3 Marketing and distribution permit application

327 IAC 6.1-5-4 Marketing and distribution permits; general

### **327 IAC 6.1-5-1 Marketing and distribution permit eligibility criteria for biosolid**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-18-14-1; IC 13-30-2-1

Sec. 1. For a biosolid to be eligible for a marketing and distribution permit, the following criteria must be met:

(1) The Class A pathogen requirements in 327 IAC 6.1-4-13(b).

(2) Compliance with at least one (1) of the vector

attraction reduction requirements in 327 IAC 6.1-4-15(b)(1) through 327 IAC 6.1-4-15(b)(8) or an equivalent vector attraction reduction requirement as determined by the commissioner.

(3) The pollutant concentrations are less than the concentrations in Table 3 in 327 IAC 6.1-4-9(c).

(4) The biosolid must be dewatered.

(5) The biosolid must not contain a concentration of polychlorinated biphenyls (PCBs) of two (2) milligrams per kilogram or greater on a dry weight basis.

*(Water Pollution Control Board; 327 IAC 6.1-5-1; filed May 15, 1998, 10:20 a.m.: 21 IR 3802; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3618)*

### **327 IAC 6.1-5-2 Marketing and distribution permit eligibility criteria industrial waste product**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-18-14-1; IC 13-30-2-1

Sec. 2. For an industrial waste product to be eligible for a marketing and distribution permit, the following criteria must be met:

(1) The pollutant concentrations are less than the concentrations in Table 3 in 327 IAC 6.1-4-9(c).

(2) The industrial waste product must be dewatered.

(3) The industrial waste product must not contain a concentration of polychlorinated biphenyls (PCBs) of two (2) milligrams per kilogram or greater on a dry weight basis.

*(Water Pollution Control Board; 327 IAC 6.1-5-2; filed May 15, 1998, 10:20 a.m.: 21 IR 3802; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3618)*

### **327 IAC 6.1-5-3 Marketing and distribution permit application**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-18-14-1; IC 13-30-2-1

Sec. 3. (a) Approval for a biosolid or industrial waste product marketing and distribution permit must be requested in an application on forms and in a format prescribed by the commissioner and submitted to the commissioner in accordance with 327 IAC 6.1-3. The application must include a proposed management plan submitted and approved by the commissioner, including the following:

(1) How the biosolid or industrial waste product will be marketed.

(2) Quality control measures.

(3) Treatment process description.

(4) How the biosolid or industrial waste product will be stored, including the following:

(A) Setback distances from residences and public buildings, surface waters, wells, and other structures.

(B) Location criteria including flood plains, slopes, water table, soil pH, and other location criteria.

(C) Design and construction of storage structures.

(D) Nuisance control measures.

(5) Procedures for addressing noncomplying practices by users, including:

(A) a written notification of the proper use of the biosolid or industrial waste product to the noncomplying user; and

(B) other applicable procedures.

(6) Other applicable information.

(b) To market or distribute biosolid or industrial waste product that is not generated in Indiana and that is to be applied to land in Indiana under a marketing and distribution permit, persons who prepare the biosolid or industrial waste product that was not generated in Indiana or marketers of the biosolid or industrial waste product that was not generated in Indiana must:

(1) be in compliance with IC 13-18-14-1; and

(2) obtain an Indiana permit by:

(A) requesting reciprocity from the commissioner; or

(B) submitting an application in accordance with subsection (a).

(c) Persons who prepare a biosolid or industrial waste product that was not generated in Indiana and that are requesting reciprocity shall hold a valid permit from another state that is at least as stringent as this article.

(d) The commissioner shall issue a permit that is valid for no longer than the expiration date of the out-of-state permit or up to five (5) years, whichever is shorter, to the person who prepares a biosolid or industrial waste product that was not generated in Indiana and that is for marketing and distribution program if:

(1) a submitted application or request for reciprocity is approved by the commissioner; and

(2) the commissioner determines that the operation of the program under the proposed project description does not pose a risk to the environment or public health.

*(Water Pollution Control Board; 327 IAC 6.1-5-3; filed May 15, 1998, 10:20 a.m.: 21 IR 3802; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3619)*

### **327 IAC 6.1-5-4 Marketing and distribution permits; general**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 4. (a) Any person who prepares a biosolid or industrial waste product and that holds a marketing and distribution permit shall comply with the following:

- (1) All permit conditions.
- (2) The person who prepares a biosolid or industrial waste product shall develop and distribute an information sheet that includes the following:
  - (A) The name and address of the person who prepared the biosolid or industrial waste product that is marketed or distributed for application to the land.
  - (B) A statement that application of the biosolid or industrial waste product is prohibited, except in accordance with the instructions on the information sheet.
  - (C) Quality criteria based on current analytical data for the biosolid or industrial waste product.
  - (D) Recommended maximum application rates based upon nutrient content.
  - (E) For the information sheet for an industrial waste product or a biosolid containing an industrial waste product containing more than two (2) milligrams per kilogram cadmium, a statement that the soil pH must be at least 6.5 when applied to land for food crops.
  - (F) For the information sheet for a biosolid or an industrial waste product containing more than forty (40) milligrams per kilogram of molybdenum, a statement that the biosolid or the industrial waste product must not be applied to pasture.
- (3) This information sheet must be:
  - (A) kept on file for the duration of the permit and for five (5) years following the expiration of the permit;
  - (B) updated quarterly or as specified in the permit; and
  - (C) be accessible to department representatives at the facility or other location approved by the commissioner.
- (4) Each person who prepares a biosolid or industrial waste product is responsible for informing users of a biosolid or industrial waste product of the biosolid or industrial waste product quality and proper amounts for specific needs.
- (5) Annual reports must be submitted on forms and in a format prescribed by the commissioner by January 31 of each subsequent year. The report must include the following information:
  - (A) The biosolid or industrial waste product quantity distributed or marketed.
  - (B) An updated copy of the information sheet to be distributed with the biosolid or industrial waste product.
  - (C) The analytical data required under subsection (b).
- (b) The person who prepares a biosolid or industrial

waste product under a marketing and distribution permit shall collect and analyze representative samples for the parameters listed in 327 IAC 6.1-4-16(e) and 327 IAC 6.1-4-16(i) at the applicable frequency listed in Table 6 in 327 IAC 6.1-4-16(f), except for biosolid or industrial waste product in quantities of less than three hundred nineteen (319) dry tons per three hundred sixty-five (365) day period that must be monitored at least twice per year.

(c) The person who prepares a biosolid or industrial waste product under a marketing and distribution permit in this rule shall develop the following information and shall retain the information for five (5) years:

- (1) Analyses conducted in accordance with subsection (b).
- (2) A certification statement on forms prescribed by the commissioner.
- (3) A description of how the Class A pathogen requirements in 327 IAC 6.1-4-13(b) are met.
- (4) A description of how one (1) of the vector attraction reduction requirements in 327 IAC 6.1-4-15(b)(1) through 327 IAC 6.1-4-15(b)(8) are met.
- (5) Copies of all written notifications for noncomplying use of the biosolid or industrial waste product that have been sent to users.
- (6) The name and address of recipients of more than one (1) dry ton per calendar quarter.

*(Water Pollution Control Board; 327 IAC 6.1-5-4; filed May 15, 1998, 10:20 a.m.: 21 IR 3803; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3619)*

#### Rule 6. Notifications

- 327 IAC 6.1-6-1 Notification eligibility criteria  
 327 IAC 6.1-6-2 Agricultural lime substitute notifications; general  
 327 IAC 6.1-6-3 Agricultural lime substitute application

#### 327 IAC 6.1-6-1 Notification eligibility criteria

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 1. (a) For an agricultural lime substitute to be eligible for the notification program under this rule, the following criteria must be met:

- (1) Be an agricultural lime substitute that has greater than fifty percent (50%) calcium carbonate equivalency (CCE) or that has a calculated adjusted lime rate of two (2) tons per acre or less using a recommended agricultural lime rate of one (1) ton per acre and a depth factor of seventy-five hundredths (0.75).
- (2) Contain no biosolid.
- (3) Pollutant concentrations are less than the concentrations in Table 3 in 327 IAC 6.1-4-9(c).
- (4) Must not contain a concentration of polychlorinated

biphenyls (PCBs) of two (2) milligrams per kilogram or greater on a dry weight basis.

(b) For purposes of this article, agricultural lime substitute does not include the following:

- (1) Unprocessed fly ash.
- (2) Cement kiln dust.
- (3) Alum sludges from water treatment facilities.

*(Water Pollution Control Board; 327 IAC 6.1-6-1; filed May 15, 1998, 10:20 a.m.: 21 IR 3804; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3620)*

**327 IAC 6.1-6-2 Agricultural lime substitute notifications; general**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 2. (a) The person who prepares an agricultural lime substitute under the notification program shall submit a written notification to the commissioner of the activity:

- (1) at least thirty (30) days before initial application of the agricultural lime substitute; and
- (2) by January 31 of each subsequent year in which the agricultural lime substitute will be applied.

(b) The written notification must contain the following information:

- (1) The name and address of the person who prepares the agricultural lime substitute.
- (2) The name and address of the person who applies the agricultural lime substitute.
- (3) An analysis of the agricultural lime substitute that was obtained and analyzed within the previous three hundred sixty-five (365) days that includes the following:
  - (A) Calcium carbonate equivalency (CCE)\*.
  - (B) The pollutants listed in Table 3 in 327 IAC 6.1-4-9(c).

(c) Unless notified by the commissioner within thirty (30) days after submitting a written notification, the person who prepares an agricultural lime substitute and that submitted the written notification may begin applying the agricultural lime substitute in compliance with this rule.

(d) Analyses for the following must be conducted semiannually:

- (1) The pollutants listed in Table 3 in 327 IAC 6.1-4-9(c).
- (2) The percent passing mesh size\*.
- (3) The calcium carbonate equivalency (CCE)\*.

(e) The person who prepares an agricultural lime substitute and that is operating under the notification program shall maintain records of the following information for five (5) years and report to the commissioner the

following information by January 31 of each subsequent year in which agricultural lime substitute was applied:

- (1) The results of analyses in subsection (d).
- (2) The quantity of the agricultural lime substitute applied during the previous year.

\*Methods for the percent passing mesh size and calcium carbonate equivalency may be found in Agricultural Liming Materials, Frank Johnson, Associate Chapter Editor, National Fertilizer Development Center, Tennessee Valley Authority, Official Methods of Analysis, Association of Official Analytical Chemists, Agricultural Chemicals; Contaminants; Drugs, Volume One, 15th Edition, 1990. Edited by Kenneth Helrich, available from the Association of Official Analytical Chemists, Inc., Suite 400, 2200 Wilson Boulevard, Arlington, Virginia 22201. This method is also available for copying at the Indiana Department of Environmental Management, Office of Land Quality, 100 North Senate Avenue, Room 1154, Indianapolis, Indiana 46204. *(Water Pollution Control Board; 327 IAC 6.1-6-2; filed May 15, 1998, 10:20 a.m.: 21 IR 3804; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3620)*

**327 IAC 6.1-6-3 Agricultural lime substitute application**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 3. Agricultural lime substitute must be evenly applied at rates based on the adjusted lime rate as determined by Equation 4 as follows:

Equation 4:

$$\text{Adjusted Lime Rate} = \text{RALR} \times \text{FF} \times \text{NF} \times \text{DF}$$

Where: RALR = Recommended agricultural lime rate derived from the soil analysis report for the application site.

FF = Fineness factor.

NF = Neutralizing factor.

DF = Depth factor.

Table 7 Fineness Factor

Mesh Size	Percent Passing	Mesh	Size	Fineness Factor (FF)
8	100	20	100	.60
20	100	60	100	.63
60	100	100	100	.76
100	95	70	60	1.00
70	70	50	40	1.19
50	85	40	30	1.45
40	80	30	20	1.77
30	80	20	10	2.03
20	80	15	5	

Table 8 Neutralizing Factor

CCE*	Neutralizing Factor (NF)
110–119	.83
100–109	.90
90–99	1.00
80–89	1.12
70–79	1.27
60–69	1.46
50–59	1.73
40–49	2.00

\*CCE = Calcium Carbonate Equivalency

Table 9 Depth Factor

Plowing Depth (Inches)	Depth Factor (DF)
0–≤4	.50
>4–≤6	.75
>6–≤8	1.00
>8–≤10	1.25
>10–≤12	1.50

(Water Pollution Control Board; 327 IAC 6.1-6-3; filed May 15, 1998, 10:20 a.m.: 21 IR 3804; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3621)

### Rule 7. Land Application of Pollutant-Bearing Water

327 IAC 6.1-7-1	Pollutant-bearing water land application
327 IAC 6.1-7-2	Pollutant-bearing water application on land with a high potential for public exposure
327 IAC 6.1-7-3	Domestic wastewater application on land with a low potential for public exposure
327 IAC 6.1-7-4	Industrial process wastewater and storm water application on land with a low potential for public exposure
327 IAC 6.1-7-5	Site restrictions
327 IAC 6.1-7-6	Management practices
327 IAC 6.1-7-7	Domestic wastewater treatment reliability criteria
327 IAC 6.1-7-8	Prohibitions for pollutant-bearing water application
327 IAC 6.1-7-9	Storage of pollutant-bearing water for application
327 IAC 6.1-7-10	Loading rates
327 IAC 6.1-7-11	Records and record keeping
327 IAC 6.1-7-12	Reports and reporting

### 327 IAC 6.1-7-1 Pollutant-bearing water land application

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 1. (a) Land application or injection of pollutant-bearing water must be conducted under the supervision of:

(1) a certified wastewater treatment plant operator licensed under 327 IAC 5-22; or

(2) a person with at least one (1) year of experience in land application management practices and procedures as demonstrated by specific facts contained in a signed affidavit.

The license number or the affidavit must be submitted to the commissioner with the permit application and within thirty (30) days of any change in supervisor of the activity.

(b) Any application of domestic wastewater or industrial process wastewater to the land is prohibited unless a valid site-specific land application permit in accordance with 327 IAC 6.1-1-3(b) has been obtained from the commissioner prior to the application of the domestic wastewater or industrial process wastewater.

(c) Any person who prepares industrial storm water that exceeds any of the pollutant concentrations in Table 10 of subsection (d) shall obtain a permit under subsection (b).

(d) Industrial storm water that exceeds any of the pollutant concentration limits in Table 10 is subject to this rule:

Table 10  
Pollutant Concentrations  
for Industrial Storm Water

Pollutant	mg/l
Arsenic	0.07
Cadmium	0.06
Copper	2.57
Lead	0.51
Mercury	0.02
Molybdenum	0.06
Nickel	0.72
Selenium	0.17
Zinc	4.80

(e) Land application of pollutant-bearing water is excluded from any other requirements of this rule as long as the following are applicable:

(1) Meets the requirements for notification under 327 IAC 6.1-7.5-1.

(2) Applies at a rate of less than two hundred fifty thousand (250,000) gallons per year.

(3) Applies at a rate of less than five thousand (5,000) gallons per acre per week.

(4) Applies at a rate of less than fifty thousand (50,000) gallons per acre per year.

(5) Applies a pollutant-bearing water that contains less than or equal to one thousand (1,000) pounds per million gallons of plant available nitrogen. Plant available nitrogen is calculated using the formula in subsection (f).

(6) Is not a domestic wastewater.

(7) Does not exceed pollutant concentration in Table 10 in subsection (d).

(f) The following formula for plant available nitrogen must be used to calculate the amount of plant available nitrogen required by subsection (e)(5):

$$\begin{aligned} \text{Where:} \quad \text{Total N} &= \text{Total Kjeldahl N} + \text{Nitrate N.} \\ \text{Organic N} &= \text{Total N} - (\text{Ammonia N} + \text{Nitrate N}). \\ \text{Pounds Organic N} &= \text{Organic N} \times 2.5. \\ \text{Pounds of Ammonia N} &= \text{Ammonia N} \times 8.34. \\ \text{Pounds of Nitrate N} &= \text{Nitrate N} \times 8.34. \\ \text{Plant available nitrogen} &= \text{Pounds of Organic N} + \text{Pounds of Ammonia N} + \text{Pounds of Nitrate N.} \end{aligned}$$

*(Water Pollution Control Board; 327 IAC 6.1-7-1; filed May 15, 1998, 10:20 a.m.: 21 IR 3805; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3622)*

**327 IAC 6.1-7-2 Pollutant-bearing water application on land with a high potential for public exposure**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 2. (a) Pollutant-bearing water applied to land with a high potential for public exposure must be treated by subdivisions (1) and (2) in the following order before being applied to the land:

(1) Secondary treatment and any additional treatment necessary to produce effluent in which both BOD is less than or equal to ten (10) milligrams per liter and suspended solids do not exceed five (5) milligrams per liter and that must include:

- (A) activated sludge processes;
- (B) trickling filters;
- (C) rotating biological contactors;
- (D) stabilization pond systems; or
- (E) other secondary treatment approved by the commissioner in the permit.

(2) For domestic wastewater, disinfection by:

- (A) chlorination;
- (B) ozonation;
- (C) chemical disinfectants;
- (D) UV irradiation;
- (E) membrane processes; or
- (F) other processes approved by the commissioner in the permit.

(b) Pollutant-bearing water to be applied to land with a high potential for public exposure must meet the following water quality criteria at the time of application:

- (1) The pH must be between 6 and 9 standard units.
- (2) The BOD must be less than or equal to ten (10) milligrams per liter as determined from the five (5) day BOD test.
- (3) For domestic wastewater, suspended solids must not exceed five (5) milligrams per liter averaged over a twenty-four (24) hour period prior to disinfection.
- (4) For domestic wastewater, analysis for fecal coliform using Part 9221 E\* or Part 9222 D\* must include the following:

(A) Using values determined from the bacteriological results of the last seven (7) days for which analyses have been completed:

- (i) no detectable fecal coliform is found using the median value; and
- (ii) the number of fecal coliform organisms must not exceed fourteen (14) per one hundred (100) milliliters in any sample.

(B) Analysis must be completed using one (1) of the following:

- (i) Membrane filter technique.
- (ii) Fermentation tube technique.

(5) If chlorination is used as the means of disinfection, the total chlorine residual after a minimum contact time of thirty (30) minutes must be at least one (1) milligram per liter.

(6) All applicable permit conditions.

(c) Monitoring for pollutant-bearing water to be applied to land with a high potential for public exposure must be completed no less frequently than the following:

- (1) pH must be monitored at least weekly.
- (2) BOD must be monitored at least weekly.
- (3) For domestic wastewater, suspended solids must be monitored daily.
- (4) For domestic wastewater, coliform must be monitored daily.
- (5) For domestic wastewater, residual chlorine must be monitored daily.
- (6) Pollutants listed in Table 10 in section 1(d) of this rule must be monitored at least annually prior to initiation of land application.
- (7) Monitoring at least monthly is required for the following:

- (A) Total nitrogen.
- (B) Ammonia nitrogen.
- (C) Nitrate nitrogen.
- (D) Phosphorus.
- (E) Potassium.

(8) PCBs must be monitored at least annually.

\*Part 9221 E and Part 9222 D may be found in

“Standard Methods for the Examination of Water and Wastewater”, 18th Edition, 1992, available from American Public Health Association, 1015 15th Street, N.W., Washington, D.C. 20005. This method is also available for copying at the Indiana Department of Environmental Management, Office of Land Quality, 100 North Senate Avenue, Room 1154, Indianapolis, Indiana 46204. (*Water Pollution Control Board; 327 IAC 6.1-7-2; filed May 15, 1998, 10:20 a.m.: 21 IR 3805; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3622*)

**327 IAC 6.1-7-3 Domestic wastewater application on land with a low potential for public exposure**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 3. (a) Domestic wastewater to be applied to land with a low potential for public exposure must be treated by subdivisions (1) and (2) in the following order before application:

(1) Secondary treatment to produce effluent that has both BOD and suspended solids that do not exceed thirty (30) milligrams per liter and which must include:

- (A) activated sludge processes;
- (B) trickling filters;
- (C) rotating biological contactors;
- (D) stabilization pond systems; or
- (E) other secondary treatment approved by the commissioner in the permit.

(2) Disinfection by:

- (A) chlorination;
- (B) ozonation;
- (C) chemical disinfectants;
- (D) UV irradiation;
- (E) membrane processes; or
- (F) other processes approved by the commissioner in the permit.

(b) Domestic wastewater to be applied to land with a low potential for public exposure must meet the following water quality criteria at the time of application:

- (1) The pH must be between 6 and 9 standard units.
- (2) The BOD must be less than or equal to thirty (30) milligrams per liter as determined from the five (5) day BOD test.
- (3) Less than or equal to thirty (30) milligrams per liter suspended solids.
- (4) The analysis for fecal coliform using Part 9221 E\* and Part 9222 D\* must include the following using values determined from the bacteriological results of the last seven (7) days for which analyses have been

completed:

(A) The median fecal coliform level must be less than or equal to two hundred (200) fecal coliform per one hundred (100) milliliters.

(B) The number of fecal coliform organisms must not exceed eight hundred (800) per one hundred (100) milliliters in any sample.

(5) If chlorination is used as the means of disinfection, the total chlorine residual after a minimum contact time of thirty (30) minutes must be at least one (1) milligram per liter.

(c) Monitoring for suspended solids under subsection (e)(3), the suspended solids limits under subsection (b)(3), and the requirement to disinfect under subsection (a)(2) may be exempted by the commissioner in the permit for multicelled stabilization pond systems with a minimum of one hundred twenty (120) days retention time. The exemption is conditional and only applies if the limits for fecal coliforms under subsection (b)(4)(A) are not exceeded. If the fecal coliform limit is exceeded under subsection (b)(4)(A), disinfection under subsection (a)(2) and monitoring of suspended solids under subsection (e)(3) must commence and the suspended solid limits under subsection (b)(3) apply immediately.

(d) If specified in the permit, no restrictions are placed on fecal coliform organisms in domestic wastewater for land application on land to which public access is strictly restricted and food crops are not grown.

(e) Monitoring for domestic wastewater to be applied to land with a low potential for public exposure must be completed no less frequently than the following:

- (1) pH must be monitored at least weekly.
- (2) BOD must be monitored at least weekly.
- (3) Suspended solids must be monitored daily.
- (4) Coliform must be monitored daily unless subsection (d) applies.
- (5) Residual chlorine must be monitored daily.
- (6) Pollutants listed in Table 10 in section 1(d) of this rule must be monitored at least annually prior to initiation of land application.
- (7) Monitoring at least monthly is required for the following:
  - (A) Total nitrogen.
  - (B) Ammonia nitrogen.
  - (C) Nitrate nitrogen.
  - (D) Phosphorus.
  - (E) Potassium.
- (8) PCBs must be monitored at least annually.

\*Part 9221 E and Part 9222 D may be found in “Standard Methods for the Examination of Water and Wastewater”, 18th Edition, 1992, available from American Public Health Association, 1015 15th Street, N.W., Washington, D.C. 20005. This method is also available

for copying at the Indiana Department of Environmental Management, Office of Land Quality, 100 North Senate Avenue, Room 1154, Indianapolis, Indiana 46204. (*Water Pollution Control Board; 327 IAC 6.1-7-3; filed May 15, 1998, 10:20 a.m.: 21 IR 3806; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3623*)

**327 IAC 6.1-7-4 Industrial process wastewater and storm water application on land with a low potential for public exposure**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 4. (a) Industrial process wastewater and industrial storm water to be applied to land with a low potential for public exposure must have a pH between 6 and 9 standard units.

(b) Monitoring for industrial process wastewater and industrial storm water to be applied to land with a low potential for public exposure must be completed no less frequently than the following:

- (1) pH must be monitored at least weekly.
- (2) BOD must be monitored at least weekly.
- (3) Volatile solids must be monitored at least weekly using Part 2540 G\*.
- (4) Pollutants listed in Table 10 in section 1(d) of this rule must be monitored at least annually prior to initiation of land application.
- (5) Monitoring at least monthly is required for the following:
  - (A) Total nitrogen.
  - (B) Ammonia nitrogen.
  - (C) Nitrate nitrogen.
  - (D) Phosphorus.
  - (E) Potassium.

(6) PCBs must be monitored at least annually.

\*Part 2540 G may be found in "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, available from American Public Health Association, 1015 15th Street, N.W., Washington, D.C. 20005. This method is also available for copying at the Indiana Department of Environmental Management, Office of Land Quality, 100 North Senate Avenue, Room 1154, Indianapolis, Indiana 46204. (*Water Pollution Control Board; 327 IAC 6.1-7-4; filed May 15, 1998, 10:20 a.m.: 21 IR 3807; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3624*)

**327 IAC 6.1-7-5 Site restrictions**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 5. (a) Land application of pollutant-bearing water must not be conducted within:

	Surface applied	Applied beneath the surface
Surface waters or the surface conduit to a subsurface feature	300 feet	33 feet
Residence	300 feet	To property line
Potable well or drinking water spring	200 feet	200 feet

(b) The soil pH must be 5.5 or greater at the time the pollutant-bearing water is applied unless the commissioner determines that the soil pH should be higher to protect the environment or public health. The soil pH value shall be:

- (1) obtained by sampling the soil to the depth of cultivation or depth of placement of the pollutant-bearing water, whichever is greater;
- (2) analyzed by the electrometric method\*;
- (3) collected as one (1) representative composite sample per every twenty-five (25) acres or fraction thereof within the application site; and
- (4) valid only if the analyses were performed within the last two (2) years of the date of application on the site.

(c) Pollutant-bearing water must not be applied to land unless there is a minimum depth of twenty (20) inches of soil overlying bedrock.

(d) Surface application of pollutant-bearing water on slopes greater than six percent (6%) is prohibited.

\*The electrometric method may be found in "Methods of Soil Analysis, Agronomy Monograph No. 9", C.A. Black, ed., American Society of Agronomy, Madison, Wisconsin, pp. 199-209, 1982, available from the American Society of Agronomy, Soil Science of America, Inc., 677 South Segoe Road, Madison, Wisconsin 53711. This method is also available for copying at the Indiana Department of Environmental Management, Office of Land Quality, 100 North Senate Avenue, Room 1154, Indianapolis, Indiana 46204. (*Water Pollution Control Board; 327 IAC 6.1-7-5; filed May 15, 1998, 10:20 a.m.: 21 IR 3807; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3625*)

**327 IAC 6.1-7-6 Management practices**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1; IC 14-20-1; IC 14-22-34

Sec. 6. (a) Food crops shall not be harvested for fourteen (14) months after land application of domestic wastewater if the harvested part:

- (1) touches the ground where domestic wastewater has been land applied; and
- (2) has no harvested parts below the soil surface.

(b) Food crops shall not be harvested for thirty-eight (38) months after land application of domestic wastewater if harvested parts are below the soil surface.

(c) Unless subsection (a) or (b) applies, food crops, feed crops, and fiber crops shall not be harvested for thirty (30) days after land application of domestic wastewater.

(d) Except for domestic wastewater applied in accordance with section 2 of this rule, turf grown on land where domestic wastewater is land applied shall not be harvested for one (1) year after application of the domestic wastewater if the harvested turf is placed on land with a high potential for public exposure.

(e) Public access to land with a low potential for public exposure shall be restricted for thirty (30) days after land application of domestic wastewater to that land.

(f) Grazing of animals on land that has received domestic wastewater is prohibited for thirty (30) days after application of the domestic wastewater.

(g) Pollutant-bearing water shall not be applied to the land:

- (1) if the pollutant-bearing water is likely to adversely affect a threatened or endangered species or its designated critical habitat; or
- (2) in violation of IC 14-22-34.

(h) Pollutant-bearing water shall not be applied to the land in violation of historic preservation requirements under IC 14-20-1.

(i) Application of pollutant-bearing water is prohibited if the moisture holding capacity of the soil is exceeded.

(j) Pollutant-bearing water may only be applied to the surface of land that is frozen or snow-covered if:

- (1) the pollutant-bearing water does not enter a wetland, surface waters, or ground water; and
- (2) a management plan has been submitted and approved by the commissioner, including the following:
  - (A) Setback distances from residences and public buildings, surface waters, wells, and other structures.
  - (B) Application rates.
  - (C) Site characteristics, including the following:
    - (i) Flood plains.
    - (ii) Slope.
  - (D) Supervision and operational oversight.
  - (E) Other applicable information to show that the land application will not violate this article.

(k) Pollutant-bearing water may only be applied in a flood plain if the pollutant-bearing water does not enter

a wetland, surface waters, or ground water. (*Water Pollution Control Board; 327 IAC 6.1-7-6; filed May 15, 1998, 10:20 a.m.: 21 IR 3808; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3625*)

### **327 IAC 6.1-7-7 Domestic wastewater treatment reliability criteria**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 7. The supervisor of a domestic sewage treatment works requiring disinfection equipment dependent upon electricity for operation shall submit documentation for approval by the commissioner demonstrating the ability to:

- (1) provide an alternative power source sufficient to operate pathogen reduction equipment to a degree that pathogen limitations detailed in section 2 or 3 of this rule are achieved;
- (2) upon the reduction, loss, or failure of power to the disinfection equipment, cease land application of domestic wastewater and cease discharge to a domestic wastewater storage structure used for land application of domestic wastewater for a period of seventy-two (72) hours; or
- (3) provide an effective alternate method of disinfection, sufficient to a degree that pathogen limitations detailed in section 2 or 3 of this rule are achieved, approved by the commissioner, that does not require electricity for proper operation.

(*Water Pollution Control Board; 327 IAC 6.1-7-7; filed May 15, 1998, 10:20 a.m.: 21 IR 3808; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-7-8 Prohibitions for pollutant-bearing water application**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 8. (a) Application is prohibited under environmental conditions that would result or are likely to result in pollutant-bearing water leaving the land application site.

(b) Land application of a pollutant-bearing water containing concentrations of polychlorinated biphenyls (PCBs) of two (2) milligrams per kilogram or greater on a dry weight basis is prohibited. (*Water Pollution Control Board; 327 IAC 6.1-7-8; filed May 15, 1998, 10:20 a.m.: 21 IR 3808; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 6.1-7-9 Storage of pollutant-bearing water for application**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 9. (a) A minimum of ninety (90) days effective storage capacity is required for a pollutant-bearing water unless an equivalent method of meeting the requirement is approved by the commissioner.

(b) Except for lagoons under 327 IAC 6.1-8, any storage structures that are subject to volume fluctuations due to precipitation events, must have a minimum of one (1) foot of freeboard at all times.

(c) Storage structures for the storage of pollutant-bearing water must be approved, constructed, installed, maintained, and closed in accordance with 327 IAC 6.1-8. (*Water Pollution Control Board; 327 IAC 6.1-7-9; filed May 15, 1998, 10:20 a.m.: 21 IR 3809; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3626*)

**327 IAC 6.1-7-10 Loading rates**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 10. (a) Maximum loading rates are determined for the pollutant-bearing water to be applied on the basis of the following parameters:

(1) Hydraulic loads must not exceed the rates established in Table 11 as follows and a rate of two (2) inches per seven (7) day period:

Table 11  
 Maximum Application Rates  
 Application Rate in Inches per Hour

Textural Class	Grass Sod	Cultivated
Sand	1.5	0.8
Loamy sand	1.3	0.7
Sandy loam	0.9	0.5
Fine sandy loam	0.8	0.5
Loam	0.7	0.4
Silt loam	0.7	0.4
Clay loam	0.6	0.3
Clay	0.5	0.2
Organic soils (muck)	1.0	1.0

(2) Organic loading for industrial process wastewaters must not exceed the following:

(A) One thousand four hundred (1,400) pounds per acre per week of total volatile solids as determined using Part 2540 G\*.

(B) Nine hundred thirty-three (933) pounds per acre per week of BOD as determined by a five (5) day BOD test.

(C) The commissioner may approve a higher loading rate if the commissioner determines that adequate documentation has been presented to show effective operation at higher loading rates.

(3) Available nitrogen loadings must not exceed either of the following:

(A) The limits in Table 5 in 327 IAC 6.1-4-10(a)(1)(A) for crop production as determined using the methodology for calculating available and residual nitrogen values in subsection (b).

(B) The nitrogen removal rate for the proposed crop to be grown on the land application site adjusted to account for application of fertilizers and manure and the presence of residual available nitrogen in the soil from previous applications of a biosolid, industrial waste product, or pollutant-bearing water.

(4) Phosphorus loading requirements may be included as a permit condition if the commissioner determines it is necessary for protection of public health or the environment.

(5) Annual heavy metal loadings must not exceed the limits in Table 4 in 327 IAC 6.1-4-9(d).

(6) Cumulative heavy metal loading must not exceed the limits in Table 2 in 327 IAC 6.1-4-9(b).

(b) The following formulas for PAN loading calculations apply to this article and must be used to calculate the amount of PAN in the pollutant-bearing water and the residual available nitrogen at the application site; all calculations are based on a wet weight basis in milligrams per liter:

(1) Total N = Total Kjeldahl N + Nitrate N

(2) Organic N = Total N - (Ammonia N + Nitrate N)

(3) Pounds Organic N applied per acre = 
$$\frac{(\text{Organic N}) \times (\text{gallons applied}) \times (8.34)}{(3.33) \times (1,000,000) \times (\text{acres applied to})}$$

(4) Pounds of Ammonia N applied per acre = 
$$\frac{(\text{Ammonia N}) \times (\text{gallons applied}) \times (8.34)}{(1,000,000) \times (\text{acres applied to})}$$

(5) Pounds of Nitrate N applied per acre = 
$$\frac{(\text{Nitrate N}) \times (\text{gallons applied}) \times (8.34)}{(1,000,000) \times (\text{acres applied to})}$$

(6) Pounds PAN applied per acre = Pounds of Organic N applied per acre + Pounds of Ammonia N applied per acre + Pounds of Nitrate N applied per acre

(7) Residual nitrogen from past biosolid or industrial waste products applications:

(A) Pounds of residual N available per acre after one (1) year =

$$\frac{(\text{Organic N}) \times (\text{gallons applied}) \times (8.34)}{(6.67) \times (1,000,000) \times (\text{acres applied to})}$$

(B) Pounds of residual N available per acre after two (2) years =

$$\frac{(\text{Organic N}) \times (\text{gallons applied}) \times (8.34)}{(12.5) \times (1,000,000) \times (\text{acres applied to})}$$

(C) Pounds of residual N available per acre after three (3) years =

$$\frac{(\text{Organic N}) \times (\text{gallons applied}) \times (8.34)}{(25) \times (1,000,000) \times (\text{acres applied to})}$$

Where: N = Nitrogen.

\*Part 2540 G may be found in "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, available from American Public Health Association, 1015 15th Street, N.W., Washington, D.C. 20005. This method is also available for copying at the Indiana Department of Environmental Management, Office of Land Quality, 100 North Senate Avenue, Room 1154, Indianapolis, Indiana 46204. (*Water Pollution Control Board; 327 IAC 6.1-7-10; filed May 15, 1998, 10:20 a.m.: 21 IR 3809; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3626*)

### 327 IAC 6.1-7-11 Records and record keeping

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-14-4-3; IC 13-15-2

Sec. 11. (a) Information regarding application rates and site conditions must be recorded daily or as otherwise specified in the permit by the person who prepares a pollutant-bearing water.

(b) The person who prepares a pollutant-bearing water shall record the applicable monitoring results and information required by sections 2(c), 3(e), and 4(b) of this rule. Such records must be:

(1) retained by the person who prepares the pollutant-bearing water for:

- (A) a minimum of five (5) years; or
  - (B) a longer time if required by the commissioner;
- and

(2) accessible to department representatives at the facility or other location approved by the commissioner.

(c) For pollutant-bearing water that is applied to any land application site under this rule, the following applies:

(1) The person who prepares the pollutant-bearing water shall retain the information in subdivision (3)(E), provided by the person who applies the pollutant-bearing water, for five (5) years.

(2) The person who prepares the pollutant-bearing water shall develop the following information and shall retain the information indefinitely:

(A) The cumulative amount of each pollutant in pounds per acre listed in Table 2 in 327 IAC 6.1-4-

9(b) in the pollutant-bearing water applied to each site.

(B) The information in subdivision (3)(A) through (3)(D) provided by the person who applies the pollutant-bearing water.

(3) For each day of land application of the pollutant-bearing water, the person who applies the pollutant-bearing water shall develop the following information and provide it to the person who prepares the pollutant-bearing water:

(A) The location, indicated on a site map, of each site that the pollutant-bearing water is applied.

(B) The number of acres to which pollutant-bearing water is applied.

(C) The date the pollutant-bearing water is applied to each site.

(D) The amount of pollutant-bearing water in gallons applied to each site.

(E) A description of how the site restrictions in section 5 of this rule and the management practices in section 6 of this rule are met for each site on which pollutant-bearing water is applied.

(*Water Pollution Control Board; 327 IAC 6.1-7-11; filed May 15, 1998, 10:20 a.m.: 21 IR 3810; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3627*)

### 327 IAC 6.1-7-12 Reports and reporting

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-14-4-3; IC 13-15

Sec. 12. (a) Activities and analyses related to land application of pollutant-bearing water must be reported:

- (1) to the commissioner within thirty (30) days of the last day of each month for the term of the permit; and
- (2) submitted on forms and in a format prescribed by the commissioner.

(b) The person who prepares the pollutant-bearing water shall notify the commissioner of the cumulative application on a land application site of any metal in Table 2 of 327 IAC 6.1-4-9(b) for the applied pollutant-bearing water in a quantity equal to or greater than ninety percent (90%) of the quantity specified in Table 2 of 327 IAC 6.1-4-9(b) within thirty (30) days after the ninety percent (90%) level is reached.

(c) The quantity of metals listed in Table 2 of 327 IAC 6.1-4-9(b) that is applied to the land application site will be forwarded by the commissioner to the county recorder of the county where the land application site is located for inclusion in the permanent land records when ninety percent (90%) of any metal is reached as per Table 2 of 327 IAC 6.1-4-9(b). (*Water Pollution Control Board;*

327 IAC 6.1-7-12; filed May 15, 1998, 10:20 a.m.: 21 IR 3810; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)

**Rule 7.5. Small Quantity Generators–Pollutant-Bearing Water**

327 IAC 6.1-7.5-1 Requirements for small quantity generator notification

**327 IAC 6.1-7.5-1 Requirements for small quantity generator notification**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-11-2-77; IC 13-30-2-1

Sec. 1. Land application of pollutant-bearing water that is excluded under 327 IAC 6.1-7-1(e) must comply with the following requirements:

(1) The person who prepares shall submit a written notification to the commissioner of the activity as follows:

(A) At least thirty (30) days before initial application of the pollutant-bearing water.

(B) Annually by January 31 of each subsequent year in which the pollutant-bearing water will be applied.

(C) The written notification on forms provided by the commissioner must contain the following information:

(i) The name and address of the person who prepares.

(ii) The name and address of the person who applies.

(iii) An analysis of the pollutant-bearing water that was completed within the past three hundred sixty-five (365) days, including the following:

(AA) Total nitrogen.

(BB) Ammonia nitrogen.

(CC) Nitrate nitrogen.

(DD) Phosphorus.

(EE) Potassium.

(FF) BOD.

(GG) Volatile solids.

(HH) pH.

(II) The pollutants listed in Table 10 of 327 IAC 6.1-7-1(d).

(iv) Location and specification of land application sites.

(D) Unless notified by the commissioner within thirty (30) days after submitting a written notification, the person who prepares the pollutant-bearing water and that submitted the written notification may begin applying the pollutant-bearing water in compliance with this rule.

(2) The person who prepares a pollutant-bearing water operating under this exclusion shall do the following:

(A) Retain all records regarding the pollutant-bearing water for a minimum of five (5) years.

(B) Provide for the records to be accessible to department representatives at the facility or, upon request, another location approved by the commissioner, provided the records are accessible to department representatives.

(C) Record the applicable monitoring results and information for the pollutant-bearing water.

(D) For each day of land application of the pollutant-bearing water, the person who applies the pollutant-bearing water shall develop the following information and provide it to the person who prepares the pollutant-bearing water:

(i) The location, indicated on a site map, of each site that the pollutant-bearing water is applied.

(ii) The number of acres to which pollutant-bearing water is applied.

(iii) The date the pollutant-bearing water is applied to each site.

(iv) The amount of pollutant-bearing water in gallons applied to each site.

(3) The person who prepares a pollutant-bearing water operating under this notification shall report activities and analyses related to land application of pollutant-bearing water to the commissioner within thirty (30) days of the last day of each month on forms provided by the commissioner.

(4) Pollutant-bearing water to be applied to land must be applied at least:

(A) two hundred (200) feet from potable water supply wells or drinking water springs;

(B) three hundred (300) feet from any surface waters or the surface conduit to a subsurface feature; and

(C) six hundred sixty (660) feet from any residence.

(5) The soil pH must be 5.5 or greater at the time the pollutant-bearing water is applied unless the commissioner determines that the soil pH should be higher to protect the environment or public health. The soil pH value shall be:

(A) obtained by sampling the soil to the depth of cultivation or depth of placement of the pollutant-bearing water, whichever is greater;

(B) analyzed by the electrometric method\*;

(C) collected as one (1) representative composite sample per every twenty-five (25) acres or fraction thereof within the application site; and

(D) valid only if the analyses were performed within the last two (2) years of the date of application on the site.

(6) Pollutant-bearing water must not be applied to land

unless there is a minimum depth of twenty (20) inches of soil overlying bedrock.

(7) Application of pollutant-bearing water on slopes greater than six percent (6%) is prohibited.

(8) For pollutant-bearing water, the following:

(A) A minimum of ninety (90) days effective storage capacity is required for a pollutant-bearing water unless an equivalent method of meeting the requirement is approved by the commissioner.

(B) Except for lagoons under 327 IAC 6.1-8, any storage structures, which are subject to volume fluctuations due to precipitation events, must have a minimum of one (1) foot of freeboard at all times.

(C) Storage structures for the storage of pollutant-bearing water must be constructed, installed, maintained, and closed in accordance with 327 IAC 6.1-8.

\*The electrometric method may be found in "Methods of Soil Analysis, Agronomy Monograph No. 9", C.A. Black, ed., American Society of Agronomy, Madison, Wisconsin, pp. 199-209, 1982, available from the American Society of Agronomy, Soil Science of America, Inc., 677 South Segoe Road, Madison, Wisconsin 53711. This method is also available for copying at the Indiana Department of Environmental Management, Office of Land Quality, 100 North Senate Avenue, Room 1154, Indianapolis, Indiana 46204. (*Water Pollution Control Board; 327 IAC 6.1-7.5-1; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3628*)

### Rule 8. Storage Structures

327 IAC 6.1-8-1	General requirements
327 IAC 6.1-8-2	Application procedures for permitting lagoons
327 IAC 6.1-8-3	Site restrictions for storage structures
327 IAC 6.1-8-4	Performance standards and construction standards for storage structures for liquid biosolid or industrial waste product, and pollutant-bearing water
327 IAC 6.1-8-5	Performance standards and construction standards for storage structures for dewatered biosolid and industrial waste product
327 IAC 6.1-8-6	Construction for lagoons
327 IAC 6.1-8-7	Operational requirements for storage structures
327 IAC 6.1-8-8	Closure of storage structures

#### 327 IAC 6.1-8-1 General requirements

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 1. (a) This rule applies to all storage structures for the storage of biosolid, industrial waste product, or pollutant-bearing water unless permitted, registered, or

notified under any of the following programs:

(1) The marketing and distribution program in 327 IAC 6.1-5.

(2) A wastewater treatment plant permitted under 327 IAC 3.

(3) A solid waste processing facility permitted under 329 IAC 11.

(4) A composting facility registered under 329 IAC 14.

(5) A permitted land disposal facility under 329 IAC 10.

(b) Storage structures for the storage of biosolid, industrial waste product, or pollutant-bearing water must be constructed, installed, maintained, and closed in accordance with this rule.

(c) Lagoons must not be constructed for the storage of biosolid, industrial waste product, or pollutant-bearing water except in accordance with sections 2 and 6 of this rule.

(d) Except for storage structures designated by subsection (e), storage structures for the storage of biosolid, industrial waste product, or pollutant-bearing water must be constructed or installed in compliance with this rule and with written notification to the commissioner at least thirty (30) days prior to construction or installation of the storage structure, to include the following:

(1) The location, indicated on a site map, of each storage structure.

(2) The name, address, and phone number of the property owner of all locations in subdivision (1).

(3) The name, address, and phone number of the person who prepares the biosolid, industrial waste product, or pollutant-bearing water to be stored at the locations.

(4) The design of the storage structure.

(5) The capacity of the storage structure.

(6) A description of the biosolid, industrial waste product, or pollutant-bearing water to be stored.

(e) The notification requirement in subsection (d) does not apply to any lagoons or to storage structures that use alternatives to:

(1) the site restrictions listed in section 3 of this rule; or

(2) the construction performance standards listed in section 4 or 5 of this rule.

Storage structures that use alternatives to the requirements listed in section 3, 4, or 5 of this rule must be permitted by the commissioner. Lagoons must be permitted under section 2 of this rule.

(f) Unless approved by the commissioner prior to June 14, 1998, as-built plans for lagoons constructed on or before June 14, 1998, must be submitted to the commissioner for a permit.

(g) A notification or a request for a permit for any storage structure under this rule must be accompanied by a signed statement from either the person who prepares

the biosolid, industrial waste product, or pollutant-bearing water or the property owner accepting responsibility for closure in compliance with section 8 of this rule. (*Water Pollution Control Board; 327 IAC 6.1-8-1; filed May 15, 1998, 10:20 a.m.: 21 IR 3811; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3629*)

### **327 IAC 6.1-8-2 Application procedures for permitting lagoons**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 2. (a) Requests for a permit for a lagoon must be submitted at least one hundred eighty (180) days prior to the intended date of construction.

(b) The permit application must be accompanied by plans, specifications, and sufficient information to indicate compliance with the requirements of this article. The applicant shall submit such additional information as may be required by the commissioner to make a determination.

(c) Plans and specifications for lagoons must be certified by a professional engineer registered in Indiana. (*Water Pollution Control Board; 327 IAC 6.1-8-2; filed May 15, 1998, 10:20 a.m.: 21 IR 3811; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3630*)

### **327 IAC 6.1-8-3 Site restrictions for storage structures**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 3. (a) Storage structures, except for lagoons, must not be constructed or maintained:

- (1) within one thousand (1,000) feet of any residence or public building;
- (2) within three hundred (300) feet of any surface waters or the surface conduit to a subsurface feature;
- (3) within two hundred (200) feet of any well;
- (4) in a flood plain; and
- (5) in a manner that allows the biosolid, industrial waste product, or pollutant-bearing water to enter surface waters or ground water.

(b) Lagoons must not be constructed or maintained:

- (1) within one thousand (1,000) feet of any:
  - (A) residence;
  - (B) public building; and
  - (C) property line;
- (2) within six hundred (600) feet of any surface waters or the surface conduit to a subsurface feature;

(3) within two hundred (200) feet of any well;

(4) in a flood plain; and

(5) in a manner that allows the biosolid, industrial waste product, or pollutant-bearing water to enter surface waters or ground water.

(c) The distance established in subsections (a)(1) and (b)(1) applies unless the written consent to shorten the distance is obtained from the property owner or the property owner and the dwelling occupant if the property owner and dwelling occupant are different persons. This written consent must be recorded as a notation on the deed to the property on which the storage structure is located or on some other instrument that is normally examined during title search. (*Water Pollution Control Board; 327 IAC 6.1-8-3; filed May 15, 1998, 10:20 a.m.: 21 IR 3811; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3630*)

### **327 IAC 6.1-8-4 Performance standards and construction standards for storage structures for liquid biosolid or industrial waste product, and pollutant-bearing water**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-18-12; IC 25-31.5-4

Sec. 4. Except for lagoons, storage structures for liquid biosolid or industrial waste product and for pollutant-bearing water must be constructed and maintained in accordance with the following:

- (1) The structure material and wall thickness must be adequate to contain the contents.
- (2) Steel tanks must be coated to prevent corrosion.
- (3) Structures constructed of materials other than steel must have prior approval of the commissioner and must be coated if necessary to prevent corrosion or afford further protection from leakage.
- (4) The storage structures must be adequately anchored, supported, and bedded to provide structural safety and prevent its movement.
- (5) The structure must be supported by a concrete base.
- (6) The bottom of any storage structure must be at least two (2) feet above the bedrock.
- (7) The bottom of the storage structure must be at least two (2) feet above the water table. The depth to the water table must be determined using:
  - (A) soil survey data established by the USDA Natural Resource Conservation Service; or
  - (B) information obtained from a professional soil scientist registered under IC 25-31.5-4;
 unless it can be demonstrated that the water table has

been or will be artificially lowered to two (2) feet or more from the bottom of the storage structure prior to use of the storage structure.

(8) Any discharge pipe from the storage structure must be equipped with a water-tight valve and a sanitary cap or plug.

(9) The storage structure must be of such construction or design as to allow inspection and sampling of the contents in the structure.

(10) The receiving or inlet facility or opening must be constructed or designed to prevent nuisance conditions, safety hazards, or the harborage and breeding of vectors.

(11) The structure must be constructed to prevent leaks and seepage and prevent spills that could enter surface waters or ground water.

*(Water Pollution Control Board; 327 IAC 6.1-8-4; filed May 15, 1998, 10:20 a.m.: 21 IR 3812; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3630)*

**327 IAC 6.1-8-5 Performance standards and construction standards for storage structures for dewatered biosolid and industrial waste product**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 5. Except for lagoons, a storage structure for dewatered biosolid or industrial waste product must:

(1) have an impermeable base designed to support the stored dewatered biosolid or industrial waste product and the equipment utilized in handling the stored dewatered biosolid or industrial waste product;

(2) have leak-proof side walls at least three (3) feet in height or as otherwise approved by the commissioner;

(3) be designed and constructed to prevent contact with precipitation or to contain any contaminated storm water;

(4) be of such construction or design as to allow inspection and sampling of the contents;

(5) be constructed or designed to prevent nuisance conditions, safety hazards, or the harborage and breeding of vectors; and

(6) be constructed to prevent leaks and seepage and prevent spills that could enter surface waters or ground water.

*(Water Pollution Control Board; 327 IAC 6.1-8-5; filed May 15, 1998, 10:20 a.m.: 21 IR 3812; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3631)*

**327 IAC 6.1-8-6 Construction for lagoons**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-18-12; IC 25-31.5-4

Sec. 6. Lagoons must be constructed and maintained in accordance with the following:

(1) The lagoon bottom must be a minimum distance of ten (10) feet above the bedrock and four (4) feet above the water table. The depth to the water table must be determined using:

(A) soil survey data established by the USDA Natural Resource Conservation Service; or

(B) information obtained from a professional soil scientist registered under IC 25-31.5-4;

unless it can be demonstrated that the water table has been artificially lowered to four (4) feet or more from the bottom of the lagoon.

(2) The lagoon bottom and walls must meet the design standards in "Recommended Standards for Wastewater Facilities"\*.

(3) The lagoon bottom must be level.

(4) Slopes of earthen dikes must not be steeper than 1 vertical to 3 horizontal (1:3).

(5) Minimum earthen dike top width must be at least eight (8) feet.

(6) An all-weather off-loading area with drainage to the lagoon must be provided at any point where the truck contents are off-loaded into the lagoon or receiving facilities.

(7) Lagoons must be constructed in a manner to prevent entry of storm water from surrounding areas.

(8) Lagoons must be constructed to prevent leaks and seepage and prevent spills that could enter surface waters or ground water.

\*The lagoon bottom and walls design standards may be found in "Recommended Standards for Wastewater Facilities", 1990 Edition, available from Health Education Services, P.O. Box 7126, Albany, New York 12224, Chapter 90, Pond Bottom, pages 90-19 to 90-20. This method is also available for copying at the Indiana Department of Environmental Management, Office of Land Quality, 100 North Senate Avenue, Room 1154, Indianapolis, Indiana 46204. *(Water Pollution Control Board; 327 IAC 6.1-8-6; filed May 15, 1998, 10:20 a.m.: 21 IR 3812; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3631)*

**327 IAC 6.1-8-7 Operational requirements for storage structures**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 7. (a) The storage structure must be maintained and operated to prevent any nuisance or health hazards as follows:

- (1) Unauthorized access to the storage structure must be prevented by locks or the facility must be adequately fenced and posted.
- (2) Storage structures must be maintained such that there is no discharge or seepage of biosolid, industrial waste product, or pollutant-bearing water from the storage structure other than controlled removal for final disposal or land application of the biosolid, industrial waste product, or pollutant-bearing water.
- (3) Storage structures must be maintained to prevent nuisance conditions, safety hazards, or the harborage and breeding of vectors.
- (4) Storage structures must be maintained such that there is no discharge of pollutants into the surface waters or ground water.

(b) The lagoon must be maintained and operated in accordance with the following:

- (1) Earthen dikes must be maintained free of weeds, burrowing animals, and other conditions that may undermine the integrity of the dikes.
- (2) Earthen dikes and banks must be seeded with grass to provide cover to prevent erosion.
- (3) The lagoon location must be posted, fenced, or otherwise secured to prevent access by unauthorized persons and livestock.
- (4) The minimum freeboard must be eighteen (18) inches at all times.

*(Water Pollution Control Board; 327 IAC 6.1-8-7; filed May 15, 1998, 10:20 a.m.: 21 IR 3813; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3632)*

### **327 IAC 6.1-8-8 Closure of storage structures**

**Authority:** IC 13-14-8-7; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 8. In the event a storage structure ceases to be operated or used for more than two (2) years, it is the responsibility of the person who signed the statement submitted in accordance with section 1(h) of this rule to close the storage structure properly. The following steps are required:

- (1) The commissioner shall be notified at least thirty (30) days in advance that the storage site is to be closed.
- (2) The contents of a storage structure must be disposed of in a manner consistent with this article and as required by the commissioner.
- (3) A lagoon must be either:

(A) leveled or filled with earth and its appurtenances removed; or

(B) cleaned and closed in an alternative manner that has been approved by the commissioner.

(4) Except for lagoons, a storage structure must be dismantled and removed or its interior filled with earth.

(5) The site shall be returned approximately to its natural contours and be mounded to allow for settling and to divert surface waters.

(6) Documentation indicating that the requirements of this section have been met must be sent to the commissioner within thirty (30) days of the completion of closure.

*(Water Pollution Control Board; 327 IAC 6.1-8-8; filed May 15, 1998, 10:20 a.m.: 21 IR 3813; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518; filed Jul 7, 2003, 4:25 p.m.: 26 IR 3632)*

## **ARTICLE 7. MANAGEMENT OF SEWAGE DISPOSAL SYSTEM WASTEWATER**

Rule 1. General Provisions *(Repealed)*

Rule 2. Wastewater Management Permits

Rule 3. Service Procedure; Records; Safety and Nuisances *(Repealed)*

Rule 4. Vehicle Licenses

Rule 5. Disposal; General Requirements *(Repealed)*

Rule 6. Land Application *(Repealed)*

Rule 7. Wastewater Storage Facilities *(Repealed)*

Rule 8. Local Health Departments as Agents *(Repealed)*

### **Rule 1. General Provisions *(Repealed)***

*(Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)*

### **Rule 2. Wastewater Management Permits**

327 IAC 7-2-1 Permit requirement *(Repealed)*

327 IAC 7-2-2 Application for permit *(Repealed)*

327 IAC 7-2-3 Requirements for the issuance of a permit *(Repealed)*

327 IAC 7-2-4 Restricted permits *(Repealed)*

327 IAC 7-2-5 Permit conditions *(Repealed)*

327 IAC 7-2-6 Wastewater management permit fee *(Repealed)*

327 IAC 7-2-7 Duration of permits *(Repealed)*

### **327 IAC 7-2-1 Permit requirement *(Repealed)***

*Sec. 1. (Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)*

### **327 IAC 7-2-2 Application for permit *(Repealed)***

*Sec. 2. (Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)*

**327 IAC 7-2-3 Requirements for the issuance of a permit (Repealed)**

Sec. 3. (Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)

**327 IAC 7-2-4 Restricted permits (Repealed)**

Sec. 4. (Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)

**327 IAC 7-2-5 Permit conditions (Repealed)**

Sec. 5. (Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)

**327 IAC 7-2-6 Wastewater management permit fee (Repealed)**

Sec. 6. (Repealed by Water Pollution Control Board; filed Sep 3, 1996, 3:00 p.m.: 20 IR 12)

**327 IAC 7-2-7 Duration of permits (Repealed)**

Sec. 7. (Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)

**Rule 3. Service Procedure; Records; Safety and Nuisances (Repealed)**

(Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)

**Rule 4. Vehicle Licenses**

- 327 IAC 7-4-1 Vehicle license requirement (Repealed)
- 327 IAC 7-4-2 Application for license (Repealed)
- 327 IAC 7-4-3 Requirements for the issuance of a license (Repealed)
- 327 IAC 7-4-4 Restricted licenses (Repealed)
- 327 IAC 7-4-5 License conditions (Repealed)
- 327 IAC 7-4-6 Vehicle and equipment requirements (Repealed)
- 327 IAC 7-4-7 Surface spreading vehicles (Repealed)
- 327 IAC 7-4-8 Vehicle identification (Repealed)
- 327 IAC 7-4-9 Vehicle license fee (Repealed)
- 327 IAC 7-4-10 Duration of licenses (Repealed)
- 327 IAC 7-4-11 Interim licenses (Repealed)

**327 IAC 7-4-1 Vehicle license requirement (Repealed)**

Sec. 1. (Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)

**327 IAC 7-4-2 Application for license (Repealed)**

Sec. 2. (Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)

**327 IAC 7-4-3 Requirements for the issuance of a license (Repealed)**

Sec. 3. (Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)

**327 IAC 7-4-4 Restricted licenses (Repealed)**

Sec. 4. (Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)

**327 IAC 7-4-5 License conditions (Repealed)**

Sec. 5. (Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)

**327 IAC 7-4-6 Vehicle and equipment requirements (Repealed)**

Sec. 6. (Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)

**327 IAC 7-4-7 Surface spreading vehicles (Repealed)**

Sec. 7. (Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)

**327 IAC 7-4-8 Vehicle identification (Repealed)**

Sec. 8. (Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)

**327 IAC 7-4-9 Vehicle license fee (Repealed)**

Sec. 9. (Repealed by Water Pollution Control Board; filed Sep 3, 1996, 3:00 p.m.: 20 IR 12)

**327 IAC 7-4-10 Duration of licenses (Repealed)**

Sec. 10. (Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)

**327 IAC 7-4-11 Interim licenses (Repealed)**

Sec. 11. (Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)

**Rule 5. Disposal; General Requirements (Repealed)**

*(Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)*

**Rule 6. Land Application (Repealed)**

*(Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)*

**Rule 7. Wastewater Storage Facilities (Repealed)**

*(Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)*

**Rule 8. Local Health Departments as Agents (Repealed)**

*(Repealed by Water Pollution Control Board; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739)*

**ARTICLE 7.1. WASTEWATER MANAGEMENT**

- Rule 1. General Provisions
- Rule 2. Definitions
- Rule 3. Permits, Licenses, and Approvals
- Rule 4. Wastewater Management Permits
- Rule 5. Vehicle Licenses
- Rule 6. Licensed Vehicle Operation
- Rule 7. Wastewater Disposal
- Rule 8. Land Application; General Requirements

**Rule 1. General Provisions**

- 327 IAC 7.1-1-1 Purpose
- 327 IAC 7.1-1-2 Right of entry
- 327 IAC 7.1-1-3 Applicability; incorporation by reference
- 327 IAC 7.1-1-4 Enforcement
- 327 IAC 7.1-1-5 Penalties

**327 IAC 7.1-1-1 Purpose**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 1. This article establishes procedures, requirements, and standards for the management of wastewater from sewage disposal systems regarding the following:

- (1) Cleaning of sewage disposal systems.
- (2) Transport of wastewater.
- (3) Storage of wastewater.
- (4) Treatment of wastewater.
- (5) Disposal of wastewater.

*(Water Pollution Control Board; 327 IAC 7.1-1-1; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3717)*

**327 IAC 7.1-1-2 Right of entry**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-14-2-2; IC 13-14-5; IC 13-18-12-6

Sec. 2. Under IC 13-18-12-6(c), the commissioner may make inspections in accordance with IC 13-14-2-2 and IC 13-14-5. *(Water Pollution Control Board; 327 IAC 7.1-1-2; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3717)*

**327 IAC 7.1-1-3 Applicability; incorporation by reference**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12-7

Sec. 3. (a) This article applies to all persons who provide or engage in wastewater management.

(b) The following do not involve wastewater as defined in 327 IAC 7.1-2-41, and therefore this article does not apply to these activities:

- (1) Land application activities that are regulated under 327 IAC 6.1.
- (2) Waste management activities that are regulated under rules of the solid waste management board at 329 IAC 3.1, 329 IAC 10, 329 IAC 11, 329 IAC 12, and 329 IAC 13.
- (3) Management of animal manure.

(c) This article does not require a wastewater management permit or a vehicle license for the transportation of wastewater from the point of its removal to another location on the same site or tract owned by the same person if the wastewater was generated on the same site or tract owned by the same person and either of the following applies:

- (1) Both of the following:
  - (A) A facility on the same site or tract owned by the same person has a valid permit under 327 IAC 5 implementing the National Pollutant Discharge Elimination System which includes provisions for the management of wastewater.
  - (B) The wastewater is blended with industrial process wastewater, as defined in 327 IAC 6.1-2-28, at the permitted facility.
- (2) Both of the following:
  - (A) A facility on the same site or tract owned by the same person has a valid permit under 327 IAC 3-4 regarding operational permits.
  - (B) The wastewater is blended with industrial process wastewater as defined in 327 IAC 6.1-2-28, at the permitted facility.

(d) Solid waste generated by the permitted facility described in subsection (c) must be disposed of in accordance with 327 IAC 6.1 or the rules of the solid waste management board at 329 IAC 10.

(e) The following documents of the U.S. Environmental Protection Agency are incorporated by reference:

- (1) Appendix I of 40 CFR 257, revised as of July 1, 2001.

(2) Method 9095 (Paint Filter Liquids Test), as described in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, EPA Publication SW-846 [Third Edition, November 1986, as amended by Updates 1 (July 1992), 2 (September 1994), 2A (August 1993), and 2B (January 1995)].

(3) Appendix II A of 40 CFR 257, revised as of July 1, 2001.

(4) 40 CFR 257.3-5(a)(1) and 40 CFR 257.3-5(c), revised as of July 1, 2001.

(5) 50 CFR 17.11 and 50 CFR 17.12, revised as of October 1, 2001.

(6) Areas located in Indiana contained in 50 CFR 17.95 and 50 CFR 17.96, revised as of October 1, 2001.

(f) The Code of Federal Regulations and Publication SW-846 are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The telephone number for the Superintendent of Documents is (202) 512-1800. (*Water Pollution Control Board; 327 IAC 7.1-1-3; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3717; errata filed Aug 9, 2002, 10:16 a.m.: 25 IR 4113*)

### 327 IAC 7.1-1-4 Enforcement

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-14-2-6; IC 13-14-10; IC 13-18-12-6.5; IC 13-30-3

Sec. 4. This article is enforced under IC 13-30-3. (*Water Pollution Control Board; 327 IAC 7.1-1-4; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3718*)

### 327 IAC 7.1-1-5 Penalties

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12; IC 13-30

Sec. 5. Penalties for violation of this article are provided for at:

- (1) IC 13-30-4.
- (2) IC 13-30-5.
- (3) IC 13-30-6.
- (4) IC 13-30-8.

(*Water Pollution Control Board; 327 IAC 7.1-1-5; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3718*)

## Rule 2. Definitions

- 327 IAC 7.1-2-1 Applicability
- 327 IAC 7.1-2-2 “Agricultural land” defined
- 327 IAC 7.1-2-3 “Animal feed” defined
- 327 IAC 7.1-2-4 “Applicant” defined
- 327 IAC 7.1-2-5 “Base flood or one hundred (100) year flood” defined
- 327 IAC 7.1-2-6 “Chemical toilet” defined
- 327 IAC 7.1-2-7 “Contaminate” defined

327 IAC 7.1-2-8 “Critical habitat” defined

327 IAC 7.1-2-9 “Destruction or adverse modification” defined

327 IAC 7.1-2-10 “Disease vector” defined

327 IAC 7.1-2-11 “Domestic septage” defined

327 IAC 7.1-2-12 “Drainage inlet” defined

327 IAC 7.1-2-13 “Endangered or threatened species” defined

327 IAC 7.1-2-14 “Flood plain” defined

327 IAC 7.1-2-15 “Food crops” defined

327 IAC 7.1-2-16 “Grease” defined

327 IAC 7.1-2-17 “Historic site” defined

327 IAC 7.1-2-18 “Incorporated into the soil” defined

327 IAC 7.1-2-19 “Injection” defined

327 IAC 7.1-2-20 “Intermittent waterway” defined

327 IAC 7.1-2-21 “Land with a low potential for public exposure” defined

327 IAC 7.1-2-22 “Liquid waste” defined

327 IAC 7.1-2-23 “Mixed load” defined

327 IAC 7.1-2-24 “Operator” defined

327 IAC 7.1-2-25 “Owner” defined

327 IAC 7.1-2-26 “Pasture” defined

327 IAC 7.1-2-27 “Person” defined

327 IAC 7.1-2-28 “Pesticide” defined

327 IAC 7.1-2-29 “Petroleum based” defined

327 IAC 7.1-2-30 “pH” defined

327 IAC 7.1-2-31 “Potable” defined

327 IAC 7.1-2-32 “Public water supply surface intake structure” defined

327 IAC 7.1-2-33 “Public water supply well” defined

327 IAC 7.1-2-34 “Sensitive area” defined

327 IAC 7.1-2-35 “Set aside” or “idle” defined

327 IAC 7.1-2-36 “Sewage disposal system” defined

327 IAC 7.1-2-37 “Surface application” defined

327 IAC 7.1-2-38 “Taking” defined

327 IAC 7.1-2-39 “Type III marine sanitation device” defined

327 IAC 7.1-2-40 “Unauthorized” defined

327 IAC 7.1-2-41 “Wastewater” defined

327 IAC 7.1-2-42 “Wastewater management” defined

### 327 IAC 7.1-2-1 Applicability

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-11-2; IC 13-18-12

Sec. 1. The definitions in IC 13-11-2 apply to this article. In addition to the definitions in IC 13-11-2, the definitions in this rule apply throughout this article. (*Water Pollution Control Board; 327 IAC 7.1-2-1; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3718*)

### 327 IAC 7.1-2-2 “Agricultural land” defined

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 2. “Agricultural land” means land on which a food crop, a feed crop, or a fiber crop is grown. The term includes land used as pasture. (*Water Pollution Control Board; 327 IAC 7.1-2-2; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3718*)

**327 IAC 7.1-2-3 “Animal feed” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 3. “Animal feed” means any crop grown for consumption by animals, such as forage and grain. (*Water Pollution Control Board; 327 IAC 7.1-2-3; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3718*)

**327 IAC 7.1-2-4 “Applicant” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 4. “Applicant” means a person who applies for any or all of the following:

- (1) A wastewater management permit.
- (2) A wastewater vehicle license.
- (3) An approval for land application of wastewater.

(*Water Pollution Control Board; 327 IAC 7.1-2-4; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3718*)

**327 IAC 7.1-2-5 “Base flood or one hundred (100) year flood” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 5. “Base flood or one hundred (100) year flood” means a flood of a magnitude equaled or exceeded, on the average, once in one hundred (100) years. (*Water Pollution Control Board; 327 IAC 7.1-2-5; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3718*)

**327 IAC 7.1-2-6 “Chemical toilet” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 6. “Chemical toilet” means a toilet manufactured to receive nonwater-carried human waste directly into a deodorizing and liquefying chemical in a leakproof tank. (*Water Pollution Control Board; 327 IAC 7.1-2-6; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3718*)

**327 IAC 7.1-2-7 “Contaminate” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 7. “Contaminate” means introducing a substance that would cause one (1) of the following:

- (1) The concentration of that substance in any drinking water source to exceed the maximum contaminant level specified in Appendix I of 40 CFR 257.
- (2) An increase in the concentration of that substance in any drinking water source where the existing concentration of that substance exceeds the maximum contaminant level specified in Appendix I of 40 CFR 257.

(*Water Pollution Control Board; 327 IAC 7.1-2-7; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3718*)

**327 IAC 7.1-2-8 “Critical habitat” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 8. “Critical habitat” means areas located in Indiana and contained in 50 CFR 17.95 and 50 CFR 17.96. (*Water Pollution Control Board; 327 IAC 7.1-2-8; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3719*)

**327 IAC 7.1-2-9 “Destruction or adverse modification” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 9. “Destruction or adverse modification” means a direct or indirect alteration of critical habitat that appreciably diminishes the likelihood of the survival and recovery of endangered or threatened species using that habitat. (*Water Pollution Control Board; 327 IAC 7.1-2-9; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3719*)

**327 IAC 7.1-2-10 “Disease vector” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 10. “Disease vector” means any rodents, flies, mosquitoes, or other animals, including insects, capable of transmitting micro-organisms and disease to humans and other animals. (*Water Pollution Control Board; 327 IAC 7.1-2-10; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3719*)

**327 IAC 7.1-2-11 “Domestic septage” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 11. “Domestic septage” means the following:

- (1) Human excreta, water, scum, sludge, and sewage from sewage disposal systems, or retained contents of wastewater holding tanks.
- (2) Wastes carried in liquid from ordinary living processes.
- (3) Incidental or accidental seepage from sewage disposal systems.

The term does not include contents from chemical toilets, or Type III marine sanitation devices. (*Water Pollution Control Board; 327 IAC 7.1-2-11; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3719*)

**327 IAC 7.1-2-12 “Drainage inlet” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 12. “Drainage inlet” means any surficial opening to an underground tile drainage system that drains to waters of the state. For purposes of this article, the term includes water and sediment control basins. (*Water Pollution Control Board; 327 IAC 7.1-2-12; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3719*)

**327 IAC 7.1-2-13 “Endangered or threatened species” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 13. “Endangered or threatened species” means any species listed as such under 50 CFR 17.11 or 50 CFR 17.12. (*Water Pollution Control Board; 327 IAC 7.1-2-13; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3719*)

**327 IAC 7.1-2-14 “Flood plain” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 14. “Flood plain” means the lowland and relatively flat areas adjoining inland and coastal waters, including flood prone areas of offshore islands, which are inundated by a base flood. (*Water Pollution Control Board; 327 IAC 7.1-2-14; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3719*)

**327 IAC 7.1-2-15 “Food crops” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 15. “Food crops” means tobacco, crops grown for human consumption, and animal feed for animals whose products are consumed by humans. (*Water Pollution Control Board; 327 IAC 7.1-2-15; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3719*)

**327 IAC 7.1-2-16 “Grease” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 16. “Grease” means grease, fats, and retained wastes from grease traps or interceptors. (*Water Pollution Control Board; 327 IAC 7.1-2-16; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3719*)

**327 IAC 7.1-2-17 “Historic site” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 14-8-2-125

Sec. 17. “Historic site” has the meaning set forth in IC 14-8-2-125. (*Water Pollution Control Board; 327 IAC 7.1-2-17; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3719*)

**327 IAC 7.1-2-18 “Incorporated into the soil” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 18. “Incorporated into the soil” means the mixing of domestic septage, grease, or mixed load with the surface soil, using standard agricultural practices such as tillage. (*Water Pollution Control Board; 327 IAC 7.1-2-18; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3719*)

**327 IAC 7.1-2-19 “Injection” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 19. “Injection” means the placement of domestic septage, grease, or mixed load beneath the surface of the soil in the crop root zone, using equipment specifically designed for this purpose. (*Water Pollution Control Board; 327 IAC 7.1-2-19; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3720*)

**327 IAC 7.1-2-20 “Intermittent waterway” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 20. “Intermittent waterway” means a waterway that flows only at certain times of the year, as when it receives water from springs or from some surface source. The waterway does not flow continuously, as when water losses from evaporation or seepage exceed the available waterway flow. (*Water Pollution Control Board; 327 IAC 7.1-2-20; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3720*)

**327 IAC 7.1-2-21 “Land with a low potential for public exposure” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 21. (a) “Land with a low potential for public exposure” means land that:

- (1) has restricted access;
- (2) is inaccessible to the public; or
- (3) is not used by the public during normal work or recreational activities.

(b) Examples include, but are not limited to, the following:

- (1) Agricultural land.
- (2) Forests.
- (3) Solid waste land disposal facilities as defined in the rules of the solid waste management board at 329 IAC 10-2-176.
- (4) Strip mines not located in a populated area or accessible to the public.

(5) Industrial sites not located in a populated area or accessible to the public.

(6) Construction sites not located in a populated area or accessible to the public.

(*Water Pollution Control Board; 327 IAC 7.1-2-21; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3720*)

### **327 IAC 7.1-2-22 “Liquid waste” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 22. “Liquid waste” means any waste material that contains free liquids as determined by Method 9095 (Paint Filter Liquids Test), as described in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, EPA Publication SW-846 [Third Edition, November 1986, as amended by Updates 1 (July 1992), 2 (September 1994), 2A (August 1993), and 2B (January 1995)]. (*Water Pollution Control Board; 327 IAC 7.1-2-22; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3720*)

### **327 IAC 7.1-2-23 “Mixed load” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 23. “Mixed load” means a mixture of any quantity of domestic septage with any quantity of grease. (*Water Pollution Control Board; 327 IAC 7.1-2-23; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3720*)

### **327 IAC 7.1-2-24 “Operator” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 24. “Operator” means the person responsible for the operation of any of the following:

- (1) Wastewater management business.
- (2) Wastewater management vehicle.
- (3) Wastewater treatment facility.
- (4) Wastewater storage facility.
- (5) Wastewater land application site.

(*Water Pollution Control Board; 327 IAC 7.1-2-24; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3720*)

### **327 IAC 7.1-2-25 “Owner” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 25. “Owner” means the person who owns any of the following:

- (1) Wastewater management business.
- (2) Vehicle used for wastewater management activities.
- (3) Wastewater treatment facility.

(4) Wastewater storage facility.

(5) Wastewater land application site.

(*Water Pollution Control Board; 327 IAC 7.1-2-25; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3720*)

### **327 IAC 7.1-2-26 “Pasture” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 26. “Pasture” means land on which animals feed directly on feed crops, such as legumes, grasses, grain stubble, or fodder. (*Water Pollution Control Board; 327 IAC 7.1-2-26; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3720*)

### **327 IAC 7.1-2-27 “Person” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-11-2-158; IC 13-18-12

Sec. 27. “Person” has the meaning set forth in IC 13-11-2-158(a). (*Water Pollution Control Board; 327 IAC 7.1-2-27; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3720*)

### **327 IAC 7.1-2-28 “Pesticide” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 28. “Pesticide” means any substance that:

(1) is commercially produced, marketed, or sold to control insects, rodents, nematodes, fungus, or weeds; and

(2) is regulated by the state chemist’s office under rules of the state chemist’s office at 355 IAC 4 and 355 IAC 5, or by the U.S. Environmental Protection Agency, under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, 7 U.S.C. Section 136.

(*Water Pollution Control Board; 327 IAC 7.1-2-28; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3721*)

### **327 IAC 7.1-2-29 “Petroleum based” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 29. “Petroleum based” means crude oil and substances derived from crude oil through processes such as separation, conversion, and finishing, that are liquid at ambient condition of temperature and pressure comprised of a complex blend of hydrocarbons, including, but not limited to, the following:

- (1) Motor fuel.
- (2) Jet fuel.
- (3) Mineral oil.
- (4) Lubricants.
- (5) Petroleum solvents.
- (6) Used oil.

(*Water Pollution Control Board; 327 IAC 7.1-2-29; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3721*)

**327 IAC 7.1-2-30 “pH” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 30. “pH” means the logarithm of the reciprocal of hydrogen ion concentration. (*Water Pollution Control Board; 327 IAC 7.1-2-30; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3721*)

**327 IAC 7.1-2-31 “Potable” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 31. “Potable” means fit to drink. (*Water Pollution Control Board; 327 IAC 7.1-2-31; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3721*)

**327 IAC 7.1-2-32 “Public water supply surface intake structure” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 32. “Public water supply surface intake structure” means any structure used for the purpose of providing water through a public water supply system. (*Water Pollution Control Board; 327 IAC 7.1-2-32; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3721*)

**327 IAC 7.1-2-33 “Public water supply well” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 33. “Public water supply well” means any well that provides water to the public through a water distribution system that:

- (1) serves at least twenty-five (25) persons per day for:
  - (A) drinking;
  - (B) domestic use; or
  - (C) other purposes; or
- (2) has at least fifteen (15) service connections.

(*Water Pollution Control Board; 327 IAC 7.1-2-33; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3721*)

**327 IAC 7.1-2-34 “Sensitive area” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12; IC 14-31; IC 14-38-1-5

Sec. 34. “Sensitive area” means a site where land application of domestic septage, a mixed load, or grease poses a specific water quality threat to one (1) or more of the following:

- (1) Aquifers used as a source of drinking water.
- (2) Public water supply wells.
- (3) Wellhead protection areas.
- (4) Drinking water supply reservoirs.
- (5) Areas requiring special protection from a threat to water quality or because of the area’s aesthetic value to the citizens of Indiana, such as:
  - (A) wetlands;
  - (B) karst terrains;
  - (C) the critical habitat of an endangered or threatened species; or
  - (D) natural areas, including:
    - (i) parks;
    - (ii) nature preserves as regulated under IC 14-31;
    - (iii) historic sites as defined in section 17 of this rule; and
    - (iv) public lands as defined in IC 14-38-1-5.

(*Water Pollution Control Board; 327 IAC 7.1-2-34; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3721*)

**327 IAC 7.1-2-35 “Set aside” or “idle” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 35. “Set aside” or “idle” means agricultural land upon which no crop is grown during the crop season. (*Water Pollution Control Board; 327 IAC 7.1-2-35; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3721*)

**327 IAC 7.1-2-36 “Sewage disposal system” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-11-2-201; IC 13-18-12

Sec. 36. “Sewage disposal system”, as defined in IC 13-11-2-201, means septic tanks, wastewater holding tanks, seepage pits, cesspools, privies, composting toilets, interceptors or grease traps, portable sanitary units, and other equipment, facilities, or devices used to:

- (1) store;
- (2) treat;
- (3) make inoffensive; or
- (4) dispose of;

human excrement or liquid carrying wastes of a domestic nature. (*Water Pollution Control Board; 327 IAC 7.1-2-36; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3722*)

**327 IAC 7.1-2-37 “Surface application” defined**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 37. “Surface application” means the placement of wastewater by spraying or spreading onto the land surface. (*Water Pollution Control Board; 327 IAC 7.1-2-37; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3722*)

**327 IAC 7.1-2-38 “Taking” defined**

Authority: IC 13-14-8; IC 13-18-12-4  
 Affected: IC 13-18-12

Sec. 38. “Taking” means harassing, harming, pursuing, hunting, wounding, killing, capturing, or collecting or attempting to engage in such conduct. (*Water Pollution Control Board; 327 IAC 7.1-2-38; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3722*)

**327 IAC 7.1-2-39 “Type III marine sanitation device” defined**

Authority: IC 13-14-8; IC 13-18-12-4  
 Affected: IC 13-18-12

Sec. 39. “Type III marine sanitation device” means any equipment installed on board a vessel which is designed to receive, retain, treat, or discharge sewage, and any process to treat such sewage. The device or process must be designed to prevent the over board discharge of treated or untreated sewage or any waste derived from sewage. (*Water Pollution Control Board; 327 IAC 7.1-2-39; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3722*)

**327 IAC 7.1-2-40 “Unauthorized” defined**

Authority: IC 13-14-8; IC 13-18-12-4  
 Affected: IC 13-18-12

Sec. 40. “Unauthorized” means that which is prohibited by permit, license, or approval conditions or Indiana or federal statutes or regulations. (*Water Pollution Control Board; 327 IAC 7.1-2-40; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3722*)

**327 IAC 7.1-2-41 “Wastewater” defined**

Authority: IC 13-14-8; IC 13-18-12-4  
 Affected: IC 13-11-2-256; IC 13-18-12

Sec. 41. “Wastewater”, as defined in IC 13-11-2-256, means the following:

- (1) Human excreta, water, scum, sludge, and sewage from the sewage disposal systems, retained contents of wastewater holding tanks, or portable sanitary units.
- (2) Grease, fats, and retained wastes from grease traps or interceptors.
- (3) Wastes carried in liquid from ordinary living processes.
- (4) Incidental or accidental seepage from sewage disposal systems.

Grease, domestic septage, and a mixed load are all forms of wastewater. (*Water Pollution Control Board; 327 IAC 7.1-2-41; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3722*)

**327 IAC 7.1-2-42 “Wastewater management” defined**

Authority: IC 13-14-8; IC 13-18-12-4  
 Affected: IC 13-11-2-257; IC 13-18-12

Sec. 42. “Wastewater management”, as defined in IC 13-11-2-257, means the following:

- (1) The cleaning of sewage disposal systems.
- (2) The transportation, storage, treatment, or disposal of wastewater.

(*Water Pollution Control Board; 327 IAC 7.1-2-42; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3722*)

**Rule 3. Permits, Licenses, and Approvals**

- 327 IAC 7.1-3-1 General requirements
- 327 IAC 7.1-3-2 Revocation and modification
- 327 IAC 7.1-3-3 Records; access to information

**327 IAC 7.1-3-1 General requirements**

Authority: IC 13-14-8; IC 13-18-12-4  
 Affected: IC 13-18-12

Sec. 1. Any person providing or engaging in wastewater management shall comply with the following:

- (1) Unless exempted by IC 13-18-12-7, possess a valid wastewater management permit, in addition to any of the following that are applicable as required by this article:

- (A) A valid license for any vehicle used for wastewater management activities.
- (B) A valid approval for land application of wastewater.

- (2) Comply with all applicable requirements of IC 13-18-12 and this article.

(*Water Pollution Control Board; 327 IAC 7.1-3-1; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3722*)

**327 IAC 7.1-3-2 Revocation and modification**

Authority: IC 13-14-8; IC 13-18-12-4  
 Affected: IC 13-18-12-6.5

Sec. 2. The commissioner or a designee may revoke or modify a permit, license, or approval issued by the commissioner in accordance with IC 13-18-12-6.5. (*Water Pollution Control Board; 327 IAC 7.1-3-2; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3722*)

**327 IAC 7.1-3-3 Records; access to information**

Authority: IC 13-14-8; IC 13-18-12-4  
 Affected: IC 13-14-2-2; IC 13-18-12

Sec. 3. (a) Each permitted wastewater management business shall keep accurate records of activities governed by this article.

(b) The records must include the following:

(1) The contract or invoice of all wastewater management activities.

(2) The date, location, and method of disposal of wastewater associated with the contract or invoice as required by 327 IAC 7.1-6-1(b).

(3) Land application records as required by 327 IAC 7.1-8-7.

(c) Such records must be:

(1) located at the permitted wastewater management business address;

(2) made available to representatives of the commissioner during normal business hours for inspection as set forth in IC 13-14-2-2;

(3) updated weekly, except as required at 327 IAC 7.1-8-7(a)(5); and

(4) maintained for at least five (5) years.

*(Water Pollution Control Board; 327 IAC 7.1-3-3; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3723)*

#### **Rule 4. Wastewater Management Permits**

327 IAC 7.1-4-1	Wastewater management permit applications
327 IAC 7.1-4-2	Action on application
327 IAC 7.1-4-3	Updating information
327 IAC 7.1-4-4	Permit conditions
327 IAC 7.1-4-5	Transition
327 IAC 7.1-4-6	Site restrictions
327 IAC 7.1-4-7	Design requirements for treatment facilities or storage facilities
327 IAC 7.1-4-8	Construction requirements for treatment or storage facilities
327 IAC 7.1-4-9	Operational requirements for treatment or storage facilities
327 IAC 7.1-4-10	Innovative technology; alternate design and construction
327 IAC 7.1-4-11	Closure of treatment facilities or storage facilities

#### **327 IAC 7.1-4-1 Wastewater management permit applications**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12; IC 25-31-1

Sec. 1. (a) An application for a wastewater management permit, including a renewal application, must be submitted to the commissioner on a form provided by the commissioner. An application, including a renewal application, is considered complete only after all information requested has been submitted.

(b) An application for renewal of an existing wastewater management permit shall be:

(1) postmarked; or

(2) hand delivered to the office of land quality, Indiana department of environmental management; or

(3) deposited with a private carrier as shown by the receipt issued by the carrier, if the application is sent by the private carrier to the address for the department on the application;

prior to the expiration date of the permit or the permit will be invalid upon expiration.

(c) If the applicant intends to store wastewater, or treat wastewater by altering the nature of domestic septage, a mixed load, or grease, then the permit application must be accompanied by all of the following:

(1) If the property where the wastewater storage or treatment facility will be located is not owned by the applicant:

(A) the name, mailing address, and telephone number of the property owner; and

(B) a statement, signed by the property owner, granting permission to conduct the activities specified in the application and stating that the activities specified in the application are not prohibited by any covenant of record.

(2) A county map clearly indicating the location of the property on which the facility is proposed.

(3) An accurate drawing clearly delineating the proposed facility site and the area within one-quarter (¼) mile of the site in all directions. The drawing must use a scale of one (1) inch per one hundred (100) feet and show north. The drawing shall clearly and accurately indicate the location of all features of interest, including the following:

(A) Potable water supplies.

(B) Lakes, ponds, streams, intermittent waterways, surface water impoundments, wetlands, or other bodies of water.

(C) Drainage inlets and tile systems.

(D) Rock outcrops, sinkholes, or undrained depressions.

(E) The location of all property lines, easements, and public roads.

(F) The critical habitat of endangered or threatened species.

(G) Historical sites.

(4) Plans and specifications certified by a professional engineer licensed under IC 25-31-1 to practice in Indiana. The plans must include the following:

(A) The design of the facility.

(B) The capacity of the facility.

(5) A brief narrative description of the proposed operating plan and maintenance procedures to be used at the facility.

(6) The name, address, and phone number of the person, or persons, designated in charge of the facility.

(7) A letter from at least one (1) publicly owned treatment works permitted under 327 IAC 5-2 or other

state permitted wastewater treatment plant permitted under 327 IAC 5 stating the applicant is authorized to dispose of wastewater at their facility. If the narrative presented in subdivision (5) states the facility will be solidifying all wastewater, the applicant must also submit such a letter from a state permitted municipal solid waste landfill permitted under the rules of the solid waste management board at 329 IAC 10.

(8) A signed statement from either the applicant or the property owner and the applicant, if the applicant is not the property owner, accepting responsibility for closure in compliance with section 11 of this rule.

*(Water Pollution Control Board; 327 IAC 7.1-4-1; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3723)*

### **327 IAC 7.1-4-2 Action on application**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-15-7; IC 13-18-12; IC 13-30-6; IC 36-9-30-35

Sec. 2. (a) The commissioner shall issue or renew a permit only after the following:

(1) Receipt of a completed application in accordance with section 1 of this rule.

(2) An inspection by a representative of the commissioner to determine compliance with the requirements of this article.

(b) A permit may be renewed with new or modified conditions based on the information provided in subsection (a).

(c) The commissioner may:

- (1) deny a permit application or a renewal application;
- (2) limit the length of a permit or renewal permit to one (1) year; or
- (3) place additional conditions on a permit or renewal permit;

if the commissioner determines that one (1) or more of the criteria in subsection (d) demonstrate the applicant's inability or unwillingness to manage wastewater under the requirements of IC 13-18-12 or this article.

(d) The commissioner may deny, limit the length of, or place additional conditions on a permit or renewal permit based on one (1) or more of the following:

- (1) The applicant has been convicted of a crime under IC 13-30-6 or IC 36-9-30-35.
- (2) The commissioner, under IC 13-15-7, has revoked the applicant's previous permit to operate under:
  - (A) this article; or
  - (B) 327 IAC 7, which was repealed in 2002.
- (3) The applicant has a history of one (1) or more violations of IC 13 or rules promulgated by authority of IC 13.
- (4) The applicant was the subject of one (1) or more administrative or judicial enforcement actions concern-

ing wastewater management under this article or 327 IAC 7, which was repealed in 2002.

(5) The applicant is the subject of one (1) or more pending administrative or judicial enforcement actions commenced under authority of IC 13.

(e) The application for a permit or the issuance of a permit does not:

(1) convey any property rights of any sort or any exclusive privileges to the applicant or permittee;

(2) authorize:

(A) any injury to any person or private property;

(B) invasion of other property rights; or

(C) any infringement of federal, state, or local laws or regulations; or

(3) preempt any duty to comply with other federal, state, or local requirements.

(f) After the transition process described in section 5 of this rule, all permits shall be issued for three (3) years unless limited to one (1) year under subsection (c). *(Water Pollution Control Board; 327 IAC 7.1-4-2; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3724; errata filed Aug 9, 2002, 10:16 a.m.: 25 IR 4113)*

### **327 IAC 7.1-4-3 Updating information**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 3. If the information provided in the application for the wastewater management permit changes, the applicant or permittee shall provide the new information to the commissioner no more than fifteen (15) days after the information provided in the application changes. The commissioner may modify the permit based on this information. *(Water Pollution Control Board; 327 IAC 7.1-4-3; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3724)*

### **327 IAC 7.1-4-4 Permit conditions**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 4. (a) The commissioner may include conditions in a permit that ensure compliance with this article. All wastewater management permits issued are subject to the following conditions and such additional conditions as stated in the permit:

(1) The business name stated on the wastewater management permit and no other name shall be used in advertising for and engaging in wastewater management services.

(2) Permits issued under this article or 327 IAC 7, which was repealed in 2002, are not transferable.

(3) The permittee shall provide wastewater management services in a manner that does not create a threat

to human health or the environment, including the following:

(A) Pumping, dumping, or allowing the leakage or drainage of wastewater onto any unauthorized premises, ground surfaces, public roads, or into the waters of the state is prohibited.

(B) Any spillage of wastewater onto unauthorized premises, ground surfaces, public roads, or waters of the state must be handled, removed, and disposed in accordance with this article and under 327 IAC 2-6.1.

(C) Water obtained from any source for flushing or cleaning licensed wastewater vehicles, equipment used in wastewater management, or a sewage disposal system must be obtained in a manner that prevents the possibility of contaminating the water source. Backflow prevention devices must be installed when water is obtained from a potable water source.

(D) Water used for flushing or cleaning purposes must be disposed of in the same manner as required by this article for wastewater disposal.

(4) Wastewater management activities must comply with all applicable requirements of IC 13-18-12 and this article.

(b) If the applicant intends to store or treat wastewater, the wastewater management permit shall be issued subject to the conditions contained in subsection (a), the following conditions, and such additional conditions as may be stated in the permit:

(1) Except for wastewater storage or treatment facilities approved prior to the effective date of this article, all storage or treatment facilities must comply with site restrictions and be designed and constructed in compliance with this article.

(2) All facilities must be operated in compliance with this article.

*(Water Pollution Control Board; 327 IAC 7.1-4-4; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3724)*

### **327 IAC 7.1-4-5 Transition**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 5. (a) Any permittee possessing a valid wastewater management permit on the effective date of this article shall, prior to expiration of that permit, submit an application for renewal of the permit in accordance with this subsection. A renewal permit will be issued subject to section 2 of this rule and according to the following schedule:

(1) Any permittee whose place of business is located outside of Indiana or any permittee whose place of business is located in the counties of:

(A) Adams;  
 (B) Allen;  
 (C) Bartholomew;  
 (D) Benton;  
 (E) Blackford;  
 (F) Boone;  
 (G) Brown;  
 (H) Carroll;  
 (I) Cass;  
 (J) Clark;  
 (K) Clay;  
 (L) Clinton;  
 (M) Crawford;  
 (N) Daviess;  
 (O) Dearborn;  
 (P) Decatur;  
 (Q) Dekalb;  
 (R) Delaware;  
 (S) Dubois;  
 (T) Elkhart;  
 (U) Fayette;  
 (V) Floyd;  
 (W) Fountain;  
 (X) Franklin;  
 (Y) Fulton;  
 (Z) Gibson;  
 (AA) Grant; and  
 (BB) Greene;

in Indiana will be issued a permit valid for one (1) year.

(2) Any permittee whose place of business is located in the counties of:

(A) Hamilton;  
 (B) Hancock;  
 (C) Harrison;  
 (D) Hendricks;  
 (E) Henry;  
 (F) Howard;  
 (G) Huntington;  
 (H) Jackson;  
 (I) Jasper;  
 (J) Jay;  
 (K) Jefferson;  
 (L) Jennings;  
 (M) Johnson;  
 (N) Knox;  
 (O) Kosciusko;  
 (P) LaGrange;  
 (Q) Lake;  
 (R) LaPorte;  
 (S) Lawrence;  
 (T) Madison;  
 (U) Marion; and

(V) Marshall;  
in Indiana will be issued a permit valid for two (2) years.

(3) Any permittee whose place of business is located in the counties of:

- (A) Martin;
- (B) Miami;
- (C) Monroe;
- (D) Montgomery;
- (E) Morgan;
- (F) Newton;
- (G) Noble;
- (H) Ohio;
- (I) Orange;
- (J) Owen;
- (K) Parke;
- (L) Perry;
- (M) Pike;
- (N) Porter;
- (O) Posey;
- (P) Pulaski;
- (Q) Putnam;
- (R) Randolph;
- (S) Ripley;
- (T) Rush;
- (U) St. Joseph;
- (V) Scott;
- (W) Shelby;
- (X) Spencer;
- (Y) Starke;
- (Z) Steuben;
- (AA) Sullivan;
- (BB) Switzerland;
- (CC) Tippecanoe;
- (DD) Tipton;
- (EE) Union;
- (FF) Vanderburgh;
- (GG) Vermillion;
- (HH) Vigo;
- (II) Wabash;
- (JJ) Warren;
- (KK) Warrick;
- (LL) Washington;
- (MM) Wayne;
- (NN) Wells;
- (OO) White; and
- (PP) Whitley;

in Indiana will be issued a permit valid for three (3) years.

(b) All wastewater treatment facilities or wastewater storage facilities approved prior to the effective date of this article that do not have an expiration date specified in the approval shall submit, within one hundred eighty

(180) days of the effective date of this article, a wastewater management permit application as specified in section 1 of this rule. Failure to timely submit a wastewater management permit application will cause the approval to store or treat wastewater to expire one hundred eighty-one (181) days after the effective date of this article.

(c) All wastewater treatment facilities or wastewater storage facilities approved prior to the effective date of this article shall submit, prior to the expiration date specified in the approval, a wastewater management permit application as specified in section 1 of this rule. Failure to timely submit a wastewater management permit application will invalidate the approval to store or treat wastewater on the expiration date.

(d) A permit or renewal permit will be issued subject to section 2 of this rule and according to the schedule set in subsection (a). (*Water Pollution Control Board; 327 IAC 7.1-4-5; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3725*)

#### **327 IAC 7.1-4-6 Site restrictions**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 6. Storage facilities or treatment facilities must not be constructed:

- (1) within one hundred (100) feet of any easement;
- (2) within three hundred (300) feet of any public road;
- (3) within six hundred (600) feet of any:
  - (A) residence;
  - (B) place of business;
  - (C) public gathering place;
  - (D) property line;
  - (E) lake;
  - (F) pond;
  - (G) stream;
  - (H) intermittent waterway;
  - (I) surface water impoundment;
  - (J) wetland;
  - (K) rock outcrop;
  - (L) sink hole;
  - (M) undrained depression; or
  - (N) potable water supply;
- (4) within one thousand (1,000) feet of any:
  - (A) public water supply well or public water supply surface intake structure;
  - (B) historical site; or
  - (C) critical habitat of endangered or threatened species;
- (5) in a flood plain; or
- (6) in a manner that would allow the wastewater to enter waters of the state.

(*Water Pollution Control Board; 327 IAC 7.1-4-6; filed*)

*Jul 8, 2002, 2:01 p.m.: 25 IR 3726; errata filed Aug 9, 2002, 10:16 a.m.: 25 IR 4113)*

**327 IAC 7.1-4-7 Design requirements for treatment facilities or storage facilities**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 7. (a) All wastewater treatment facilities or wastewater storage facilities must be designed in compliance with this article.

(b) All facilities must be designed so as to prevent entry of storm water run-off from surrounding areas.

(c) Earthen facilities for the storage or treatment of wastewater are prohibited.

(d) Underground steel tanks for the storage or treatment of wastewater are prohibited.

(e) Storage tanks of synthetic material, fiberglass, and aboveground metal tanks must comply with the following:

(1) The tank material and wall thickness shall be adequately engineered to contain the contents.

(2) All tanks must be watertight.

(3) Tanks previously used to store a substance other than wastewater must be cleaned to remove all traces of the other substance prior to the addition of wastewater to the tank.

(4) Tanks shall be anchored, supported, and bedded to provide structural safety and prevent movement. Aboveground tanks shall be supported by a concrete base.

(5) The bottom of the storage tank shall at all times be at least two (2) feet above:

(A) the water table;

(B) bedrock; or

(C) both clauses (A) and (B).

(6) Aboveground tanks must have protected shutoff valves for all inlet and outlet pipes.

(7) Vents on tanks shall not allow disease vectors to enter the tanks.

(8) Tanks shall be of such construction or design as to allow inspection and sampling of contents.

(9) An all-weather access road shall be provided to the storage facility sites.

*(Water Pollution Control Board; 327 IAC 7.1-4-7; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3726)*

**327 IAC 7.1-4-8 Construction requirements for treatment or storage facilities**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 8. (a) All wastewater treatment facilities or storage facilities must be constructed to prevent leaks and seepage and prevent spills that could enter waters of the state.

(b) The commissioner may incorporate conditions into the wastewater management permit that require testing to verify that the facility's wastewater management system is consistent with the design standards and meets the performance standards established in this article. *(Water Pollution Control Board; 327 IAC 7.1-4-8; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3727)*

**327 IAC 7.1-4-9 Operational requirements for treatment or storage facilities**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 9. (a) All wastewater treatment facilities or storage facilities permitted under this article must be maintained and operated to prevent any threats to human health or the environment as follows:

(1) An all-weather off-loading area with containment for spill cleanup must be provided where the vehicle contents are received by the facility.

(2) Unauthorized access to the facility must be prevented by locks, and the facility must be fenced and posted.

(3) Facilities must be maintained so there is no discharge or seepage of wastewater other than controlled removal for final disposal of the wastewater.

(4) Facilities must be maintained so as to prevent safety hazards or disease vector conditions.

(b) Any uncovered storage structure must allow for and maintain a minimum of two (2) feet of freeboard at all times.

(c) Stockpiles of solids resulting from wastewater treatment at the treatment facility must be:

(1) stored on an impervious surface;

(2) stored for not longer than thirty (30) days at any given time;

(3) maintained to have adequate run-on and run-off control methods; and

(4) covered by a tarp, plastic sheet, or roof if stored for longer than seventy-two (72) hours.

*(Water Pollution Control Board; 327 IAC 7.1-4-9; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3727)*

**327 IAC 7.1-4-10 Innovative technology; alternate design and construction**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 10. (a) The use of a design or construction ap-

proach other than the requirements specified in this article or an innovative technology may be proposed by the owner or operator in accordance with the following:

- (1) The proposal for the alternative design, construction, or innovative technology must be accompanied by documentation that assures that the provisions of this article are met.
- (2) The proposal must comply with all applicable environmental rules and laws.
- (3) The proposal must be submitted with a wastewater management permit application.

(b) In making a determination on the alternative design, construction, or innovative technology the commissioner shall consider the following criteria:

- (1) Design specifications that assure adequate structural integrity.
- (2) Protective measures that reduce the potential for spills.
- (3) Operational practices that provide additional protection.
- (4) Threats of adverse impacts to water quality or other specified sensitive areas.
- (5) Other criteria related to protection of the environment or human health.

(c) The commissioner shall document the basis for the approval or denial of the proposed alternate design, construction, or innovative technology. (*Water Pollution Control Board; 327 IAC 7.1-4-10; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3727*)

### **327 IAC 7.1-4-11 Closure of treatment facilities or storage facilities**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 11. A treatment or storage facility that is no longer being operated or used must be closed. The person or persons who signed the statement submitted in accordance with section 1(c)(8) of this rule must close the treatment or storage facility in accordance with this section. The following steps are required:

- (1) The commissioner shall be notified at least thirty (30) days in advance that the facility is to be closed.
- (2) Closure, as described in this section, must be completed within one hundred twenty (120) days after the notification required in subdivision (1).
- (3) The contents of a facility must be disposed of in a manner consistent with 327 IAC 7.1-7.
- (4) Aboveground facilities must be dismantled and removed.
- (5) Earthen facilities must be:
  - (A) cleaned and leveled or filled with earth, and the appurtenances removed or closed in an alternative

manner equally protective of human health and the environment that has been approved by the commissioner; and

(B) the site shall be returned approximately to its natural contours and be mounded to allow for settling and to divert surface waters.

(6) A certification statement indicating that the requirements of this section have been met must be sent to the commissioner within thirty (30) days after completion of closure. The closure certification will be deemed adequate unless within ninety (90) days of receipt of the closure certification and subsequent review, the commissioner issues a notice of deficiency of closure, including actions necessary to correct the deficiency. (*Water Pollution Control Board; 327 IAC 7.1-4-11; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3727; errata filed Aug 9, 2002, 10:16 a.m.: 25 IR 4113*)

### **Rule 5. Vehicle Licenses**

- 327 IAC 7.1-5-1 Vehicle license requirements
- 327 IAC 7.1-5-2 Action on application
- 327 IAC 7.1-5-3 Updating information
- 327 IAC 7.1-5-4 License conditions and restrictions
- 327 IAC 7.1-5-5 Transition

### **327 IAC 7.1-5-1 Vehicle license requirements**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-18-12

Sec. 1. (a) An application for a wastewater management vehicle license, including a renewal, must be submitted to the commissioner, on a form provided by the commissioner. An application shall be considered complete only after all information requested has been submitted.

(b) An application for renewal of an existing wastewater management vehicle license shall be:

- (1) postmarked;
- (2) hand delivered to the office of land quality, Indiana department of environmental management; or
- (3) deposited with a private carrier as shown by the receipt issued by the carrier, if the application is sent by the private carrier to the address for the department on the application;

prior to the expiration date of the permit or the permit will be invalid upon expiration. (*Water Pollution Control Board; 327 IAC 7.1-5-1; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3728; errata filed Aug 9, 2002, 10:16 a.m.: 25 IR 4113*)

### **327 IAC 7.1-5-2 Action on application**

**Authority:** IC 13-14-8; IC 13-18-12-4  
**Affected:** IC 13-15-7; IC 13-18-12; IC 13-30-6; IC 36-9-30-35

Sec. 2. (a) The commissioner shall issue or renew a license only after the following:

- (1) Receipt of a completed application in accordance with section 1 of this rule.
- (2) A vehicle and equipment inspection by a representative of the commissioner to determine compliance with the requirements of this rule.
- (3) A valid wastewater management permit is issued to the vehicle owner under this article.

(b) A license may be renewed with new or modified conditions based on the information provided in subsection (a).

(c) The commissioner may:

- (1) deny a license application or a renewal license;
- (2) limit the length of a license or renewal license to one (1) year; or
- (3) place additional conditions on a license or renewal license;

if the commissioner determines that one (1) or more of the criteria in subsection (d) demonstrate the applicant's inability or unwillingness to manage wastewater under the requirements of IC 13-18-12 or this article.

(d) The commissioner may deny, limit the length of, or place additional conditions on a license or renewal license based on one (1) or more of the following:

- (1) The applicant has been convicted of a crime under IC 13-30-6 or IC 36-9-30-35.
- (2) The commissioner, under IC 13-15-7, has revoked the applicant's previous license to operate under:
  - (A) this article; or
  - (B) 327 IAC 7, which was repealed in 2002.
- (3) The applicant has a history of one (1) or more violations of IC 13 or rules promulgated by authority of IC 13.
- (4) The applicant was the subject of one (1) or more administrative or judicial enforcement actions concerning wastewater management under this article or 327 IAC 7, which was repealed in 2002.
- (5) The applicant is the subject of one (1) or more pending administrative or judicial enforcement actions commenced under authority of IC 13.

(e) The application for a license or the issuance of a license does not:

- (1) convey any property rights of any sort or any exclusive privileges to the licensee;
- (2) authorize:
  - (A) any injury to any person or private property;
  - (B) invasion of other property rights; and
  - (C) any infringement of federal, state, or local laws or regulations; or
- (3) preempt any duty to comply with other federal, state, or local requirements.
- (f) After the transition process described in section 5

of this rule, all licenses shall be issued for three (3) years unless limited to one (1) year under subsection (c). In no case shall a license be issued for a term longer than the associated wastewater management permit required under 327 IAC 7.1-3-1(1). (*Water Pollution Control Board; 327 IAC 7.1-5-2; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3728; errata filed Aug 9, 2002, 10:16 a.m.: 25 IR 4113*)

### **327 IAC 7.1-5-3 Updating information**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 3. If the information provided in the application for the vehicle license changes, the applicant or licensee shall provide the new information to the commissioner no more than fifteen (15) days after the information provided in the application changes. The commissioner may modify the license based on this information. (*Water Pollution Control Board; 327 IAC 7.1-5-3; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3729*)

### **327 IAC 7.1-5-4 License conditions and restrictions**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-11-2-155; IC 13-18-12

Sec. 4. (a) The commissioner may include conditions and restrictions in a license that ensure compliance with this article.

(b) All wastewater management vehicle licenses are issued subject to the following conditions and any additional conditions contained in the license:

- (1) The vehicle must be used only as authorized by the license and in compliance with any applicable restrictions or conditions stated on the license.
- (2) The vehicle must not be used for the transport of any of the following:
  - (A) A hazardous waste that is regulated under 329 IAC 3.1.
  - (B) Wastewater containing PCBs equal to or greater than two (2) milligrams per kilogram on a dry weight basis.
  - (C) Petroleum based products.
  - (D) Pesticides.

(3) The vehicles and equipment used in cleaning sewage disposal systems or transporting wastewater must not be used for purposes other than the hauling of domestic waste, animal wastes, landfill leachate, or biosolids as defined in 327 IAC 6.1-2-7 without prior written permission of the commissioner. The granting or denial of permission shall be based on the potential for environmental harm caused by the hauling of a specific waste or wastes, such as cross contamination

with domestic wastes, animal wastes, landfill leachate, or biosolids as defined in 327 IAC 6.1-2-7.

(c) A restricted license may be issued for a vehicle that does not comply with specific requirements of this rule but is adequate to clean designated sewage disposal systems or types of systems or transport or land apply wastewater. The specific conditions that the vehicle is and is not required to meet shall be stated on the license.

(d) Wastewater management vehicle licenses are not transferable. (*Water Pollution Control Board; 327 IAC 7.1-5-4; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3729*)

### 327 IAC 7.1-5-5 Transition

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 5. (a) Any permittee possessing a valid vehicle license on the effective date of this article shall, prior to the expiration of that license, submit an application for renewal of the license in accordance with section 1 of this rule. A renewal license will be issued subject to section 2 of this rule and according to the following schedule:

(1) Any permittee whose place of business is located outside of Indiana or any permittee whose place of business is located in the counties of:

- (A) Adams;
- (B) Allen;
- (C) Bartholomew;
- (D) Benton;
- (E) Blackford;
- (F) Boone;
- (G) Brown;
- (H) Carroll;
- (I) Cass;
- (J) Clark;
- (K) Clay;
- (L) Clinton;
- (M) Crawford;
- (N) Daviess;
- (O) Dearborn;
- (P) Decatur;
- (Q) DeKalb;
- (R) Delaware;
- (S) Dubois;
- (T) Elkhart;
- (U) Fayette;
- (V) Floyd;
- (W) Fountain;
- (X) Franklin;
- (Y) Fulton;
- (Z) Gibson;
- (AA) Grant; and
- (BB) Greene;

in Indiana will be issued a license valid for one (1) year.

(2) Any permittee whose place of business is located in the counties of:

- (A) Hamilton;
- (B) Hancock;
- (C) Harrison;
- (D) Hendricks;
- (E) Henry;
- (F) Howard;
- (G) Huntington;
- (H) Jackson;
- (I) Jasper;
- (J) Jay;
- (K) Jefferson;
- (L) Jennings;
- (M) Johnson;
- (N) Knox;
- (O) Kosciusko;
- (P) LaGrange;
- (Q) Lake;
- (R) LaPorte;
- (S) Lawrence;
- (T) Madison;
- (U) Marion; and
- (V) Marshall;

in Indiana will be issued a license valid for two (2) years.

(3) Any permittee whose place of business is located in the counties of:

- (A) Martin;
- (B) Miami;
- (C) Monroe;
- (D) Montgomery;
- (E) Morgan;
- (F) Newton;
- (G) Noble;
- (H) Ohio;
- (I) Orange;
- (J) Owen;
- (K) Parke;
- (L) Perry;
- (M) Pike;
- (N) Porter;
- (O) Posey;
- (P) Pulaski;
- (Q) Putnam;
- (R) Randolph;
- (S) Ripley;
- (T) Rush;
- (U) St. Joseph;
- (V) Scott;
- (W) Shelby;

- (X) Spencer;
- (Y) Starke;
- (Z) Steuben;
- (AA) Sullivan;
- (BB) Switzerland;
- (CC) Tippecanoe;
- (DD) Tipton;
- (EE) Union;
- (FF) Vanderburgh;
- (GG) Vermillion;
- (HH) Vigo;
- (II) Wabash;
- (JJ) Warren;
- (KK) Warrick;
- (LL) Washington;
- (MM) Wayne;
- (NN) Wells;
- (OO) White; and
- (PP) Whitley;

in Indiana will be issued a license valid for three (3) years.

(b) In no case shall a license be issued for a term longer than the associated wastewater management permit required under 327 IAC 7.1-3-1(1). (*Water Pollution Control Board; 327 IAC 7.1-5-5; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3729*)

### **Rule 6. Licensed Vehicle Operation**

- 327 IAC 7.1-6-1 Vehicle requirements; general
- 327 IAC 7.1-6-2 Vehicle requirements; tanks
- 327 IAC 7.1-6-3 Vehicle requirements; pumping system
- 327 IAC 7.1-6-4 Vehicle requirements; hoses
- 327 IAC 7.1-6-5 Vehicle requirements; land application vehicles
- 327 IAC 7.1-6-6 Vehicle requirements; vehicle

#### **327 IAC 7.1-6-1 Vehicle requirements; general**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 1. (a) The current vehicle license issued by the commissioner must be maintained in the vehicle at all times.

(b) The operator shall remove wastewater from the sewage disposal system so as to minimize the occurrence of spills. Completion of wastewater removal includes the following:

- (1) Closing all access openings to the sewage disposal system.
- (2) Cleaning up any spilled wastewater.
- (3) Providing the customer with a completed, legible invoice showing the following:
  - (A) The customer's name and address.
  - (B) The date the customer's sewage disposal system

was cleaned.

(C) The amount of wastewater removed from the system in gallons.

(4) The invoice required in subdivision (3) must bear the following:

(A) The name and address of the permitted wastewater management business.

(B) The permittee's wastewater management permit number.

(C) The vehicle license number, as assigned by the commissioner, of the vehicle used in cleaning the customer's sewage disposal system.

(c) When transporting wastewater, licensed vehicles must be maintained to prevent the leakage, spillage, or discharge of wastewater onto ground surfaces or public roads, including the following:

(1) Portable sanitary units, including chemical toilets, and equipment on the vehicle must be secured to prevent detachment from the vehicle during transport.

(2) Portable sanitary units, including chemical toilets, and equipment on the vehicle must be maintained to prevent any leakage or spillage of wastewater during transport.

(*Water Pollution Control Board; 327 IAC 7.1-6-1; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3730*)

#### **327 IAC 7.1-6-2 Vehicle requirements; tanks**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 2. The vehicle must be equipped with a leak-proof tank suitable for containment of wastewater from cleaning sewage disposal systems and must meet the following requirements unless otherwise specified under a restricted license:

(1) The tank must be securely affixed to the vehicle chassis.

(2) The tank must have a capacity of at least one thousand (1,000) gallons.

(3) The tank must be constructed of a metal adequate to prevent collapse when a vacuum is created.

(4) The tank, if more than seven (7) feet long as measured along the axis of vehicle travel, must contain interior baffles of sufficient cross-sectional area to adequately dampen movement of contained liquid during vehicle travel or braking. The baffles must be composed of the same material as the tank and must have the same or greater thickness as the tank walls. The baffles must be firmly attached to the interior tank wall at least every seven (7) feet along the axis of vehicle travel and must allow for complete draining of the contained wastewater.

(5) The tank must have a discharge opening of a

minimum of two and one-half (2½) inches in diameter, and the discharge point shall allow for complete draining of the contained wastewater.

(6) The tank must have watertight valves provided at the tank's inlet and outlet. Watertight caps or plugs must be installed whenever the inlet and outlet openings are not being used to transfer the wastewater.

(7) The tank must be constructed so that its interior and exterior can be cleaned.

(8) A device must be installed on the tank to visually indicate from the exterior of the tank the wastewater level in the tank.

*(Water Pollution Control Board; 327 IAC 7.1-6-2; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3731)*

### **327 IAC 7.1-6-3 Vehicle requirements; pumping system**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 3. A vehicle pumping system must meet the following requirements:

- (1) The inlet and discharge of the sewage pumps must be a minimum of two and one-half (2½) inches in diameter.
- (2) The vehicle engine intake manifold must not be used as a vacuum source.
- (3) The pump installation must be such that leakage is prevented.
- (4) All exposed connections or openings must be made watertight with caps or plugs when the pumping system is being used to transfer liquid or wastewater.

*(Water Pollution Control Board; 327 IAC 7.1-6-3; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3731)*

### **327 IAC 7.1-6-4 Vehicle requirements; hoses**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 4. A vehicle hose must meet the following requirements:

- (1) The hose must:
  - (A) be maintained in good condition;
  - (B) have an inside diameter of not less than two and one-half (2½) inches; and
  - (C) be equipped with leakproof connectors.
- (2) The hose must be of such material and construction that every portion of the interior and exterior can be cleaned.
- (3) All exposed hose openings or connections must be capped or plugged watertight when not in use unless the hoses have been flushed and rinsed clean or are carried in a leakproof storage compartment on the vehicle.

*(Water Pollution Control Board; 327 IAC 7.1-6-4; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3731)*

### **327 IAC 7.1-6-5 Vehicle requirements; land application vehicles**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 5. Vehicles and equipment that will be used on-site for surface application of wastewater must have a spray bar or splash plate and a screening device that will distribute the wastewater while the vehicle is in motion. The screening device must be capable of preventing the application of materials not defined as wastewater. The wastewater distribution device must be designed to allow the device to be cleaned. *(Water Pollution Control Board; 327 IAC 7.1-6-5; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3731)*

### **327 IAC 7.1-6-6 Vehicle requirements; vehicle**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 6. Wastewater management vehicle identification labeling must be a minimum of three-eighths (¾) inch in width and of a color contrasting with the background. Such identification must be maintained in a legible condition at all times. All licensed wastewater management vehicles must bear the following visual identification:

- (1) There must be labeled on both vehicle doors, or on the front quarter of the tank on both sides, where the tank wall is vertical, the business name and phone number, followed by the word "VEHICLE" followed by the vehicle license number assigned by the commissioner, in letters and numbers all at least two (2) inches tall.
- (2) The maximum capacity of the vehicle tank shall be painted at a location visible at all times, either on both sides of the tank or at the rear of the tank in letters and numbers at least two (2) inches tall.

*(Water Pollution Control Board; 327 IAC 7.1-6-6; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3731)*

## **Rule 7. Wastewater Disposal**

327 IAC 7.1-7-1 General requirements

327 IAC 7.1-7-2 Wastewater origins; notifications

### **327 IAC 7.1-7-1 General requirements**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 1. (a) Disposal may be by discharge into a wastewater treatment plant or treatment works collection

system that has a valid National Pollutant Discharge Elimination System permit issued by the commissioner under 327 IAC 5 as follows:

- (1) The discharge point, method of discharge, and wastewater quality must be in accordance with the requirements of the wastewater treatment plant accepting the wastewater.
- (2) Wastewater must not be disposed of through a wastewater treatment plant or sewerage system without prior written permission of the responsible official in charge of the wastewater treatment plant or sewerage system.
- (b) Domestic septage, grease, or mixed load may be disposed of in a permitted wastewater treatment facility as follows:
  - (1) Disposal may be by discharge into a treatment facility specifically designed for the treatment of domestic septage, grease, or mixed load.
  - (2) Facilities for the treatment of domestic septage, grease, or mixed load must have a valid wastewater management permit issued under 327 IAC 7.1-4.
  - (c) Wastewater may be disposed of in a municipal solid waste landfill as follows:
    - (1) Wastewater may be disposed at a municipal solid waste landfill possessing a valid solid waste management permit from the commissioner in accordance with the rules of the solid waste management board at 329 IAC 10.
    - (2) Liquid waste must not be accepted for disposal by any municipal solid waste landfill. Free liquid shall be determined utilizing Method 9095 (Paint Filter Liquids Test) as described in the U.S. Environmental Protection Agency Publication SW-846. Free liquids must be removed or solidified before disposal.
    - (d) Wastewater may be disposed of at an approved land application site as follows:
      - (1) Wastewater may be disposed at land application sites in compliance with this article. The wastewater may be in the form of grease, domestic septage, or a mixed load. No disposal of wastewater shall be permitted on the land at any property or location without a valid land application approval issued under 327 IAC 7.1-8.
      - (2) The contents of chemical toilets or Type III marine sanitation devices must not be land applied under this article.
      - (3) Sludges or waste products that are not wastewater must not be land applied under this article.
      - (4) During the period of the approval, land application sites for disposal of wastewater cannot be used for the disposal of animal manures or biosolids as defined in 327 IAC 6.1-2-7.
      - (e) Wastewater may be stored at a storage facility as

follows:

- (1) Pending final disposal at an approved land application site.
- (2) Facilities for the storage of wastewater must be constructed or installed in compliance with this article.
- (3) Facilities for the storage of wastewater must have a valid wastewater management permit issued under 327 IAC 7.1-4.

*(Water Pollution Control Board; 327 IAC 7.1-7-1; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3732; errata filed Aug 9, 2002, 10:16 a.m.: 25 IR 4113)*

### **327 IAC 7.1-7-2 Wastewater origins; notifications**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-11-2-99; IC 13-18-12; IC 13-22-2-3

Sec. 2. A permittee, owner, or operator shall notify the commissioner if requested to haul wastewater where there is reason to believe the wastewater may contain one (1) or more of the following:

- (1) A pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act, 33 U.S.C. Section 1251, et seq.
- (2) A hazardous waste as described in IC 13-11-2-99.
- (3) A hazardous waste that is listed under IC 13-22-2-3.

*(Water Pollution Control Board; 327 IAC 7.1-7-2; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3732)*

### **Rule 8. Land Application; General Requirements**

- 327 IAC 7.1-8-1 Land application approval requirements
- 327 IAC 7.1-8-2 Wastewater land application sites; prohibitions
- 327 IAC 7.1-8-3 Action on application
- 327 IAC 7.1-8-4 Updating information
- 327 IAC 7.1-8-5 Approval conditions
- 327 IAC 7.1-8-6 Transition
- 327 IAC 7.1-8-7 Wastewater land application rates and records
- 327 IAC 7.1-8-8 Wastewater land application; setbacks
- 327 IAC 7.1-8-9 Land application of wastewater; prohibitions; and management practices
- 327 IAC 7.1-8-10 Limitations and restrictions regarding land use and crop management

### **327 IAC 7.1-8-1 Land application approval requirements**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12; IC 25-31.5

Sec. 1. (a) An application for a wastewater land application site approval, including a renewal, must be submitted to the commissioner, on a form provided by the commissioner. An application is considered complete only after all information requested has been submitted.

- (b) An application for renewal of an existing land

application approval shall be:

- (1) postmarked;
- (2) hand delivered to the office of land quality, Indiana department of environmental management; or
- (3) deposited with a private carrier as shown by the receipt issued by the carrier, if the application is sent by the private carrier to the address for the department on the application;

prior to the expiration date of the permit or the permit will be invalid upon expiration.

(c) The application must be accompanied by all of the following:

- (1) A statement, signed by the property owner that:
  - (A) grants permission to dispose of wastewater on the property;
  - (B) acknowledges the crop and use limitations of sections 9 and 10 of this rule for land used for wastewater land application as set forth by this rule; and
  - (C) states activities specified in the application are not prohibited by any covenant of record.
- (2) The name, mailing address, and telephone number of the property owner.
- (3) A county map clearly indicating the location of the property on which wastewater application is proposed.
- (4) An accurate drawing clearly delineating the proposed wastewater application site and the area within one-quarter ( $\frac{1}{4}$ ) mile of the site in all directions. The drawing must use a scale of one (1) inch per one hundred (100) feet and show north. The drawing shall clearly and accurately indicate the location of all features of interest, including the following:
  - (A) Potable water supplies.
  - (B) Lakes, ponds, streams, intermittent waterways, surface water impoundments, wetlands, or other bodies of water.
  - (C) Drainage inlets and tile systems.
  - (D) Rock outcrops, sinkholes, or undrained depressions.
  - (E) The location and use of all structures, including residences or places of business and any public gathering places.
  - (F) The location of all property lines, easements, and public roads.
  - (G) The critical habitat of endangered or threatened species.
  - (H) Historical sites.
  - (I) Public water supply surface intake structures.
  - (J) Public water supply wells.

(5) A soil survey map or a report by a soil scientist registered under IC 25-31.5 or certified by the American Registry of Certified Professionals in Agronomy, Crops, and Soils (ARCPACS), classifying the soils

and their permeabilities within the proposed site and specifying the site's suitability for wastewater disposal by indicating the following:

- (A) That at least three (3) feet of soil exists at all times between the point of application and the:
  - (i) water table;
  - (ii) bedrock; or
  - (iii) both clauses (A) and (B).

(B) That the land application site is not located in the flood plain of the base flood or one hundred (100) year flood.

(C) That the soil permeability is slower than or equal to six (6) inches per hour for the first three (3) feet below the point of application.

(6) Additional information from the owner or operator as follows:

(A) A statement regarding the form or forms of wastewater to be land applied at the site: domestic septage, grease, or mixed load.

(B) Facts demonstrating that the site is not located in a sensitive area as defined at 327 IAC 7.1-2-34.

(C) Facts demonstrating that the site is land with a low potential for public exposure as defined at 327 IAC 7.1-2-21.

(D) The number of acres of area available for the application site after setbacks have been taken into consideration.

(E) A description of all land application methods to be utilized at the site.

(F) The estimated annual amount of wastewater to be applied at the site.

(G) The total amount of wastewater that has been applied to the site in all previous years.

(H) A plan indicating what crops are to be grown on the site during the effective period of the approval or if the site will be pasture land or set aside.

(7) A fee of thirty dollars (\$30) per site per year.

(d) Wastewater land application sites will not be approved unless the requirements of subsection (c), including, but not limited to, the site location and soil requirements, are met. (*Water Pollution Control Board; 327 IAC 7.1-8-1; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3732; errata filed Aug 9, 2002, 10:16 a.m.: 25 IR 4113*)

### **327 IAC 7.1-8-2 Wastewater land application sites; prohibitions**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 2. The application of wastewater at a land application site must not:

- (1) cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife;

- (2) result in the destruction or adverse modification of the critical habitat of endangered or threatened species as identified in 50 CFR 17.11 and 50 CFR 17.12;
- (3) cause a discharge of pollutants into waters of the state that is in violation of the requirements of the National Pollutant Discharge Elimination System (NPDES) under 327 IAC 5;
- (4) cause nonpoint source pollution to waters of the state;
- (5) contaminate a drinking water source;
- (6) cause soil erosion; or
- (7) be located in a sensitive area.

*(Water Pollution Control Board; 327 IAC 7.1-8-2; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3733)*

### **327 IAC 7.1-8-3 Action on application**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12; IC 13-30-6; IC 36-9-30-35

Sec. 3. (a) The commissioner may issue or renew a land application approval only after the following:

- (1) Receipt of a completed application in accordance with section 1 of this rule.
- (2) An inspection of the proposed land application site to determine if the site and proposed methods of application will comply with the requirements of this rule.
- (3) A valid wastewater management permit has been issued to the applicant under this article.

(b) An approval may be renewed with new or modified conditions based on the information provided in subsection (a).

(c) The commissioner may:

- (1) deny an approval application or a renewal approval;
- (2) limit the length of an approval or renewal approval to one (1) year; or
- (3) place additional conditions on an approval or renewal approval;

if the commissioner determines that one (1) or more of the criteria in subsection (d) demonstrate the applicant's inability or unwillingness to manage wastewater under the requirements of IC 13-18-12 or this article.

(d) The commissioner may deny, limit the length of, or place additional conditions on an approval or renewal approval based on one (1) or more of the following:

- (1) The applicant has been convicted of a crime under IC 13-30-6 or IC 36-9-30-35.
- (2) The applicant's previous approval or permit to operate has been revoked by the commissioner under:
  - (A) this article; or
  - (B) 327 IAC 7, which was repealed in 2002.
- (3) The applicant has a history of one (1) or more

violations of IC 13 or rules promulgated by authority of IC 13.

(4) The applicant was the subject of one (1) or more administrative or judicial enforcement actions concerning wastewater management under this article or 327 IAC 7, which was repealed in 2002.

(5) The applicant is the subject of one (1) or more pending administrative or judicial enforcement actions commenced under authority of IC 13.

(e) The application for an approval or the issuance of an approval does not:

(1) convey any property rights of any sort or any exclusive privileges to the applicant or approval holder;

(2) authorize:

(A) any injury to any person or private property;

(B) invasion of other property rights; or

(C) any infringement of federal, state, or local laws or regulations; or

(3) preempt any duty to comply with other federal, state, or local requirements.

(f) After the transition process described in section 6 of this rule, all approvals shall be issued for a period not to exceed three (3) years unless limited to one (1) year under subsection (c). No approval shall be issued for a term longer than the associated permit required under 327 IAC 7.1-3-1(1). *(Water Pollution Control Board; 327 IAC 7.1-8-3; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3734; errata filed Aug 9, 2002, 10:16 a.m.: 25 IR 4113)*

### **327 IAC 7.1-8-4 Updating information**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 4. If the information provided in the application for the land application approval changes, the applicant or holder of the approval shall provide the new information to the commissioner no more than fifteen (15) days after the information provided in the application changes. The commissioner may modify the approval based on this information. *(Water Pollution Control Board; 327 IAC 7.1-8-4; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3734)*

### **327 IAC 7.1-8-5 Approval conditions**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 5. All wastewater land application approvals shall be issued subject to the following conditions and such additional conditions as may be stated on the approval:

(1) The valid wastewater land application approval or copy of the approval must be carried in any vehicle disposing of wastewater at an application site at all

times; such approval or copy of the approval must be available for inspection by representatives of the commissioner or any law enforcement officer.

(2) Surface application must be performed using equipment described in 327 IAC 7.1-6-5.

(3) The property on which the wastewater land application site is located must be posted with signs reading, "NO TRESPASSING". Such signs must be posted along all access points to the site.

(4) The usable portion of any land application site must be that area indicated on the application for approval and remaining after setbacks and all other restrictions are applied. This area must be clearly marked every one hundred (100) yards at its boundaries by flags or other boundary markers.

(5) The applicable requirements of this rule must be met.

(6) Land application approvals are not transferable.

*(Water Pollution Control Board; 327 IAC 7.1-8-5; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3734)*

### 327 IAC 7.1-8-6 Transition

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 6. (a) Any holder of a valid land application approval on the effective date of this article shall, prior to the expiration of that approval, submit an application for renewal of that approval in accordance with section 1 of this rule. A renewal approval will be issued subject to section 2 of this rule and according to the following schedule:

(1) Any holder of an approval whose place of business is located in the counties of:

- (A) Adams;
- (B) Allen;
- (C) Bartholomew;
- (D) Benton;
- (E) Blackford;
- (F) Boone;
- (G) Brown;
- (H) Carroll;
- (I) Cass;
- (J) Clark;
- (K) Clay;
- (L) Clinton;
- (M) Crawford;
- (N) Daviess;
- (O) Dearborn;
- (P) Decatur;
- (Q) DeKalb;
- (R) Delaware;
- (S) Dubois;
- (T) Elkhart;
- (U) Fayette;

- (V) Floyd;
- (W) Fountain;
- (X) Franklin;
- (Y) Fulton;
- (Z) Gibson;
- (AA) Grant; and
- (BB) Greene;

in Indiana will be issued an approval valid for one (1) year.

(2) Any holder of an approval whose place of business is located in the counties of:

- (A) Hamilton;
- (B) Hancock;
- (C) Harrison;
- (D) Hendricks;
- (E) Henry;
- (F) Howard;
- (G) Huntington;
- (H) Jackson;
- (I) Jasper;
- (J) Jay;
- (K) Jefferson;
- (L) Jennings;
- (M) Johnson;
- (N) Knox;
- (O) Kosciusko;
- (P) LaGrange;
- (Q) Lake;
- (R) LaPorte;
- (S) Lawrence;
- (T) Madison;
- (U) Marion; and
- (V) Marshall;

in Indiana will be issued an approval valid for two (2) years.

(3) Any holder of an approval whose place of business is located in the counties of:

- (A) Martin;
- (B) Miami;
- (C) Monroe;
- (D) Montgomery;
- (E) Morgan;
- (F) Newton;
- (G) Noble;
- (H) Ohio;
- (I) Orange;
- (J) Owen;
- (K) Parke;
- (L) Perry;
- (M) Pike;
- (N) Porter;
- (O) Posey;
- (P) Pulaski;

(Q) Putnam;  
 (R) Randolph;  
 (S) Ripley;  
 (T) Rush;  
 (U) St. Joseph;  
 (V) Scott;  
 (W) Shelby;  
 (X) Spencer;  
 (Y) Starke;  
 (Z) Steuben;  
 (AA) Sullivan;  
 (BB) Switzerland;  
 (CC) Tippecanoe;  
 (DD) Tipton;  
 (EE) Union;  
 (FF) Vanderburgh;  
 (GG) Vermillion;  
 (HH) Vigo;  
 (II) Wabash;  
 (JJ) Warren;  
 (KK) Warrick;  
 (LL) Washington;  
 (MM) Wayne;  
 (NN) Wells;  
 (OO) White; and  
 (PP) Whitley;

in Indiana will be issued an approval valid for three (3) years.

(b) No approval shall be issued for a term longer than the associated wastewater management permit required under 327 IAC 7.1-3-1(1). (*Water Pollution Control Board; 327 IAC 7.1-8-6; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3735*)

### **327 IAC 7.1-8-7 Wastewater land application rates and records**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 7. (a) The amount of wastewater to be applied shall not exceed the following except as approved by the commissioner under subdivision (2):

(1) The annual application rate for domestic septage or mixed load shall not exceed:

(A) seventy-six thousand (76,000) gallons per acre based on two hundred (200) pounds of nitrogen, on land being prepared for growing corn, during the next growing season\*;  
 (B) thirty-eight thousand (38,000) gallons per acre based on one hundred (100) pounds of nitrogen, on land being prepared for growing soybeans, wheat, or hay, during the next growing season\*;

(C) nineteen thousand (19,000) gallons per acre based on fifty (50) pounds of nitrogen, on land that is grass, pasture, set aside, or otherwise idle for continued growth\*.

(2) Proposed wastewater annual application rates that:  
 (A) will exceed the maximum amount of nitrogen specified in subdivision (1); or

(B) are for crops for which no maximum amount of nitrogen is specified in subdivision (1) may be approved by the commissioner if an equivalent or greater protection to the environment or public health can be shown. The U.S. Environmental Protection Agency formula for annual application rates must be used to compute the proposed rates\*.

(3) The maximum annual rate for grease only shall not exceed ten thousand (10,000) gallons per acre.

(4) Land application of wastewater shall cease at the site when a total of two hundred thousand (200,000) gallons per acre of wastewater has been applied. The commissioner must then be notified prior to further land application at the site. The commissioner shall require soil tests for heavy metals and PCBs utilizing representative soil samples from the areas of application to ensure that conditions are not created which would endanger public health or have an adverse impact on vegetation and future crop utilization. The initial test results must be submitted to and approved by the commissioner prior to further land application at the site. The initial test results will be used to determine if and at what frequency tests for heavy metals and PCBs will be required by the commissioner from the approval holder in the future to ensure that conditions are not created which would endanger public health or have an adverse impact on vegetation and future crop utilization.

(5) The wastewater must be surface spread or injected uniformly to prevent overlapping. Spot dumping from stationary vehicles is not permitted.

(6) The operator must keep an operating record of the amount of wastewater applied. This record must be:

(A) updated each application day; and  
 (B) located at the permitted wastewater management business address and made available to representatives of the commissioner during normal business hours for inspection.

(b) For each day that wastewater is land applied the operator must record and retain for five (5) years on a land application report form information as follows:



*Jul 8, 2002, 2:01 p.m.: 25 IR 3736; errata filed Aug 9, 2002, 10:16 a.m.: 25 IR 4113)*

### **327 IAC 7.1-8-8 Wastewater land application; setbacks**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 8. Wastewater shall not be applied or allowed to drain closer to the following features than the minimum setbacks indicated below:

Features of Interest	Method of Land Application	
	Surface Spreading	Surface Spreading with Incorporation or Injection
Potable water supplies	500 feet	500 feet
Lakes, ponds, streams, intermittent waterways, surface water impoundments, wetlands, or other bodies of water	200 feet	100 feet
Drainage inlets and tile systems	100 feet	50 feet
Rock outcrops, sinkholes, or undrained depressions	100 feet	50 feet
Residences, places of business, or public gathering places	600 feet	500 feet
Public roads	300 feet	200 feet
Property lines or easements	100 feet	50 feet
Historic sites	1,000 feet	1,000 feet
The critical habitat of endangered or threatened species	1,000 feet	1,000 feet
Public water supply well or public water supply surface intake structure	1,000 feet	1,000 feet

*(Water Pollution Control Board; 327 IAC 7.1-8-8; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3738)*

### **327 IAC 7.1-8-9 Land application of wastewater; prohibitions; and management practices**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 9. (a) The land application of wastewater must be performed only in accordance with the following:

(1) No domestic septage or mixed load may be dis-

posed at a land application site unless the domestic septage or mixed load has been treated to reduce pathogens prior to disposal as follows:

(A) If the load is domestic septage only, the pH must be raised to twelve (12) or higher by addition of alkaline material and, without the addition of more alkaline material, shall remain at twelve (12) or higher for at least thirty (30) minutes. This test must be done twice, at the start of thirty (30) minutes and at the end of thirty (30) minutes.

(B) If the load is a mixed load, then the pH must be raised to twelve (12) or higher by addition of alkaline material and, without the addition of more alkaline material, shall remain at twelve (12) or higher for at least two (2) hours. This test must be done twice, at the start of two (2) hours and at the end of two (2) hours.

(C) Processes to reduce pathogens other than lime stabilization may be utilized only as listed and described in 40 CFR 257, Appendix II A.

(D) Any process to reduce pathogens in domestic septage or a mixed load other than lime stabilization must be approved by the commissioner prior to use based on a plan submitted by the approval holder specifying how that specific treatment process will be utilized.

(2) Grease must not be disposed of at any land application site unless injection or incorporation into the soil occurs within six (6) hours after application.

(3) Each container of wastewater applied to the land shall be monitored by the operator for compliance with the treatment process for domestic septage, mixed loads, or the land application method utilized under subdivision (2) for grease.

(4) Land application is prohibited under any of the following environmental conditions:

(A) When either or both of the following occurs:

(i) The surface soil temperature is less than thirty-two (32) degrees Fahrenheit at the time of intended application.

(ii) The site is snow covered.

(B) When the moisture holding capacity of the soil has been exceeded.

(C) Under any other conditions that would result in, or are likely to result in, run-off of wastewater from the site of application.

(5) Under no conditions shall wastewater be discharged or allowed to drain to the waters of the state. Wastewater shall not be applied to:

(A) road ditches; or

(B) swales, sink holes, field depressions, or channels that carry running water during snow melt or rainfall.

(6) Wastewater that is surface applied shall not be

allowed to pool, pond, or remain as a liquid on the ground for more than twenty-four (24) hours after application.

(7) Injection of wastewater below the surface of the land must leave no significant amount of the wastewater present on the land within one (1) hour after application.

(8) All wastewater must be disposed so that no threat to human health or the environment is created.

(b) Land that is used for the application of a mixed load or grease must not be used for the production of any food crop unless the soil is tested yearly and the results found acceptable under 40 CFR 257.3-5(a)(1), using the definitions found in 40 CFR 257.3-5(c). The test results must be submitted to IDEM on a yearly basis. The limitations and restrictions regarding land use and crop management also must be followed.

(c) Land that is used for the application of only domestic septage may be used for the production of food crops when the limitations and restrictions regarding land use and crop management contained in section 10 of this rule are followed. (*Water Pollution Control Board; 327 IAC 7.1-8-9; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3738*)

### **327 IAC 7.1-8-10 Limitations and restrictions regarding land use and crop management**

**Authority:** IC 13-14-8; IC 13-18-12-4

**Affected:** IC 13-18-12

Sec. 10. (a) The following limitations and restrictions on land use and crop management must be followed where grease only has been land applied:

(1) Access to the site by the public must be prohibited for twelve (12) months following the last grease application.

(2) Access by animals whose products are consumed by humans must be prevented for at least thirty (30) days following the last grease application.

(3) Food crops for direct human consumption must not be grown for eighteen (18) months following the last grease application.

(b) The following limitations and restrictions on land use and crop management must be followed where domestic septage only has been land applied:

(1) Food crops with harvested parts that touch the septage and soil mixture and are totally aboveground must not be harvested for fourteen (14) months after application of domestic septage.

(2) Food crops with harvested parts below the surface of the land must not be harvested for twenty (20) months after application of domestic septage when the domestic septage remains on the land surface for four

(4) months or longer prior to incorporation into the soil.

(3) Food crops with harvested parts below the surface of the land must not be harvested for thirty-eight (38) months after application of domestic septage when the domestic septage remains on the land surface for less than four (4) months prior to incorporation into the soil.

(4) Animal feed, fiber, and those food crops whose harvested parts do not touch the soil surface must not be harvested for thirty (30) days after application of the domestic septage.

(5) Turf grown on land where domestic septage is applied must not be harvested for one (1) year after application of the domestic septage when the harvested turf is placed on either a lawn or land with a high potential for public exposure.

(c) The following limitations and restrictions on land use and crop management must be followed where a mixed load has been land applied:

(1) Access to the site by the public must be prohibited for twelve (12) months following the last mixed load application.

(2) Access by animals whose products are consumed by humans must be prevented for at least thirty (30) days following the last mixed load application.

(3) Food crops for direct human consumption must not be grown for eighteen (18) months following the last mixed load application.

(4) Food crops with harvested parts that touch the mixed load and soil mixture and are totally aboveground must not be harvested for fourteen (14) months after application of the mixed load.

(5) Food crops with harvested parts below the surface of the land must not be harvested for twenty (20) months after application of the mixed load when the mixed load remains on the land surface for four (4) months or longer prior to incorporation into the soil.

(6) Food crops with harvested parts below the surface of the land must not be harvested for thirty-eight (38) months after application of the mixed load when the mixed load remains on the land surface for less than four (4) months prior to incorporation into the soil.

(7) Animal feed, fiber, and those food crops whose harvested parts do not touch the soil surface must not be harvested for thirty (30) days after application of the mixed load.

(8) Turf grown on land where the mixed load is applied must not be harvested for one (1) year after application of the mixed load when the harvested turf is placed on either a lawn or land with a high potential for public exposure.

(*Water Pollution Control Board; 327 IAC 7.1-8-10; filed Jul 8, 2002, 2:01 p.m.: 25 IR 3739*)

## ARTICLE 8. PUBLIC WATER SUPPLY

- Rule 1. Public Water Supply Direct Additive and Indirect Additive Standards
- Rule 2. Drinking Water Standards
  - Rule 2.1. Consumer Confidence Reports
  - Rule 2.5. Disinfectants and Disinfection
  - Rule 2.6. Enhanced Filtration and Disinfection
- Rule 3. Public Water Supply Construction Permits
  - Rule 3.1. Permitting Authority of Units for Water Main Extension Construction
  - Rule 3.2. Technical Standards for Water Mains
  - Rule 3.3. Public Water System Quantity Requirement Standards
  - Rule 3.4. Public Water System Wells
  - Rule 3.5. General Construction Permit for Water Mains
  - Rule 3.6. Demonstration of New Public Water Supply System Capacity
- Rule 4. Approval of Public Water Supply Plans
  - Rule 4.1. Wellhead Protection
- Rule 5. Construction of Public Water Supply Systems Under Order of the DEM
- Rule 6. Improvements of Public Water Supply Systems or Treatment Works Under Order of the DEM
- Rule 7. Water Supply and Distribution Systems; School Buildings and Related Facilities (*Repealed*)
- Rule 8. Water Supply and Distribution Systems; Mobile Home Parks (*Repealed*)
- Rule 9. Water Supply and Distribution Systems; Agricultural Camps (*Repealed*)
- Rule 10. Cross Connections; Control; Operation
- Rule 11. Water Purification and Treatment Works; Operation; Requirements
- Rule 12. Classification of Community Public Water System and Nontransient Noncommunity Public Water System Treatment Plants and Distribution Systems; Examination and Certification of Operators

### Rule 1. Public Water Supply Direct Additive and Indirect Additive Standards

- 327 IAC 8-1-1 Community water system; fluoridation; phosphate additives
- 327 IAC 8-1-2 Drinking water direct additives and indirect additives; certification requirements
- 327 IAC 8-1-3 Definitions
- 327 IAC 8-1-4 Incorporation by reference

### 327 IAC 8-1-1 Community water system; fluoridation; phosphate additives

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-13-5-1; IC 13-18-2

Sec. 1. Each community water system that adds a fluoride or phosphate compound shall comply with the following:

(1) Fluoride compounds may be added to such water supplies after receiving a construction permit from the commissioner providing the total content of fluoride

ion (F<sup>-</sup>) after such addition does not exceed two (2.0) milligrams per liter (mg/l) unless the public water system is a participant in an Indiana state department of health approved school fluoride adjustment program for which the concentration of fluoride in a school water supply shall not exceed five and one-half (5.5) mg/l.

(2) Phosphate additives may be added to the water for treatment of iron, manganese, scale, and corrosion problems after receiving a construction permit from the commissioner. Such direct additives shall be in conformance with section 2 of this rule. Total phosphate concentration shall not exceed ten (10) mg/l measured as PO<sub>4</sub>. Product may be provided in liquid or dry form. Containers in which the agents are packaged shall be labeled indicating product information and general instructions for use. At a minimum, the label must display the name and application of product, percentage phosphate concentration as PO<sub>4</sub>, and certification of American National Standards Institute (ANSI)/National Sanitation Foundation (NSF) International Standard 60, NSF Listings, Drinking Water Additives-Health Effects. In addition, if it is provided in liquid form, the label shall specify pH and specific gravity. The containers must also be marked identifying manufacturing batch number. All liquid products must be treated for bacteria control at the time of manufacture with a potably approved bacteria control agent.

*(Water Pollution Control Board; 327 IAC 8-1-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 705; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1003; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2491; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### 327 IAC 8-1-2 Drinking water direct additives and indirect additives; certification requirements

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 2. (a) All public water systems shall comply with this section before the conclusion of ninety (90) days from the effective date of this rule.

(b) All direct additives in public water systems shall be certified for conformance to American National Standards Institute (ANSI)/National Sanitation Foundation (NSF) International Standard 60, NSF Listings, Drinking Water Additives-Health Effects. All public water systems must compile and maintain on file for inspection by the commissioner a list of all direct additives used that come into contact with the drinking water. This list must

contain the name, the description, the manufacturer of the product, and whether the direct additive is certified under this section. The list must be maintained as long as the direct additives are used by the public water supply.

(c) The following new or modified indirect additives in public water systems shall be certified for conformance to American National Standards Institute (ANSI)/National Sanitation Foundation (NSF) International Standard 61, Classified or Recognized Drinking Water System Components, Component Materials and Treatment Additives Directory, except Section 9, Mechanical Plumbing Product:

- (1) All indirect additives found in finished water storage facilities, including lubricants, tank coatings, paints, and epoxies.
- (2) All indirect additives between all entry points of the distribution system, and all customer service connection meters.
- (3) All filter and membrane media.
- (4) All indirect additives which are classified in a category of indirect additives for which American National Standards Institute (ANSI)/National Sanitation Foundation (NSF) International Standard 61 is available.

(d) All public water systems must demonstrate certification of direct additives and indirect additives required by subsections (b) and (c) when inspected by the commissioner.

(e) Certification that a direct additive or an indirect additive meets the standards adopted in or pursuant to this rule shall be recognized as being listed with such certification in one (1) of the following publications:

- (1) "NSF Listings, Drinking Water Additives-Health Effects".
- (2) "Classified or Recognized Drinking Water System Components, Component Materials, and Treatment Additives Directory".

(f) The commissioner may approve the use of a direct or indirect additive in a public water system only after the applicant has demonstrated that the direct or indirect additive is in compliance with the following conditions:

- (1) The direct or indirect additive has been approved and is listed by one (1) of the publications specified by subsection (e).
- (2) The direct or indirect additive has been approved by an organization having a third party certification program for direct or indirect additives that has been approved by the American National Standards Institute.

(g) The commissioner shall maintain a copy of the following:

- (1) "NSF Listings, Drinking Water Additives-Health Effects".

(2) "Classified or Recognized Drinking Water System Components, Component Materials, and Treatment Additives Directory".

(h) A public water system shall not willfully introduce, permit, or suffer the introduction of a direct additive or indirect additive into the drinking water that does not meet the requirements of this rule. (*Water Pollution Control Board; 327 IAC 8-1-2; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2492; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 8-1-3 Definitions

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 3. In addition to the definitions contained in IC 13-11-2, the following definitions apply throughout this rule:

(1) "Direct additives" means additives that are used in public water systems for the treatment of raw water. Direct additives are also used to protect drinking water during storage and distribution. Examples of direct additives include the following:

- (A) Agents used for coagulation and flocculation.
- (B) Corrosion and scale control.
- (C) Softening.
- (D) Sequestering.
- (E) Precipitation.
- (F) pH adjustment.
- (G) Disinfection and oxidation.
- (H) Miscellaneous treatment applications.
- (I) Miscellaneous water supply products.

(2) "Entry point of the distribution system" means one (1) of the following points:

- (A) In public water systems which utilize water treatment facilities, the point at which the drinking water has left the treatment facilities and has entered the distribution system.
- (B) In public water systems which do not utilize water treatment facilities, the point at which the drinking water has left the supply facilities and has entered the distribution system.

(3) "Indirect additives" means additives that are materials or equipment that come in contact with drinking water or come in contact with drinking water direct additives. Examples of indirect additives include the following:

- (A) Pipes.
- (B) Valves and related products.
- (C) Barrier materials.
- (D) Joining and sealing materials.
- (E) Protective materials and related products.

(F) Mechanical devices used in treatment, transmission, and distribution systems.

(4) "Operator" means the person in direct or responsible charge and supervising the operation of a wastewater or water treatment plant or a water distribution system.

(5) "Public water system" means a public water supply for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen (15) service connections or regularly serves at least twenty-five (25) individuals daily at least sixty (60) days out of the year. The term includes any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system and any collection or pretreatment storage facilities not under such control that are used primarily in connection with such system.

*(Water Pollution Control Board; 327 IAC 8-1-3; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2492; filed Mar 6, 2000, 7:56 a.m.: 23 IR 1622; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### 327 IAC 8-1-4 Incorporation by reference

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-14-8

Sec. 4. The following materials, including titles and the names and addresses of where they may be located for inspection and copying, are incorporated by reference into this rule:

(1) "NSF Listings, Drinking Water Additives-Health Effects", November 13, 1997, National Sanitation Foundation (NSF) International, 3475 Plymouth Road, Ann Arbor, Michigan, 48113-0140 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

(2) "Classified or Recognized Drinking Water Systems Components, Component Materials and Treatment Additives Directory", August, 1997, Underwriters Laboratory, Inc., Engineering Services, 416C, 333 Pfingsten Road, Northbrook, Illinois or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

*(Water Pollution Control Board; 327 IAC 8-1-4; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2493; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### Rule 2. Drinking Water Standards

327 IAC 8-2-1	Definitions
327 IAC 8-2-2	Applicability of rule; modification of monitoring requirements
327 IAC 8-2-3	Analytical methods
327 IAC 8-2-4	Inorganic chemicals; maximum contaminant levels
327 IAC 8-2-4.1	Collection of samples for inorganic chemical testing
327 IAC 8-2-4.2	Analytical methods for inorganic chemical testing
327 IAC 8-2-5	Organic chemicals other than volatile compounds; maximum contaminant levels
327 IAC 8-2-5.1	Collection of samples for organic chemical testing other than volatile organic compounds and total trihalomethanes
327 IAC 8-2-5.2	Analytical methods for organic chemical testing other than volatile organic compounds and total trihalomethanes
327 IAC 8-2-5.3	Collection of samples for total trihalomethanes testing; community water systems
327 IAC 8-2-5.4	Volatile organic compounds; maximum contaminant levels for community water systems and nontransient noncommunity water systems
327 IAC 8-2-5.5	Collection of samples for volatile organic compound testing other than total trihalomethanes; community and nontransient noncommunity water systems
327 IAC 8-2-5.6	Analytical methods for volatile organic compounds
327 IAC 8-2-6	Turbidity; maximum contaminant level (effective until June 28, 1993) <i>(Repealed)</i>
327 IAC 8-2-6.1	Collection of samples for turbidity testing (effective until June 28, 1993) <i>(Repealed)</i>
327 IAC 8-2-7	Microbiological contaminants; maximum contaminant levels for all public water systems
327 IAC 8-2-8	Collection of samples for total coliform bacteria testing
327 IAC 8-2-8.1	Repeat monitoring for total coliform bacteria
327 IAC 8-2-8.2	Sanitary surveys
327 IAC 8-2-8.3	Collection of samples for fecal coliforms or Escherichia coli (E. coli) testing
327 IAC 8-2-8.4	Analytical methods for microbiological contaminants
327 IAC 8-2-8.5	Requirement for filtration and disinfection
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327 IAC 8-2-8.7	Analytical and monitoring requirements; fecal coliform, total coliform, turbidity, disinfection
327 IAC 8-2-8.8	Monitoring requirements; systems that provide filtration treatment
327 IAC 8-2-9	Radium-226, radium-228, and gross alpha particle radioactivity; maximum contaminant levels
327 IAC 8-2-10	Beta and photon radioactivity from man-made radionuclides; maximum contaminant levels

- 327 IAC 8-2-10.1 Analytical methods for radioactivity
- 327 IAC 8-2-10.2 Monitoring frequency for radioactivity; community water systems
- 327 IAC 8-2-11 Modification of sampling frequency by board (*Repealed*)
- 327 IAC 8-2-12 Maximum contaminant level exceeded; required procedure (*Repealed*)
- 327 IAC 8-2-13 Reporting requirements; test results and failure to comply
- 327 IAC 8-2-14 Reporting and record keeping requirements; systems that provide filtration
- 327 IAC 8-2-15 Failure to comply; maximum contaminant level, treatment technique, or variance schedule (*Repealed*)
- 327 IAC 8-2-16 Public notification; required language for inorganic contaminants (*Repealed*)
- 327 IAC 8-2-17 Public notification; required language for organic contaminants (*Repealed*)
- 327 IAC 8-2-18 Public notification; required language for microbiological contaminants (*Repealed*)
- 327 IAC 8-2-19 Public notification requirements pertaining to lead
- 327 IAC 8-2-20 Record maintenance
- 327 IAC 8-2-21 Special monitoring for sodium
- 327 IAC 8-2-22 Special monitoring for corrosivity characteristics and lead ban
- 327 IAC 8-2-23 Special monitoring for inorganic and organic contaminants (*Repealed*)
- 327 IAC 8-2-24 Use of noncentralized treatment devices
- 327 IAC 8-2-25 Authority to grant and procedure to request a variance (*Repealed*)
- 327 IAC 8-2-26 Consideration of a variance request (*Repealed*)
- 327 IAC 8-2-27 Public hearings on variances and schedules (*Repealed*)
- 327 IAC 8-2-28 Additional conditions for variances from the maximum contaminant levels for volatile organic compounds (*Repealed*)
- 327 IAC 8-2-29 Reporting and public notification; unregulated contaminants (*Repealed*)
- 327 IAC 8-2-30 Maximum contaminant level goals; organic compounds
- 327 IAC 8-2-31 Maximum contaminant level goals; microbiological contaminants
- 327 IAC 8-2-32 Alternate analytical techniques
- 327 IAC 8-2-33 Laboratory compliance
- 327 IAC 8-2-34 Maximum contaminant level goals; inorganic contaminants
- 327 IAC 8-2-35 Treatment techniques
- 327 IAC 8-2-36 General requirements; lead and copper
- 327 IAC 8-2-37 Monitoring requirements for lead and copper in tap water
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- 327 IAC 8-2-40 Applicability of corrosion control treatment steps to small, medium size, and large water systems
- 327 IAC 8-2-41 Corrosion control treatment
- 327 IAC 8-2-42 Source water treatment requirements
- 327 IAC 8-2-43 Lead service line replacement
- 327 IAC 8-2-44 Public education and supplemental monitoring; lead and copper
- 327 IAC 8-2-45 Analytical methods; lead and copper
- 327 IAC 8-2-46 Reporting requirements; lead and copper
- 327 IAC 8-2-47 Record keeping requirements; lead and copper
- 327 IAC 8-2-48 Monitoring of consecutive public water systems

### 327 IAC 8-2-1 Definitions

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-11-2; IC 13-18

Sec. 1. In addition to the definitions contained in IC 13-11-2 and 327 IAC 1, the following definitions apply throughout this rule, 327 IAC 8-2.1, 327 IAC 8-2.5, and 327 IAC 8-2.6:

- (1) "Act" means the Safe Drinking Water Act (42 U.S.C. 300f et seq.).
- (2) "Action level" means the concentration of lead or copper in water specified in section 36(c) of this rule which determines, in some cases, the treatment requirements contained in sections 36 through 47 of this rule, that a water system is required to complete.
- (3) "Adjustment program" means the addition of fluoride to drinking water by a public water system for the prevention of dental cavities.
- (4) "Administrator" means the administrator of the U.S. EPA.
- (5) "Best available technology" or "BAT" means best technology, treatment techniques, or other means which the commissioner finds are available, after examination for efficacy under field conditions, and not solely under laboratory conditions, and after taking cost into consideration. For the purpose of setting maximum contaminant levels for synthetic organic chemicals, any BAT must be at least as effective as granular activated carbon.
- (6) "Coagulation" means a process using coagulant chemicals and mixing by which colloidal and suspended materials are destabilized and agglomerated into flocs.
- (7) "Commissioner" means the commissioner of the Indiana department of environmental management or the designated agent of the commissioner.
- (8) "Community water system" or "CWS" means a public water system which serves at least fifteen (15) service connections used by year-round residents or regularly serves at least twenty-five (25) year-round residents.

(9) “Compliance cycle” means the nine (9) year calendar year cycle during which public water systems must monitor. Each compliance cycle consists of three (3) three-year compliance periods. The first calendar year cycle begins January 1, 1993, and ends December 31, 2001; the second begins January 1, 2002, and ends December 31, 2010; the third begins January 1, 2011, and ends December 31, 2019.

(10) “Compliance period” means a three (3) year calendar year period within a compliance cycle. Each compliance cycle has three (3) three-year compliance periods. Within the first compliance cycle, the first compliance period runs from January 1, 1993, to December 31, 1995; the second from January 1, 1996, to December 31, 1998; the third from January 1, 1999, to December 31, 2001. Within the second compliance cycle, the first compliance period runs from January 1, 2002, to December 31, 2004; the second from January 1, 2005, to December 31, 2007; and the third from January 1, 2008, to December 31, 2010. Within the third compliance cycle, the first compliance period runs from January 1, 2011, to December 31, 2013; the second from January 1, 2014, to December 31, 2016; and the third from January 1, 2017, to December 31, 2019.

(11) “Comprehensive performance evaluation” or “CPE” means a thorough review and analysis of a treatment plant’s performance-based capabilities and associated administrative, operation, and maintenance practices. It is conducted to identify factors that may be adversely impacting a plant’s capability to achieve compliance and emphasizes approaches that can be implemented without significant capital improvements. For purposes of compliance with 327 IAC 8-2.6-1, the comprehensive performance evaluation must consist of at least the following components:

- (A) Assessment of plant performance.
- (B) Evaluation of major unit processes.
- (C) Identification and prioritization of performance limiting factors.
- (D) Assessment of the applicability of comprehensive technical assistance.
- (E) Preparation of a CPE report.

(12) “Confluent growth” means a continuous bacterial growth covering the entire filtration area of a membrane filter, or a portion thereof, in which bacterial colonies are not discrete.

(13) “Contaminant” means any micro-organisms, chemicals, waste, physical substance, radiological substance, or any wastewater introduced or found in the drinking water.

(14) “Conventional filtration treatment” means a series of processes including coagulation, flocculation,

sedimentation, and filtration resulting in substantial particulate removal.

(15) “Corrosion inhibitor” means a substance capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.

(16) “CT” or “CT<sub>calc</sub>” is the product of residual disinfectant concentration (C) in milligrams per liter determined before or at the first customer and the corresponding disinfectant contact time (T) in minutes, such as  $C \times T$ . If a public water system applies disinfectants at more than one (1) point prior to the first customer, it must determine the CT of each disinfectant sequence before or at the first customer to determine the total percent inactivation or total inactivation ratio. In determining the total inactivation ratio, the public water system must determine the residual disinfectant concentration of each disinfection sequence and corresponding contact time before any subsequent disinfection application point. CT<sub>99,9</sub> is the CT value required for ninety-nine and nine-tenths percent (99.9%) (3-log) inactivation of *Giardia lamblia* cysts. CT<sub>99,9</sub> for a variety of disinfectants and conditions appears in Tables 1.1-1.6, 2.1, and 3.1 of paragraph 141.74(b)(3)<sup>1</sup>.

$$\frac{CT_{calc}}{CT_{99,9}}$$

is the inactivation ratio. The sum of the inactivation ratios or total inactivation ratio shown as:

$$\sum \frac{(CT_{calc})}{(CT_{99,9})}$$

is calculated by adding together the inactivation ratio for each disinfection sequence. A total inactivation ratio equal to or greater than one (1.0) is assumed to provide a 3-log inactivation of *Giardia lamblia* cysts.

(17) “Diatomaceous earth filtration” means a process resulting in substantial particulate removal in which:

- (A) a precoat cake of diatomaceous earth filter media is deposited on a support membrane (septum); and
- (B) while the water is filtered by passing through the cake on the septum, additional filter media known as body feed is continuously added to the feed water to maintain the permeability of the filter cake.

(18) “Direct filtration” means a series of processes, including coagulation and filtration but excluding sedimentation resulting in substantial particulate removal.

(19) “Disinfectant” means any oxidant, including, but not limited to, chlorine, chlorine dioxide, chloramines,

and ozone added to water in any part of the treatment or distribution process that is intended to kill or inactivate pathogenic micro-organisms.

(20) "Disinfectant contact time" (T in CT calculations) means the time in minutes that it takes for water to move from the point of disinfectant application or the previous point of disinfectant residual measurement to a point before or at the point where residual disinfectant concentration (C) is measured. Where only one (1) C is measured, T is the time in minutes that it takes for water to move from the point of disinfectant application to a point before or at where C is measured. Where more than one (1) C is measured, T is:

(A) for the first measurement of C, the time in minutes that it takes for water to move from the first or only point of disinfectant application to a point before or at the point where the first C is measured; and

(B) for subsequent measurements of C, the time in minutes that it takes for water to move from the previous C measurement point to the C measurement point for which the particular T is being calculated.

Disinfectant contact time in pipelines must be calculated based on plug flow by dividing the internal volume of the pipe by the maximum hourly flow rate through that pipe. Disinfectant contact time within mixing basins and storage reservoirs must be determined by tracer studies or an equivalent demonstration.

(21) "Disinfection" means a process which inactivates pathogenic organisms in water by chemical oxidants or equivalent agents.

(22) "Disinfection profile" means a summary of daily *Giardia lamblia* inactivation through a treatment plant.

(23) "Domestic or other nondistribution system plumbing problem" means a coliform contamination problem in a public water system with more than one (1) service connection that is limited to the specific service connection from which the coliform-positive sample was taken.

(24) "Dose equivalent" means the product of the absorbed dose from ionizing radiation and such factors as account for differences in biological effectiveness due to the type of radiation and its distribution in the body as specified by the International Commission on Radiological Units and Measurements (ICRUM).

(25) "Drinking water violation" means violations of the maximum contaminant level (MCL), treatment technique (TT), monitoring requirements, and testing procedures in this rule. 327 IAC 8-2.1-16 identifies the tier assignment for each specific violation or situation requiring a public notice.

(26) "Effective corrosion inhibitor residual" means a concentration sufficient to form a passivating film on

the interior walls of a pipe for the purpose of sections 36 through 47 of this rule only.

(27) "Enhanced coagulation" means the addition of sufficient coagulant for improved removal of disinfection byproduct precursors by conventional filtration treatment.

(28) "Enhanced softening" means the improved removal of disinfection byproduct precursors by precipitative softening.

(29) "Filter profile" means a graphical representation of individual filter performance, based on continuous turbidity measurements or total particle counts versus time for an entire filter run, from startup to backwash inclusively, that includes an assessment of filter performance while another filter is being backwashed.

(30) "Filtration" means a process for removing particulate matter from water by passage through porous media.

(31) "First draw sample" means a one (1) liter sample of tap water collected in accordance with section 37 of this rule, that has been standing in the plumbing pipes at least six (6) hours and is collected without flushing the tap.

(32) "Flocculation" means a process to enhance agglomeration or collection of smaller floc particles into larger, more easily settleable particles through gentle stirring by hydraulic or mechanical means.

(33) "GAC10" means granular activated carbon filter beds with an empty-bed contact time of ten (10) minutes based on average daily flow and a carbon reactivation frequency of every one hundred eighty (180) days.

(34) "Gross alpha particle activity" means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample.

(35) "Gross beta particle activity" means the total radioactivity due to beta particle emission as inferred from measurements on a dry sample.

(36) "Ground water under the direct influence of surface water" means any water beneath the surface of the ground with:

(A) significant occurrence of insects or other macro-organisms, algae, or large-diameter pathogens such as *Giardia lamblia* or, for subpart H systems serving at least ten thousand (10,000) individuals only, *Cryptosporidium*; or

(B) significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to climatological or surface water conditions.

Direct influence must be determined for individual sources in accordance with criteria established by the commissioner. The commissioner's determination of

direct influence may be based on site-specific measurements of water quality and/or documentation of well construction characteristics and geology with field evaluation.

(37) "Haloacetic acids (five)" or "HAA5" means the sum of the concentrations in milligrams per liter of the haloacetic acid compounds (monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid), rounded to two (2) significant figures after addition.

(38) "Halogen" means one (1) of the chemical elements chlorine, bromine, or iodine.

(39) "Initial compliance period" means January 1993 to December 1995, for the contaminants listed in sections 4 (other than arsenic, barium, cadmium, fluoride, lead, mercury, selenium, and silver), 5, and 5.4(a) (other than benzene, vinyl chloride, carbon tetrachloride, 1,2-dichloroethane, trichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, and para-dichlorobenzene) of this rule.

(40) "Large water system" means a water system that serves more than fifty thousand (50,000) people for the purpose of sections 36 through 47 of this rule only.

(41) "Lead service line" means a service line made of lead which connects the water main to the building inlet and any lead pigtail, gooseneck, or other fitting which is connected to such lead line.

(42) "Legionella" means a genus of bacteria, some species of which have caused a type of pneumonia called Legionnaires Disease.

(43) "Manmade beta particle and photon emitters" means all radionuclides emitting beta particle and/or photons listed in "Maximum Permissible Body Burdens and Maximum Permissible Concentration of Radionuclides in Air or Water for Occupational Exposure", NBS Handbook 69, as amended August 1973, U.S. Department of Commerce, except the daughter products of thorium-232, uranium-235, and uranium-238.

(44) "Maximum contaminant level (MCL)" means the maximum permissible level of a contaminant in water which is delivered to the free flowing outlet of the ultimate user of a public water system, except in the case of turbidity where the maximum permissible level is measured at the point of entry to the distribution system. Contaminants added to the water under circumstances controlled by the user, except those resulting from corrosion of piping and plumbing caused by water quality, are excluded from this definition.

(45) "Maximum contaminant level goal (MCLG)" means the maximum level of a contaminant in drinking water at which no known or anticipated adverse effect on the health of persons would occur and which

includes an adequate margin of safety. Maximum contaminant level goals are nonenforceable health goals.

(46) "Maximum residual disinfectant level" or "MRDL" means a level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects.

(47) "Maximum residual disinfectant level goal" or "MRDLG" means the maximum level of a disinfectant added for water treatment at which no known or anticipated adverse effect on the health of individuals would occur and which allows an adequate margin of safety.

(48) "Maximum total trihalomethane potential" or "MTP" means the maximum concentration of total trihalomethanes produced in a given water containing a disinfectant residual after seven (7) days at a temperature of twenty-five (25) degrees Celsius or above.

(49) "Medium size water system" means a water system that serves greater than three thousand three hundred (3,300) and less than or equal to fifty thousand (50,000) persons for the purpose of sections 36 through 47 of this rule only.

(50) "Near the first service connection" means at one (1) of the twenty percent (20%) of all service connections in the entire system that are nearest the water supply treatment facility, as measured by water transport time within the distribution system.

(51) "Noncommunity water system" means a public water system which has at least fifteen (15) service connections used by nonresidents or which regularly serves twenty-five (25) or more nonresident individuals daily for at least sixty (60) days per year.

(52) "Nontransient noncommunity water system" or "NTNCWS" means a public water system that is not a community water system which regularly serves the same twenty-five (25) or more persons at least six (6) months per year.

(53) "Optimal corrosion control treatment" means the corrosion control treatment that minimizes the lead and copper concentrations at users' taps while ensuring that the treatment does not cause the water system to violate any national primary drinking water regulations for the purpose of sections 36 through 47 of this rule only.

(54) "Performance evaluation sample" means a reference sample provided to a laboratory for the purpose of demonstrating that the laboratory can successfully analyze the sample within limits of performance specified by the administrator. The true value of the concentration of the reference material is unknown to the laboratory at the time of the analysis.

(55) "Picocuri (pCi)" means the quantity of radioactive material producing two and twenty-two hundredths (2.22) nuclear transformations per minute.

(56) "Point of disinfectant application" is the point where the disinfectant is applied and water downstream of that point is not subject to recontamination by surface water run-off.

(57) "Point-of-entry treatment device" or "POE" is a treatment device applied to the drinking water entering a house or building for the purpose of reducing contaminants in drinking water distributed throughout the house or building.

(58) "Point-of-use treatment device" or "POU" is a treatment device to a single tap used for the purpose of reducing contaminants in drinking water at that one (1) tap.

(59) "Primacy agency" is the department of environmental management where the department exercise primary enforcement responsibility as granted by EPA.

(60) "Public water system" means a public water supply for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen (15) service connections or regularly serves at least twenty-five (25) individuals daily at least sixty (60) days out of the year. "Public water system" includes any collection, treatment, storage, and distribution facilities under control of the operator of such system, and used primarily in connection with such system and any collection or pretreatment storage facilities not under such control that are used primarily in connection with such system. A public water system is either a community water system or a noncommunity water system, as defined in subdivisions (8) and (51).

(61) "Rem" means the unit of dose equivalent from ionizing radiation to the total body or any internal organ or organ system. A millirem (mrem) is one-thousandth (1/1,000) of a rem.

(62) "Repeat compliance period" means any subsequent compliance period after the initial compliance period.

(63) "Residual disinfectant concentration"(C in CT calculations) means the concentration of disinfectant measured in milligrams per liter in a representative sample of water.

(64) "Sanitary survey" means an on-site inspection of the water source, facilities, equipment, construction, and operation and maintenance of a public water system for the purpose of evaluating the adequacy of such source, facilities, equipment, construction, and operation and maintenance for producing and distributing safe drinking water.

(65) "Sedimentation" means a process for removal of

solids before filtration by gravity or separation.

(66) "Service line sample" means a one (1) liter sample of water collected in accordance with section 37(b)(3) of this rule that has been standing at least six (6) hours in a service line.

(67) "Single family structure" means a building constructed as a single family residence that is currently being used as either a residence or a place of business for the purpose of sections 36 through 47 of this rule only.

(68) "Slow sand filtration" means a process involving passage of raw water through a bed of sand at low velocity (generally less than four-tenths (0.4) meter per hour or forty-five (45) to one hundred fifty (150) gallons per day per square foot) resulting in substantial particulate removal by physical and biological mechanisms.

(69) "Small water system" means a water system that serves three thousand three hundred (3,300) persons or fewer for the purpose of sections 36 through 47 of this rule only.

(70) "Standard sample" means the aliquot of finished drinking water that is examined for the presence of coliform bacteria.

(71) "Subpart H system" means a public water system using surface water or ground water under the direct influence of surface water as a source that is subject to the requirements of 327 IAC 8-2.6-1.

(72) "Supplier of water" means any person who owns and/or operates a public water system.

(73) "Surface water" means all water occurring on the surface of the ground, including water in a stream, natural and artificial lakes, ponds, swales, marshes, and diffused surface water.

(74) "SUVA" means specific ultraviolet absorption at two hundred fifty-four (254) nanometers, an indicator of the humic content of water. It is a calculated parameter obtained by dividing a sample's ultraviolet absorption at a wavelength of two hundred fifty-four (254) nanometers ( $UV_{254}$ ) (in  $m^{-1}$ ) by its concentration of dissolved organic carbon (DOC) (in milligrams per liter).

(75) "System with a single service connection" means a public water system which supplies drinking water to consumers via a single service line.

(76) "Too numerous to count" means that the total number of bacterial colonies exceeds two hundred (200) on a forty-seven (47) millimeter diameter membrane filter used for coliform detection.

(77) "Total organic carbon" or "TOC" means total organic carbon in milligrams per liter, measured using heat, oxygen, ultraviolet irradiation, chemical oxidants, or combinations of these oxidants that convert organic

carbon to carbon dioxide, rounded to two (2) significant figures.

(78) "Total trihalomethanes" or "TTHM" means the sum of the concentration in milligrams per liter of the trihalomethane compounds:

- (A) trichloromethane (chloroform);
- (B) dibromochloromethane;
- (C) bromodichloromethane; and
- (D) tribromomethane (bromoform);

rounded to two (2) significant figures.

(79) "Transient noncommunity water system" or "TWS" means a noncommunity water system that does not regularly serve at least twenty-five (25) of the same persons over six (6) months per year.

(80) "Trihalomethane" or "THM" means one (1) of the family of organic compounds, named as derivatives of methane, wherein three (3) of the four (4) hydrogen atoms in methane are each substituted by a halogen atom in the molecular structure.

(81) "Uncovered finished water storage facility" means a tank, reservoir, or other facility open to the atmosphere that is used to store water that will undergo no further treatment except residual disinfection.

(82) "U.S. EPA" or "EPA" means the United States Environmental Protection Agency.

(83) "Virus" means a virus of fecal origin which is infectious to humans by waterborne transmission.

(84) "Waterborne disease outbreak" means the significant occurrence of acute infectious illness epidemiologically associated with the ingestion of water from a public water system which is deficient in treatment as determined by the commissioner.

<sup>1</sup>Federal Register, Part II, 40 CFR 141, June 29, 1989, Volume 54, Number 124, pages 27532 through 27534. (*Water Pollution Control Board; 327 IAC 8-2-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 705; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1003; errata filed Jan 9, 1991, 2:30 p.m.: 14 IR 1070; errata filed Aug 6, 1991, 3:45 p.m.: 14 IR 2258; filed Apr 12, 1993, 11:00 a.m.: 16 IR 2151; filed Aug 24, 1994, 8:15 a.m.: 18 IR 19; errata filed Oct 11, 1994, 2:45 p.m.: 18 IR 531; filed Oct 24, 1997, 4:30 p.m.: 21 IR 932; filed Mar 6, 2000, 7:56 a.m.: 23 IR 1623; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1075; filed May 1, 2003, 12:00 p.m.: 26 IR 2808*)

### 327 IAC 8-2-2 Applicability of rule; modification of monitoring requirements

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 2. (a) Each public water system shall comply with all of the provisions of this rule and 327 IAC 8-2.1

unless the public water system meets all of the following conditions:

- (1) Consists only of distribution and storage facilities and does not have collection and treatment facilities.
- (2) Obtains all of its water from, but is not owned or operated by, a public water system to which this article applies.
- (3) Does not sell water to any person.
- (4) Is not a carrier which conveys passengers in interstate commerce.

(b) When a public water system supplies water to one (1) or more public water systems, the commissioner may modify the monitoring requirements imposed by this rule to the extent that the interconnection of the systems justifies treating them as a single system for monitoring purposes. Any modified monitoring shall be conducted pursuant to a schedule specified by the commissioner and concurred in by the administrator. The commissioner shall provide a copy of the determination to the administrator. (*Water Pollution Control Board; 327 IAC 8-2-2; filed Sep 24, 1987, 3:00 p.m.: 11 IR 706; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1006; errata filed Aug 6, 1991, 3:45 p.m.: 14 IR 2258; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1079*)

### 327 IAC 8-2-3 Analytical methods

**Authority:** IC 13-1-3-4; IC 13-7-2-15; IC 13-7-7-5; IC 13-7-14-5  
**Affected:** IC 13-1-3-4; IC 13-7

Sec. 3. Except as otherwise provided by this rule, the analytical procedures used as methods of analysis to determine the quality of water sampled shall be in accordance with this rule. (*Water Pollution Control Board; 327 IAC 8-2-3; filed Sep 24, 1987, 3:00 p.m.: 11 IR 706; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1006*)

### 327 IAC 8-2-4 Inorganic chemicals; maximum contaminant levels

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 4. (a) The following MCLs for inorganic chemicals apply to all community water systems, nontransient noncommunity water systems, and transient noncommunity systems except as provided in subsection (b):

<u>Contaminant</u>	<u>Level in Milligrams Per Liter</u>
Nitrate	10 (as nitrogen)
Nitrite	1 (as nitrogen)
Nitrate and nitrite	10 (as nitrogen)

(b) The commissioner may allow nitrate levels up to, but not to exceed, twenty (20) milligrams per liter in a

noncommunity water system if the supplier of water meets all of the following conditions:

- (1) Such water will not be available to children under six (6) months of age.
- (2) There will be continuous posting of the fact that nitrate levels exceed ten (10) milligrams per liter and the potential health effects of exposure.
- (3) Local and state public health authorities shall be notified annually of nitrate levels that exceed ten (10) milligrams per liter.
- (4) No adverse health effects shall result.
- (5) The commissioner may require additional notice to the public as provided by 327 IAC 8-2.1-14.

(c) The following MCL for fluoride applies to all community water systems:

<u>Contaminant</u>	<u>Level in Milligrams Per Liter</u>
Fluoride	4.0

(d) The following MCLs for inorganic chemicals apply to all community water systems and nontransient noncommunity water systems:

<u>Contaminant</u>	<u>Level in Milligrams Per Liter Except Asbestos</u>
Antimony	0.006
Arsenic	0.05
Asbestos	7 (MFL) <sup>1</sup>
Barium	2
Beryllium	0.004
Cadmium	0.005
Chromium	0.1
Cyanide (free)	0.2
Mercury	0.002
Selenium	0.05
Thallium	0.002

<sup>1</sup>MFL = million fibers per liter greater than ten (10) micrometers.

(e) For the inorganic chemicals listed in this section and nickel, the monitoring frequency is specified in section 4.1 of this rule and analytical methods are specified in section 4.2 of this rule.

(f) The commissioner hereby identifies the following as the best available technology, treatment technique, or other means available for achieving compliance with the MCLs for inorganic contaminants identified in subsections (a), (c), and (d), except fluoride:

BAT for Inorganic Chemicals Listed in This Section

<u>Chemical Name</u>	<u>BATs</u>
Antimony	2,7
Asbestos	2,3,8
Barium	5,6,7,9

Beryllium	1,2,5,6,7
Cadmium	2,5,6,7
Chromium	2,5,6 <sup>2</sup> ,7
Cyanide	5,7,10
Mercury	2 <sup>1</sup> ,4,6 <sup>1</sup> ,7 <sup>1</sup>
Nitrate	5,7,9
Nitrite	5,7
Selenium	1,2 <sup>3</sup> ,6,7,9
Thallium	1,5

<sup>1</sup>BAT only if influent mercury concentrations less than ten (10) micrograms per liter.

<sup>2</sup>BAT for Chromium III only.

<sup>3</sup>BAT for Selenium IV only.

Key to BATs in Table

- 1 = Activated alumina
- 2 = Coagulation/filtration
- 3 = Direct and diatomite filtration
- 4 = Granular activated carbon
- 5 = Ion exchange
- 6 = Lime softening
- 7 = Reverse osmosis
- 8 = Corrosion control
- 9 = Electrodialysis
- 10 = Chlorine
- 11 = Ultraviolet

*(Water Pollution Control Board; 327 IAC 8-2-4; filed Sep 24, 1987, 3:00 p.m.: 11 IR 706; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1006; filed Aug 24, 1994, 8:15 a.m.: 18 IR 22; filed Aug 25, 1997, 8:00 a.m.: 21 IR 34; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1079)*

**327 IAC 8-2-4.1 Collection of samples for inorganic chemical testing**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 4.1. (a) Community water systems shall conduct monitoring to determine compliance with the MCLs specified in section 4(a), 4(c), and 4(d) of this rule in accordance with this section. Nontransient noncommunity water systems shall conduct monitoring to determine compliance with the MCLs specified in section 4(a) and 4(d) of this rule in accordance with this section. Transient noncommunity water systems shall conduct monitoring to determine compliance with the MCLs specified in section 4(a) of this rule in accordance with this section.

(b) When a contaminant listed in section 4 of this rule exceeds the MCL, the supplier of water shall report to the commissioner under section 13 of this rule and shall give notice to the public under 327 IAC 8-2.1-7 through 327

IAC 8-2.1-16. Monitoring after public notification shall be at a frequency designated by the commissioner and shall continue until the MCL has not been exceeded in two (2) successive samples or until a monitoring schedule as a condition to an enforcement action shall become effective.

(c) Monitoring shall be conducted as follows:

(1) Ground water systems shall take a minimum of one (1) sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point) beginning in the compliance period starting January 1, 1993. The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(2) Surface water systems, including systems with a combination of surface and ground sources, shall take a minimum of one (1) sample at every entry point to the distribution system after any application of treatment or in the distribution system at a point which is representative of each source after treatment (hereafter called a sampling point) beginning in the compliance period beginning January 1, 1993. The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(3) If a system draws water from more than one (1) source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions, for example, when water is representative of all sources being used.

(4) The commissioner may reduce the total number of samples which must be analyzed by allowing the use of compositing. Composite samples from a maximum of five (5) samples are allowed, provided that the detection limit of the method used for analysis is less than one-fifth ( $1/5$ ) of the MCL. Compositing of samples must be completed in the laboratory as follows:

(A) When a composite sample is analyzed, if the concentration in the composite sample is greater than or equal to one-fifth ( $1/5$ ) of the MCL of any inorganic chemical, then a follow-up sample must be analyzed within fourteen (14) days at each sampling point included in the composite. These samples must be analyzed for the contaminants which exceeded one-fifth ( $1/5$ ) of the MCL in the composite sample. Detection limits for each analytical method and MCLs for each inorganic contaminant are the following:

<u>Contaminant</u>	<u>MCL (mg/l)</u>	<u>Methodology</u>	<u>Detection Limit (mg/l)</u>
Antimony	0.006	Atomic absorption; furnace	0.003
		Atomic absorption; platform	0.0008 <sup>5</sup>
		ICP-mass spectrometry	0.0004
		Hydride-atomic absorption	0.001
Asbestos	7 MFL <sup>1</sup>	Transmission electron microscopy	0.01 MFL
Barium	2	Atomic absorption; furnace	0.002
		Atomic absorption; direct aspiration	0.1
		Inductively coupled plasma	0.002 (0.001)
Beryllium	0.004	Atomic absorption; furnace	0.0002
		Atomic absorption; platform	0.00002 <sup>5</sup>
		Inductively coupled plasma <sup>2</sup>	0.0003
		ICP-mass spectrometry	0.0003
Cadmium	0.005	Atomic absorption; furnace	0.0001
		Inductively coupled plasma	0.001
Chromium	0.1	Atomic absorption; furnace	0.001
		Inductively coupled plasma	0.007 (0.001)
Cyanide	0.2	Distillation, spectrophotometric <sup>3</sup>	0.02
		Distillation, automated spectrophotometric <sup>3</sup>	0.005
		Distillation, selective electrode <sup>3</sup>	0.05
		Distillation, amenable, spectrophotometric <sup>4</sup>	0.02
Fluoride	4.0	Colorimetric SPADNS; with distillation	0.1

		Potentiometric ion selective electrode	0.1
		Automated alizarin fluoride blue; with distillation (complexone)	0.05
		Automated ion selective electrode	0.1
Mercury	0.002	Manual cold vapor technique	0.0002
		Automated cold vapor technique	0.0002
Nitrate	10 (as N)	Manual cadmium reduction	0.01
		Automated hydrazine reduction	0.01
		Automated cadmium reduction	0.05
		Ion selective electrode	1
		Ion chromatography	0.01
Nitrite	1 (as N)	Spectrophotometric	0.01
		Automated cadmium reduction	0.05
		Manual cadmium reduction	0.01
		Ion chromatography	0.004
Selenium	0.05	Atomic absorption; furnace	0.002
		Atomic absorption; gaseous hydride	0.002
Thallium	0.002	Atomic absorption; furnace	0.001
		Atomic absorption; platform	0.0007 <sup>5</sup>
		ICP-mass spectrometry	0.0003

<sup>1</sup>MFL = million fibers per liter greater than ten (10) micrometers.

<sup>2</sup>Using a 2x preconcentration step as noted in Method 200.7. Lower method detection limits may be achieved when using a 4x preconcentration.

<sup>3</sup>Screening method for total cyanides.

<sup>4</sup>Measures "free" cyanides.

<sup>5</sup>Lower method detection limits are reported using stabilized temperature graphite furnace atomic absorption.

(B) If the population served by the system is greater than three thousand three hundred (3,300) persons, then compositing may only be permitted by the commissioner at sampling points within a single system. In systems serving less than or equal to three thousand three hundred (3,300) persons, the commissioner may permit compositing among different systems provided the five (5) sample limit is maintained.

(C) If duplicates of the original sample taken from each sampling point used in the composite sample are available, the system may use these instead of resampling. The duplicate must be analyzed and the results reported to the commissioner within fourteen (14) days after completing analysis of the composite sample, provided the holding time of the sample is not exceeded.

(5) The frequency of monitoring for:

- (A) asbestos shall be in accordance with subsection (d);
- (B) antimony, barium, beryllium, cadmium, chromium, cyanide, fluoride, nickel, mercury, selenium, and thallium shall be in accordance with subsection (e);
- (C) nitrate shall be in accordance with subsection (f);
- (D) nitrite shall be in accordance with subsection (g); and

(E) arsenic shall be in accordance with subsection (l).

(d) The frequency of monitoring conducted to determine compliance with the MCL for asbestos specified in section 4(d) of this rule shall be conducted as follows:

(1) Each community and nontransient noncommunity water system is required to monitor for asbestos during the first three (3) year compliance period of each nine (9) year compliance cycle beginning in the compliance period starting January 1, 1993.

(2) If the system believes it is not vulnerable to either asbestos contamination in its source water or due to corrosion of asbestos-cement pipe, or both, it may apply to the commissioner for a waiver of the monitoring requirement in subdivision (1). If the commissioner grants the waiver, the system is not required to monitor.

(3) The commissioner may grant a waiver based upon a consideration of the following factors:

(A) Potential asbestos contamination of the water source.

(B) The use of asbestos-cement pipe for finished water distribution and the corrosive nature of the water.

(4) A waiver remains in effect for the initial monitoring of the first three (3) year compliance period.

Systems not receiving a waiver must monitor in accordance with the provisions of subdivision (1).

(5) A system vulnerable to asbestos contamination due solely to corrosion of asbestos-cement pipe shall take one (1) sample at a tap served by asbestos-cement pipe and under conditions where asbestos contamination is most likely to occur.

(6) A system vulnerable to asbestos contamination due solely to source water shall monitor in accordance with the provision of subsection (c).

(7) A system vulnerable to asbestos contamination due both to its source water supply and corrosion of asbestos-cement pipe shall take one (1) sample at a tap served by asbestos-cement pipe and under conditions where asbestos contamination is most likely to occur.

(8) A system which exceeds the MCLs as determined in section 4 of this rule shall monitor quarterly beginning in the next quarter after the violation occurred.

(9) The commissioner may decrease the quarterly monitoring requirement to the frequency specified in subdivision (1) provided the commissioner has determined that the system is reliably and consistently below the MCL. In no case can the commissioner make this determination unless a ground water system takes a minimum of two (2) quarterly samples and a surface (or combined surface/ground) water system takes a minimum of four (4) quarterly samples.

(10) If monitoring data collected after January 1, 1990, are generally consistent with the requirements of this subsection, then the commissioner may allow systems to use that data to satisfy the monitoring requirement for the initial compliance period beginning January 1, 1993.

(e) The frequency of monitoring conducted for nickel and to determine compliance with the MCLs in section 4 of this rule for antimony, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, selenium, and thallium shall be as follows:

(1) Ground water systems shall take one (1) sample at each sampling point during each compliance period. Surface water systems (or combined surface/ground) shall take one (1) sample annually at each sampling point.

(2) The system may apply to the commissioner for a waiver from the monitoring frequencies specified in subdivision (1).

(3) A condition of the waiver shall require that a system take a minimum of one (1) sample while the waiver is effective. The term during which the waiver is effective shall not exceed one (1) compliance cycle which is nine (9) years.

(4) The commissioner may grant a waiver provided surface water systems have monitored annually for at

least three (3) years and ground water systems have conducted a minimum of three (3) rounds of monitoring. (At least one (1) sample shall have been taken since January 1, 1990.) Both surface and ground water systems shall demonstrate that all previous analytical results were less than the maximum contaminant level. Systems that use a new water source are not eligible for a waiver until three (3) rounds of monitoring from the new source have been completed. The commissioner may grant a public water system a waiver for monitoring of cyanide, provided that the commissioner determines that the system is not vulnerable due to lack of any industrial source of cyanide.

(5) In determining the appropriate reduced monitoring frequency, the commissioner shall consider the following:

(A) Reported concentrations from all previous monitoring.

(B) The degree of variation in reported concentrations.

(C) Other factors which may affect contaminant concentrations such as:

(i) changes in ground water pumping rates;

(ii) changes in the system's configuration;

(iii) changes in the system's operating procedures; or

(iv) changes in stream flows or characteristics.

(6) A decision by the commissioner to grant a waiver shall be made in writing and shall set forth the basis for the determination. The determination may be initiated by the commissioner or upon an application by the public water system. The public water system shall specify the basis for its request. The commissioner shall review and, where appropriate, revise the determination of the appropriate monitoring frequency when the system submits new monitoring data or when other data relevant to the system's appropriate monitoring frequency becomes available.

(7) Systems which exceed the MCLs as calculated in subsection (k) shall monitor quarterly beginning in the next quarter after the violation occurred.

(8) The commissioner may decrease the quarterly monitoring requirement to the frequencies specified in subdivisions (1) and (2) provided it has determined that the system is reliably and consistently below the MCL. In no case can the commissioner make this determination unless a ground water system takes a minimum of two (2) quarterly samples and a surface water system takes a minimum of four (4) quarterly samples.

(f) All public water systems (community, nontransient noncommunity, and transient noncommunity systems) shall monitor to determine compliance with the MCL for nitrate in section 4(a) of this rule under the following

monitoring schedules:

- (1) Community and nontransient noncommunity water systems served by ground water systems shall monitor annually beginning January 1, 1993; systems served by surface water shall monitor quarterly beginning January 1, 1993.
  - (2) For community and nontransient noncommunity water systems, the repeat monitoring frequency for ground water systems shall be quarterly for at least one (1) year following any one (1) sample in which the concentration is greater than or equal to fifty percent (50%) of the MCL. The commissioner may allow a ground water system to reduce the sampling frequency to annually after four (4) consecutive quarterly samples are reliably and consistently less than the MCL.
  - (3) For community and nontransient noncommunity water systems, the commissioner may allow a surface water system to reduce the sampling frequency to annually if all analytical results from four (4) consecutive quarters are less than fifty percent (50%) of the MCL. A surface water system shall return to quarterly monitoring if any one (1) sample is greater than or equal to fifty percent (50%) of the MCL.
  - (4) Each transient noncommunity water system shall monitor annually beginning January 1, 1993.
  - (5) After the initial round of quarterly sampling is completed, each community and nontransient noncommunity system which is monitoring annually shall take subsequent samples during the quarter which previously resulted in the highest analytical result.
- (g) All public water systems (community, nontransient noncommunity, and transient noncommunity systems) shall monitor to determine compliance with the MCL for nitrite in section 4(a) of this rule under the following monitoring schedules:
- (1) All public water systems shall take one (1) sample at each sampling point in the compliance period beginning January 1, 1993, and ending December 31, 1995.
  - (2) After the initial sample, systems where an analytical result for nitrite is less than fifty percent (50%) of the MCL shall monitor at the frequency specified by the commissioner.
  - (3) For community, nontransient noncommunity, and transient noncommunity water systems, the repeat monitoring frequency for any water system shall be quarterly for at least one (1) year following any one (1) sample in which the concentration is greater than or equal to fifty percent (50%) of the MCL. The commissioner may allow a system to reduce the sampling frequency from quarterly to annually after determining the system is reliably and consistently less than the MCL.
  - (4) Systems which are monitoring annually shall take

each subsequent sample during the quarter which previously resulted in the highest analytical result.

(h) Confirmation sampling shall be as follows:

- (1) Where the results of sampling for antimony, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, selenium, or thallium indicate the MCL has been exceeded, the commissioner may require that one (1) additional sample be collected as soon as possible after the initial sample was taken (but not to exceed two (2) weeks) at the same sampling point.
  - (2) Where nitrate or nitrite sampling results indicate the MCL has been exceeded, the system shall take a confirmation sample within twenty-four (24) hours of the system's receipt of notification of the analytical results of the first sample. Systems unable to comply with the twenty-four (24) hour sampling requirement must immediately notify the consumers served by the public water system in accordance with 327 IAC 8-2.1-7 through 327 IAC 8-2.1-16. Systems exercising this option must take and analyze a confirmation sample within two (2) weeks of notification of the analytical results of the first sample.
  - (3) If a commissioner-required confirmation sample is taken for any contaminant, the results of the initial and confirmation sample shall be averaged. The resulting average shall be used to determine the system's compliance in accordance with subsection (k). The commissioner has the discretion to delete results of obvious sampling errors.
- (i) The commissioner may require more frequent monitoring than specified in subsections (d) through (g) or may require confirmation samples for positive and negative results.
- (j) Systems may apply to the commissioner to conduct more frequent monitoring than the minimum monitoring frequencies specified in this section.
- (k) Compliance with section 4 of this rule shall be determined based on the analytical results obtained at each sampling point in the following manner:
- (1) For systems which are conducting monitoring at a frequency greater than annual, compliance with the MCLs for antimony, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, selenium, or thallium is determined by a running annual average at each sampling point. If the average at any sampling point is greater than the MCL, then the system is out of compliance. If any one (1) sample would cause the annual average to be exceeded, then the system is out of compliance immediately. Any sample below the method detection limit shall be calculated at zero (0) for the purpose of determining the annual average.

(2) For systems which are monitoring annually, or less frequently, the system is out of compliance with the MCLs for antimony, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, selenium, or thallium if the level of a contaminant at any sampling point is greater than the MCL. If a confirmation sample is required by the commissioner, the determination of compliance will be based on the average of the two (2) samples.

(3) Compliance with the MCLs for nitrate and nitrite is determined based on one (1) sample if the levels of these contaminants are below the MCLs. If the levels of nitrate or nitrite, or both, exceed the MCLs in the initial sample, a confirmation sample is required in accordance with subsection (h)(2), and compliance shall be determined based upon the average of the initial and confirmation samples.

(4) If a public water system has a distribution system separable from other parts of the distribution system with no interconnections, the commissioner may allow the system to give public notice to only the area served by that portion of the system which is out of compliance.

(l) The frequency of monitoring conducted to determine compliance with the MCL for arsenic shall be as follows:

(1) Analyses for all community water systems utilizing surface water sources shall be sampled annually.

(2) Analyses for all community water systems utilizing only ground water sources shall be repeated at three (3) year intervals.

(3) The commissioner has the authority to determine compliance or initiate enforcement action based on analytical results.

(4) If the result of an analysis conducted as required in this section indicates that the results exceed the MCL as determined in section 4 of this rule, the supplier of water shall report to the state within seven (7) days and initiate three (3) additional analyses at the same sampling point within one (1) month.

(5) When the average of four (4) analyses made pursuant to this section, rounded to the same number of significant figures as the MCL for the arsenic, exceeds the MCL, the supplier of water shall notify the commissioner and give notice to the public under section 16 of this rule. Monitoring after public notification shall be at a frequency set by the commissioner and shall continue until the MCL has not been exceeded in two (2) consecutive samples or until a monitoring schedule as a condition to an enforcement action shall become effective.

(m) Each public water system shall monitor at the time designated by the commissioner during each compliance

period.

(n) Sample collection for antimony, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, nitrate, nitrite, selenium, and thallium under this section shall be conducted using the sample preservation, container, and maximum holding time procedures specified in the following table:

<u>Contaminant</u>	<u>Preservative</u> <sup>3</sup>	<u>Container</u> <sup>1</sup>	<u>Time</u> <sup>2</sup>
Antimony	HNO <sub>3</sub>	P or G	6 months
Asbestos	4°C	P or G	48 hours <sup>4</sup>
Barium	HNO <sub>3</sub>	P or G	6 months
Beryllium	HNO <sub>3</sub>	P or G	6 months
Cadmium	HNO <sub>3</sub>	P or G	6 months
Chromium	HNO <sub>3</sub>	P or G	6 months
Cyanide	4°C, NaOH	P or G	14 days
Fluoride	none	P or G	1 month
Mercury	HNO <sub>3</sub>	P or G	28 days
Nickel	HNO <sub>3</sub>	P or G	6 months
Nitrate	4°C	P or G	48 hours <sup>5</sup>
Nitrate-Nitrite <sup>6</sup>	H <sub>2</sub> SO <sub>4</sub>	P or G	28 days
Nitrite	4°C	P or G	48 hours
Selenium	HNO <sub>3</sub>	P or G	6 months
Thallium	HNO <sub>3</sub>	P or G	6 months

<sup>1</sup>P = Plastic, hard or soft; G = glass.

<sup>2</sup>In all cases, samples should be analyzed as soon after collection as possible. Follow additional (if any) information on preservation, containers, or holding times that is specified in method.

<sup>3</sup>When indicated, samples must be acidified at the time of collection to pH < 2 with concentrated acid or adjusted with sodium hydroxide to pH > 12. When chilling is indicated the sample must be shipped and stored at four (4) degrees Celsius or less.

<sup>4</sup>Instructions for containers, preservation procedures, and holding times as specified in Method 100.2 must be adhered to for all compliance analyses including those conducted with Method 100.1.

<sup>5</sup>If the sample is chlorinated, the holding time for an unacidified sample kept at four (4) degrees Celsius is extended to fourteen (14) days.

<sup>6</sup>Nitrate-Nitrite refers to a measurement of total nitrate. (*Water Pollution Control Board; 327 IAC 8-2-4.1; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1007; filed Aug 24, 1994, 8:15 a.m.: 18 IR 23; filed Aug 25, 1997, 8:00 a.m.: 21 IR 34; errata filed Dec 10, 1997, 3:45 p.m.: 21 IR 1347; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3946; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1080*)

### 327 IAC 8-2-4.2 Analytical methods for inorganic chemical testing

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3;  
IC 13-18-16  
**Affected:** IC 13-11-2; IC 13-14-8; IC 13-18-1; IC 13-18-2

Sec. 4.2. (a) Analyses conducted to determine compliance with section 4 of this rule shall be made in accordance with one (1) of the following methods for each contaminant:

- (1) Antimony as follows:
    - (A) Atomic absorption; furnace, Method 3113B\*.
    - (B) Atomic absorption; platform, Method 200.9\*.
    - (C) ICP-mass spectrometry, Method 200.8\*.
    - (D) Hydride-atomic absorption, Method D-3697-92\*.
  - (2) Arsenic as follows:
    - (A) Atomic absorption; furnace, Method D-2972-93C\* or Method 3113B\*.
    - (B) Hydride-atomic adsorption, Method D-2972-93B\* or Method 3114B\*.
    - (C) Atomic absorption, platform, Method 200.9\*.
    - (D) Inductively coupled plasma technique, Method 200.7\* or Method 3120B\*.
    - (E) ICP-mass spectrometry, Method 200.8\*.
  - (3) Asbestos, transmission electron microscopy, Method 100.1\* or Method 100.2\*.
  - (4) Barium as follows:
    - (A) Atomic absorption; furnace, Method 3113B\*.
    - (B) Atomic absorption; direct, Method 3111D\*.
    - (C) Inductively coupled plasma, Method 200.7\* or Method 3120B\*.
    - (D) ICP-mass spectrometry, Method 200.8\*.
  - (5) Beryllium as follows:
    - (A) Atomic absorption; furnace, Method D-3645-93B or Method 3113B.
    - (B) Atomic absorption; platform, Method 200.9\*.
    - (C) Inductively coupled plasma, Method 200.7\* or Method 3120B\*.
    - (D) ICP-mass spectrometry, Method 200.8.
  - (6) Cadmium as follows:
    - (A) Atomic absorption; furnace, Method 3113B\*.
    - (B) Inductively coupled plasma, Method 200.7\*.
    - (C) ICP-mass spectrometry, Method 200.8\*.
    - (D) Atomic absorption; platform, Method 200.9\*.
  - (7) Chromium as follows:
    - (A) Atomic absorption; furnace, Method 3113B\*.
    - (B) Inductively coupled plasma, Method 200.7\* or Method 3120B\*.
    - (C) ICP-mass spectrometry, Method 200.8\*.
    - (D) Atomic absorption; platform, Method 200.9\*.
  - (8) Cyanide as follows:
    - (A) Manual distillation followed by:
      - (i) Spectrophotometric; amenable, Method D-2036-91B\* or Method 4500-CN-G\*.
      - (ii) Spectrophotometric; manual, Method D-2036-91A\*, Method 4500-CNE\*, or Method I-3300-85\*.
    - (iii) Spectrophotometric; semiautomated, Method 335.4\*.
    - (iv) Method 4500-CN-C\*.
    - (v) Method D-2036-91A\*.
  - (B) Selective electrode, Method 4500-CN-F\*.
- (9) Fluoride as follows:
  - (A) Ion chromatography, Method 300.0\*, Method D-4327-91\*, or Method 4110B\*.
  - (B) Manual distillation; color. SPADNS, Method 4500F-B, D\*.
  - (C) Manual electrode, Method D1179-93B\* or Method 4500F-C\*.
  - (D) Automated electrode, Method 380-75WE\*.
  - (E) Automated alizarin, Method 4500F-E\* or Method 129-71W\*.
- (10) Mercury as follows:
  - (A) Manual cold vapor, Method 245.1, Method D3223-91\*, or Method 3112B\*.
  - (B) Automated cold vapor, Method 245.2\*.
  - (C) ICP-mass spectrometry, Method 200.8\*.
- (11) Nickel as follows:
  - (A) Atomic absorption; furnace, Method 3113B\*.
  - (B) Atomic absorption; platform, Method 200.9.
  - (C) Atomic absorption; direct, Method 3111B\*.
  - (D) Inductively coupled plasma, Method 200.7\* Method 3120B\*.
  - (E) ICP-mass spectrometry, Method 200.8\*.
- (12) Nitrate as follows:
  - (A) Manual cadmium reduction, Method D3867-90B\* or Method 4500-NO<sub>3</sub>-E\*.
  - (B) Automated cadmium reduction, Method 353.2\*, Method D3867-90A\*, or Method 4500-NO<sub>3</sub>-F\*.
  - (C) Ion selective electrode, Method 4500-NO<sub>3</sub>-D\* or Method 601\*.
  - (D) Ion chromatography, Method 300.0\*, Method D4327-91\*, Method 4110B\*, or Method B-1011\*.
- (13) Nitrite as follows:
  - (A) Ion chromatography, Method 300.0\*, Method D4327-91\*, Method 4110B\*, or Method B-1011\*.
  - (B) Automated cadmium reduction, Method 353.2\*, Method D3867-90A\*, or Method 4500-NO<sub>3</sub>-F\*.
  - (C) Manual cadmium reduction, Method D3867-90B\* or Method 4500-NO<sub>3</sub>-E\*.
  - (D) Spectrophotometric, Method 4500-NO<sub>2</sub>-B\*.
- (14) Selenium as follows:
  - (A) Hydride-atomic absorption, Method D3859-93A\* or Method 3114B\*.
  - (B) ICP-mass spectrophotometry, Method 200.8\*.
  - (C) Atomic absorption; platform, Method 200.9\*.
  - (D) Atomic absorption; furnace, Method D3859-93B\* or Method 3113B\*.
- (15) Thallium as follows:

(A) Atomic absorption; platform, Method 200.9\*.

(B) ICP-mass spectrometry, Method 200.8\*.

(b) Analysis under this section shall only be conducted by laboratories that have been certified by EPA or the commissioner. Laboratories may conduct sample analyses under provisional certification until January 1, 1996. To receive certification to conduct analyses for antimony, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, nitrate, nitrite, selenium, and thallium, the laboratory must do the following:

(1) Successfully analyze performance evaluation (PE) samples provided by EPA, the commissioner, or by a third party with approval of the EPA or the commissioner, at least once a year.

(2) For each contaminant that has been included in the PE sample and for each method for which the laboratory desires certification achieve quantitative results on the analyses that are within the following acceptance limits:

Contaminant    Acceptance Limit

Antimony	±30% at ≥0.006 mg/l
Arsenic	2 standard deviations based on study statistics
Asbestos	2 standard deviations based on study statistics
Barium	±15% at ≥0.15 mg/l
Beryllium	±15% at ≥0.001 mg/l
Cadmium	±20% at ≥0.002 mg/l
Chromium	±15% at ≥0.01 mg/l
Cyanide	±25% at ≥0.1 mg/l
Fluoride	±10% at ≥1 to 10 mg/l
Mercury	±30% at ≥0.0005 mg/l
Nickel	±15% at ≥0.01 mg/l
Nitrate	±10% at ≥0.4 mg/l
Nitrite	±15% at ≥0.4 mg/l
Selenium	±20% at ≥0.01 mg/l
Thallium	±30% at ≥0.002 mg/l

\*Methods referenced in this section may be obtained as follows:

(1) Method 245.2, "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983, available at NTIS, PB84-128677.

(2) Methods 200.8, 200.9, 200.7, and 245.1 may be found in "Methods for the Determination of Metals in Environmental Samples—Supplement I", EPA-600/94-111, May 1994, available from NTIS, PB95-125472, 800-553-6847.

(3) Methods D-3697-92, D-2972-93C, D-2972-93B, D-3645-93B, D2036-91B, D2036-91A, D4327-91, D1179-93B, D3223-91, D3867-90A, D3867-90B,

D3859-93A, and D3859-93B, may be found in "Annual Book of ASTM Standards", 1994 and 1996, Vols. 11.01 and 11.02, American Society for Testing and Materials, available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

(4) Methods 3113B, 3120B, 3114B, 3111D, 4500-CN-C, 4500-CN-G, 4500-CN-E, 4500-CN-F, 4110B, 4500F-B, D, 4500F-C, 4500F-E, 3112B, 3111B, 4500-NO<sub>3</sub>-F, 4500-NO<sub>3</sub>-D, 4500-NO<sub>3</sub>-E, and 4500-NO<sub>2</sub>-B may be found in "18<sup>th</sup> Edition of Standard Methods for the Examination of Water and Wastewater", 1992, or "19<sup>th</sup> Edition of Standard Methods for the Examination of Water and Wastewater", 1995, American Public Health Association, available from the American Public Health Association, 1015 Fifteenth Street NW, Washington, D.C. 20005. Either edition may be used.

(5) Method I-3300-85 may be found in Techniques of Water Resources Investigation of the U.S. Geological Survey, Book 5, Chapter A-1, 3<sup>rd</sup> Edition, 1989, available from Information Services, U.S. Geological Survey, Federal Center, Box 25286, Denver, Colorado 80225-0425.

(6) Methods 335.4, 300.0, and 353.2 may be found in "Methods for the Determination of Inorganic Substances in Environmental Samples", EPA-600/R-93-100, August 1993, available from NTIS, PB94-120821.

(7) Method 601 may be found in Technical Bulletin 601 "Standard Method of Test for Nitrate in Drinking Water", July 1994, PN 221890-001, Analytical Technology, Inc., available from ATI Orion, 529 Main Street, Boston, Massachusetts 02129.

(8) Method B-1011 may be found in "Waters Test Method for Determination of Nitrate/Nitrite in Water Using Single Column Ion Chromatography", August 1987, available from Waters Corporation, 34 Maple Street, Milford, Massachusetts 01757.

(9) Method 100.1 may be found in "Analytical Methods for Determination of Asbestos Fibers in Water", EPA-600/4-83-043, EPA, September 1983, available from NTIS, PB83-260471.

(10) Method 100.2 may be found in "Determination of Asbestos Structure Over 10-µm in Length in Drinking Water", EPA-600/R-94-134, June 1994, available from NTIS, PB94-201902.

(11) Method 129-71W may be found in "Fluoride in Water and Wastewater", December 1972, Technicon Industrial Systems, available from Bran & Luebbe, 1025 Busch Parkway, Buffalo Grove, Illinois 60089.

(12) Method 380-75WE may be found in "Fluoride in Water and Wastewater", February 1976, Technicon Industrial Systems, available from Bran & Luebbe,

1025 Busch Parkway, Buffalo Grove, Illinois 60089. These methods are also available for copying at the Indiana Department of Environmental Management, Office of Water Quality, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-2-4.2; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1008; errata filed Aug 6, 1991, 3:45 p.m.: 14 IR 2258; filed Aug 24, 1994, 8:15 a.m.: 18 IR 29; errata filed Oct 11, 1994, 2:45 p.m.: 18 IR 531; filed Aug 25, 1997, 8:00 a.m.: 21 IR 40; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3951*)

**327 IAC 8-2-5 Organic chemicals other than volatile compounds; maximum contaminant levels**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 5. (a) The MCLs for the following synthetic organic chemicals apply to all community water systems and nontransient noncommunity water systems, except as provided in subsection (c) for total trihalomethanes:

		<u>Level in Milligrams Per Liter</u>
<u>Contaminant</u>		<u>Liter</u>
Total trihalomethanes		0.10
<u>CAS No.</u>	<u>Contaminant</u>	<u>MCL (mg/l)</u>
15972-60-8	Alachlor	0.002
1912-24-9	Atrazine	0.003
50-32-8	Benzo[a]pyrene	0.0002
1563-66-2	Carbofuran	0.04
57-74-9	Chlordane	0.002
75-99-0	Dalapon	0.2
96-12-8	1,2-dibromo-3-chloropropane (DBCP)	0.0002
103-23-1	Di(2-ethylhexyl)adipate	0.4
117-81-7	Di(2-ethylhexyl)phthalate	0.006
88-85-7	Dinoseb	0.007
85-00-7	Diquat	0.02
94-75-7	2,4-D	0.07
145-73-3	Endothall	0.1
72-20-8	Endrin	0.002
106-93-4	Ethylene dibromide	0.00005
1071-53-6	Glyphosate	0.7
76-44-8	Heptachlor	0.0004
1024-57-3	Heptachlor epoxide	0.0002
118-74-1	Hexachlorobenzene	0.001
77-47-4	Hexachlorocyclopentadiene	0.05
58-89-9	Lindane	0.0002
72-43-5	Methoxychlor	0.04
23135-22-0	Oxamyl (vydate)	0.2
1918-02-1	Picloram	0.5

1336-36-3	Polychlorinated biphenyls	0.0005
87-86-5	Pentachlorophenol	0.001
122-34-9	Simazine	0.004
8001-35-2	Toxaphene	0.003
1746-01-6	2,3,7,8-TCDD (dioxin)	$3 \times 10^{-8}$
93-72-1	2,4,5-TP	0.05

(b) For the synthetic organic chemicals listed in this section other than total trihalomethanes, monitoring frequency is specified in section 5.1 of this rule, and analytical methods are specified in section 5.2 of this rule.

(c) The MCL of one-tenth (0.10) milligram per liter for total trihalomethanes applies as follows:

(1) A subpart H community water system which serves a population of ten thousand (10,000) or more individuals until December 31, 2001.

(2) A CWS that uses only ground water not under the direct influence of surface water and serve a population of ten thousand (10,000) or more individuals until December 31, 2003.

Compliance with the MCL for total trihalomethanes is calculated under section 5.3 of this rule. After December 31, 2003, this subsection is no longer applicable.

(d) The commissioner hereby identifies, as indicated in the following table, granular activated carbon (GAC), packed tower aeration (PTA), or oxidation (OX) as the best technology, treatment technique, or other means available for achieving compliance with the MCL for synthetic organic contaminants identified in subsection (a):

		BAT for Synthetic Organic Contaminants Listed in Subsection (a)		
<u>CAS No.</u>	<u>Contaminant</u>	<u>GAC</u>	<u>PTA</u>	<u>OX</u>
15972-60-8	Alachlor	X		
1912-24-9	Atrazine	X		
50-32-8	Benzo[a]pyrene	X		
1563-66-2	Carbofuran	X		
57-74-9	Chlordane	X		
94-75-7	2,4-D	X		
75-99-0	Dalapon	X		
96-12-8	1,2-dibromo-3-chloropropane (DBCP)	X	X	
103-23-1	Di(2-ethylhexyl)adipate	X	X	
117-81-7	Di(2-ethylhexyl)phthalate	X		
88-85-7	Dinoseb	X		
85-00-7	Diquat	X		
145-73-3	Endothall	X		
72-20-8	Endrin	X		
106-93-4	Ethylene dibromide (EDB)	X	X	
1071-53-6	Glyphosate			X
76-44-8	Heptachlor	X		
1024-57-3	Heptachlor epoxide	X		

118-74-1	Hexachlorobenzene	X	
77-47-3	Hexachlorocyclopentadiene	X	X
58-89-9	Lindane	X	
72-43-5	Methoxychlor	X	
23135-22-0	Oxamyl (vydate)	X	
1918-02-1	Picloram	X	
1336-36-3	Polychlorinated biphenyls (PCBs)	X	
87-86-5	Pentachlorophenol	X	
93-72-1	2,4,5-TP (silvex)	X	
122-34-9	Simazine	X	
1746-01-6	2,3,7,8-TCDD (dioxin)	X	
8001-35-2	Toxaphene	X	X

*(Water Pollution Control Board; 327 IAC 8-2-5; filed Sep 24, 1987, 3:00 p.m.: 11 IR 706; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1009; errata filed Aug 6, 1991, 3:45 p.m.: 14 IR 2258; filed Aug 24, 1994, 8:15 a.m.: 18 IR 32; errata filed Oct 11, 1994, 2:45 p.m.: 18 IR 531; filed Aug 25, 1997, 8:00 a.m.: 21 IR 43; filed May 1, 2003, 12:00 p.m.: 26 IR 2812)*

**327 IAC 8-2-5.1 Collection of samples for organic chemical testing other than volatile organic compounds and total trihalomethanes**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 5.1. To determine compliance with section 5(a) of this rule, collection of samples for organic chemical testing, other than volatile organic compounds and total trihalomethanes, shall be made as follows:

- (1) Ground water systems shall take a minimum of one (1) sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). Each sample must be taken at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.
- (2) Surface water systems, including those systems with a combination of surface and ground sources, shall take a minimum of one (1) sample at points in the distribution system that are representative of each source or at each entry point to the distribution system after treatment (hereafter called a sampling point). Each sample must be taken at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.
- (3) If the system draws water from more than one (1) source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating

conditions such as when water representative of all sources is being used.

(4) The monitoring frequency is as follows:

(A) Each community and nontransient noncommunity water system shall take four (4) consecutive quarterly samples for each contaminant listed in section 5(a) of this rule during each compliance period beginning with the initial compliance period.

(B) Systems serving more than three thousand three hundred (3,300) persons which do not detect a contaminant in the initial compliance period may reduce the sampling frequency to a minimum of two (2) quarterly samples in one (1) year during each repeat compliance period.

(C) Systems serving less than or equal to three thousand three hundred (3,300) persons which do not detect a contaminant in the initial compliance period may reduce the sampling frequency to a minimum of one (1) sample during each repeat compliance period.

(5) Each community and nontransient noncommunity water system may apply to the commissioner for a waiver from the requirement of subdivision (4). A system must reapply for a waiver for each compliance period.

(6) The commissioner may grant a waiver after evaluating the knowledge of previous use, including transport, storage, or disposal of the contaminant within the watershed or zone of influence of the system. If a determination by the commissioner reveals no previous use of the contaminant within the watershed or zone of influence, a waiver may be granted. If previous use of the contaminant is unknown or it has been used previously, then the following factors shall be used to determine whether a waiver is granted:

(A) Previous analytical results.

(B) The proximity of the system to a potential point or nonpoint source of contamination. (Point sources include spills and leaks of chemicals at or near a water treatment facility or at manufacturing, distribution, or storage facilities, or from hazardous and municipal waste landfills and other waste handling or treatment facilities. Nonpoint sources include the use of pesticides to control insect and weed pests on agricultural areas, forest lands, home and gardens, and other land application uses).

(C) The environmental persistence and transport of the pesticide or polychlorinated biphenyls (PCBs).

(D) How well the water source is protected against contamination due to such factors as:

- (i) depth of the well;
- (ii) the type of soil; and
- (iii) the integrity of the well casing.

- (E) Elevated nitrate levels at the water supply source.
- (F) Use of PCBs in equipment used in the production, storage, or distribution of water, including, but not limited to, PCBs used in pumps or transformers.
- (7) If an organic contaminant listed in section 5(a) of this rule is detected as defined by subdivision (16), in any sample, then the monitoring requirements are as follows:
- (A) Each system must monitor quarterly at each sampling point which resulted in a detection.
- (B) The commissioner may decrease the quarterly monitoring requirement specified in clause (A) provided it has determined that the system is reliably and consistently below the MCL. In no case shall the commissioner make this determination unless a ground water system takes a minimum of two (2) quarterly samples and a surface water system takes a minimum of four (4) quarterly samples.
- (C) After the commissioner determines the system is reliably and consistently below the MCL, the commissioner may allow the system to monitor annually. Systems which monitor annually must monitor during the quarter that previously yielded the highest analytical result.
- (D) Systems which have three (3) consecutive annual samples with no detection of contaminant may apply to the commissioner for a waiver as specified in subdivision (6).
- (E) If monitoring results in detection of one (1) or more of certain related contaminants (aldicarb, aldicarb sulfoxide, aldicarb sulfone, heptachlor, and heptachlor epoxide), then subsequent monitoring shall include analyses for all related contaminants.
- (8) Systems which violate the requirements of section 5(a) of this rule as determined by subdivision (11) must monitor quarterly. After a minimum of four (4) quarterly samples shows the system is in compliance and the commissioner determines the system is reliably and consistently below the MCL, as specified in subdivision (11), the system shall monitor at the frequency specified in subdivision (7)(C).
- (9) The commissioner may require a confirmation sample for positive or negative results. If a confirmation sample is required by the commissioner, the result must be averaged with the first sampling result and the average used for the compliance determination as specified in subdivision (11). The commissioner has the discretion to delete results of obvious sampling errors from this calculation.
- (10) The commissioner may reduce the total number of samples a system must analyze by allowing the use of compositing. Composite samples from a maximum of five (5) sampling points are allowed, provided that the

detection limit of the method used for analysis is less than one-fifth ( $1/5$ ) of the MCL. Compositing of samples must be done in the laboratory and analyzed within fourteen (14) days of sample collection in accordance with the following:

- (A) When a composite sample is analyzed, if the concentration in the composite sample detects one (1) or more contaminants listed in section 5(a) of this rule, then a follow-up sample must be analyzed within fourteen (14) days from each sampling point included in the composite and analyzed for that contaminant.
- (B) If duplicates of the original sample taken from each sampling point used in the composite samples are available, the system may use these instead of resampling. The duplicates must be analyzed and the results reported to the commissioner within fourteen (14) days after completion of the composite analysis or before the holding time for the initial sample is exceeded, whichever is sooner.
- (C) If the population served by the system is greater than three thousand three hundred (3,300) persons, then compositing may only be permitted by the commissioner at sampling points within a single system. In systems serving less than or equal to three thousand three hundred (3,300) persons, the commissioner may permit compositing among different systems provided the five (5) sample limit is maintained.
- (11) Compliance with section 5(a) of this rule shall be determined based on the analytical results obtained at each sampling point in the following manner:
- (A) For systems which are conducting monitoring at a frequency greater than annual, compliance is determined by a running annual average of all samples taken at each sampling point. If the annual average of any sampling point is greater than the MCL, then the system is out of compliance. If the initial sample or a subsequent sample would cause the annual average to be exceeded, then the system is out of compliance immediately. Any samples below the detection limit shall be calculated as zero (0) for purposes of determining the annual average.
- (B) If monitoring is conducted annually, or less frequently, the system is out of compliance if the level of a contaminant at any sampling point is greater than the MCL. If a confirmation sample is required by the commissioner, the determination of compliance will be based on the average of two (2) samples.
- (12) If monitoring data collected after January 1, 1990, are generally consistent with the requirements of this section and section 5.2 of this rule, then the commissioner may allow systems to use that data to satisfy the

monitoring requirement for the initial compliance period.

(13) The commissioner may increase the required monitoring frequency, where necessary, to detect variations within the system such as fluctuations in concentration due to seasonal use and changes in water source.

(14) The commissioner has the authority to determine compliance or initiate enforcement action based upon analytical results and other information compiled by the commissioner's sanctioned representatives or agencies, or both.

(15) Each public water system shall monitor at the time designated by the commissioner within each compliance period.

(16) Method detection levels for contaminants listed in section 5(a) of this rule are as follows:

<u>Contaminant</u>	<u>Detection Limit</u> (mg/l)
Alachlor	0.0002
Atrazine	0.0001
Benzo[a]pyrene	0.00002
Carbofuran	0.0009
Chlordane	0.0002
Dalapon	0.001
1,2-dibromo-3-chloropropane (DBCP)	0.00002
Di(2-ethylhexyl)adipate	0.0006
Di(2-ethylhexyl)phthalate	0.0006
Dinoseb	0.0002
Diquat	0.0004
2,4-D	0.0001
Endothall	0.009
Endrin	0.00001
Ethylene dibromide (EDB)	0.00001
Glyphosate	0.006
Heptachlor	0.00004
Heptachlor epoxide	0.00002
Hexachlorobenzene	0.0001
Hexachlorocyclopentadiene	0.0001
Lindane	0.00002
Methoxychlor	0.0001
Oxamyl	0.002
Picloram	0.0001
Polychlorinated biphenyls (PCBs) (as decachlorobiphenyl)	0.0001
Pentachlorophenol	0.00004
Simazine	0.00007

Toxaphene	0.001
2,3,7,8-TCDD (dioxin)	0.000000005
2,4,5-TP (silvex)	0.0002

(Water Pollution Control Board; 327 IAC 8-2-5.1; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1010; filed Aug 24, 1994, 8:15 a.m.: 18 IR 33; errata filed Oct 11, 1994, 2:45 p.m.: 18 IR 531; filed Aug 25, 1997, 8:00 a.m.: 21 IR 44; filed Apr 21, 1999, 3:22 p.m.: 22 IR 2862; errata filed Apr 28, 1999, 6:36 p.m.: 22 IR 2883; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3953; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1084)

### 327 IAC 8-2-5.2 Analytical methods for organic chemical testing other than volatile organic compounds and total trihalomethanes

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 5.2. (a) Analysis for the contaminants listed in section 5(a) of this rule shall be conducted using the following EPA methods or their equivalent as approved by EPA established as follows:

- (1) Dioxin, as described in Method 1613\*.
- (2) 2,4-D<sup>3</sup> (as acid, salts, and esters), as described in Method 515.2, Rev 1.1\*, Method 555\*, Method 515.1\*, Method 515.3\*, or Method D5317-93\*.
- (3) 2,4,5-TP<sup>3</sup> (silvex), as described in Method 515.2, Rev 1.1\*, Method 555\*, Method 515.1\*, Method 515.3\*, or Method D5317-93\*.
- (4) Alachlor<sup>1</sup>, as described in Method 505, Rev 2.1\*, Method 507, Rev 2.1\*, Method 525.2, Rev 2.0\*, Method 508.1, Rev 2.0\*, or Method 551.1, Rev 1.0\*.
- (5) Atrazine<sup>1</sup>, as described in Method 505, Rev 2.1\*, Method 507, Rev 2.1\*, Method 525.1\*, Method 508.1, Rev 2.0\*, or Method 551.1, Rev 1.0\*.
- (6) Benzo(a)pyrene, as described in Method 525.2, Rev 2.0\*, Method 550\*, or Method 550.1\*.
- (7) Carbofuran, as described in Method 531.1, Rev 3.1\*, or Method 6610\*.
- (8) Chlordane, as described in Method 505, Rev 2.1\*, Method 508, Rev 3.1\*, Method 525.2, Rev 2.0\*, or Method 508.1, Rev 2.0\*.
- (9) Dalapon, as described in Method 552.1, Rev 1.0\*, Method 515.1\*, Method 552.2, Rev 1.0\*, or Method 515.3\*.
- (10) Di(2-ethylhexyl)adipate, as described in Method 506, Rev 1.1\* or Method 525.2, Rev 2.0\*.
- (11) Di(2-ethylhexyl)phthalate, as described in Method 506, Rev 1.1\* or Method 525.2, Rev 2.0\*.
- (12) Dibromochloropropane (DBCP), as described in Method 504.1, Rev 1.1\* or Method 551.1, Rev 1.0\*.

- (13) Dinoseb<sup>3</sup>, as described in Method 515.2, Rev 1.1\*, Method 555\*, Method 515.1\*, or Method 515.3\*.
- (14) Diquat, as described in Method 549.2\*.
- (15) Endothall, as described in Method 548.1\*.
- (16) Endrin, as described in Method 505, Rev 2.1\*, Method 508, Rev 3.1\*, Method 525.2, Rev 2.0\*, Method 508.1, Rev 2.0\*, or Method 551.1, Rev 1.0\*.
- (17) Ethylene dibromide (EDB), as described in Method 504.1, Rev 1.1\* or Method 551.1, Rev 1.0\*.
- (18) Glyphosate, as described in Method 547\* or Method 6651\*.
- (19) Heptachlor, as described in Method 505, Rev 2.1\*, Method 508, Rev 3.1\*, Method 525.2, Rev 2.0\*, Method 508.1, Rev 2.0\*, or Method 551.1, Rev 1.0\*.
- (20) Heptachlor epoxide, as described in Method 505, Rev 2.1\*, Method 508, Rev 3.1\*, Method 525.2, Rev 2.0\*, Method 508.1, Rev 2.0\*, or Method 551.1, Rev 1.0\*.
- (21) Hexachlorobenzene, as described in Method 505, Rev 2.1\*, Method 508, Rev 3.1\*, Method 525.2, Rev 2.0\*, Method 508.1, Rev 2.0\*, or Method 551.1, Rev 1.0\*.
- (22) Hexachlorocyclopentadiene, as described in Method 505, Rev 2.1\*, Method 508, Rev 3.1\*, Method 525.2, Rev 2.0\*, Method 508.1, Rev 2.0\*, or Method 551.1, Rev 1.0\*.
- (23) Lindane, as described in Method 505, Rev 2.1\*, Method 508, Rev 3.1\*, Method 525.1\*, Method 508.1, Rev 2.0\*, or Method 551.1, Rev 1.0\*.
- (24) Methoxychlor, as described in Method 505, Rev 2.1\*, Method 508, Rev 3.1\*, Method 525.1\*, Method 508.1, Rev 2.0\*, or Method 551.1, Rev 1.0\*.
- (25) Oxymyl, as described in Method 531.1, Rev 3.1\* or Method 6610\*.
- (26) PCBs<sup>1</sup>:
- (A) as decachlorobiphenyl, as described in Method 508A\*, or
- (B) as arochlors, as described in Method 505, Rev 2.1\*, Method 508, Rev 3.1\*, Method 525.2, Rev 2.0\*, or Method 508.1, Rev 2.0\*.
- (27) Pentachlorophenol, as described in Method 515.2, Rev 1.1\*, Method 525.2, Rev 2.0\*, Method 555\*, Method 515.1\*, Method 515.3\*, or Method D5317-93\*.
- (28) Picloram<sup>3</sup>, as described in Method 515.2, Rev 1.1\*, Method 555\*, Method 515.1\*, Method 515.3\* or Method D5317-93\*.
- (29) Simazine<sup>1</sup>, as described in Method 505, Rev 2.1\*, Method 507, Rev 2.1\*, Method 525.2, Rev 2.0\*, Method 508.1, Rev 2.0\*, or Method 551.1, Rev 1.0\*.
- (30) Toxaphene, as described in Method 505, Rev 2.1\*, Method 508, Rev 3.1\*, Method 525.2, Rev 2.0\*,

or Method 508.1, Rev 2.0\*.

<sup>1</sup>Substitution of the detector specified in Method 505, Rev 2.1, Method 507, Rev 2.1, Method 508, Rev 3.1, or Method 508.1, Rev 3.0 for the purpose of achieving lower detection limits is allowed as follows. Either an electron capture or nitrogen phosphorus detector may be used provided all regulatory requirements and quality control criteria are met.

<sup>2</sup>PCBs are qualitatively identified as Arochlors and measured for compliance purposes as decachlorobiphenyl. Users of Method 505, Rev 2.1 may have more difficulty in achieving the required detection limits than users of Method 508.1, Rev 2.0, Method 525.2, Rev 2.0 or Method 508, Rev 3.1.

<sup>3</sup>Accurate determination of the chlorinated esters requires hydrolysis of the sample as described in Method 515.1, Method 515.2, Rev 1.1, Method 515.3, Method 555, and Method D5317-93.

(b) Analysis for PCBs shall be conducted as follows using the methods in subsection (a):

(1) Each system which monitors for PCBs shall analyze each sample using either Method 505, Rev 2.1\*, Method 508, Rev 3.1\*, Method 508.1, Rev 2.0\*, or Method 525.2, Rev 2.0\*. Users of Method 505, Rev 2.1 may have more difficulty in achieving the required Arochlor detection limits than users of Method 508.1, Rev 2.0, Method 525.2, Rev 2.0 or Method 508, Rev 3.1.

(2) If PCBs (as one (1) of seven (7) arochlors) are detected, as designated as follows, in any sample analyzed using Method 505, Rev 2.1\* or Method 508, Rev 3.1\*, the system shall reanalyze the sample using Method 508A\* to quantitate PCBs (as decachlorobiphenyl):

<u>Arochlor</u>	<u>Detection Limit (mg/l)</u>
1016	0.00008
1221	0.02
1232	0.0005
1242	0.0003
1248	0.0001
1254	0.0001
1260	0.0002

(3) Compliance with the PCB maximum contaminant level shall be determined based upon the quantitative results of analyses using Method 508A\*.

(c) Analysis under this section shall only be conducted by laboratories that have received certification by EPA or the commissioner and have met the following conditions:

(1) Successfully analyze performance evaluation (PE) samples provided by the EPA, the commissioner, or by a third party with the approval of the EPA or the commissioner, at least once per year by each method for which the laboratory desires certification.

(2) For each contaminant that has been included in the

PE sample achieve quantitative results on the analyses that are within the following acceptance limits:

<u>Contaminant</u>	<u>Acceptance Limits (Percent)</u>
DBCP	±40
EDB	±40
Alachlor	±45
Atrazine	±45
Benzo(a)pyrene	2 standard deviations
Carbofuran	±45
Chlordane	±45
Dalapon	2 standard deviations
Di(2-ethylhexyl)adipate	2 standard deviations
Di(2-ethylhexyl)phthalate	2 standard deviations
Dinoseb	2 standard deviations
Diquat	2 standard deviations
Endothall	2 standard deviations
Endrin	±30
Glyphosate	2 standard deviations
Heptachlor	±45
Heptachlor epoxide	±45
Hexachlorobenzene	2 standard deviations
Hexachlorocyclopentadiene	2 standard deviations
Lindane	±45
Methoxychlor	±45
Oxamyl	2 standard deviations
PCBs (as decachlorobiphenyl)	0-200
Picloram	2 standard deviations
Simazine	2 standard deviations
Toxaphene	±45
Pentachlorophenol	±50
2,3,7,8-TCDD (dioxin)	2 standard deviations
2,4-D	±50
2,4,5-TP (silvex)	±50

\*The methods referenced in this section may be obtained as follows:

- (1) Method 508A and Method 515.1 may be found in "Methods for the Determination of Organic Compounds in Drinking Water", EPA-600/4-88-039, December 1988, revised July 1991, available from NTIS, PB91-231480, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, (800) 553-6847.
- (2) Methods 547, 550, and 550.1 may be found in "Methods for the Determination of Organic Compounds in Drinking Water—Supplement I", EPA-600-4-90-020, July 1990, available from NTIS, PB91-146027, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, (800) 553-6847.
- (3) Methods 548.1, 549.1, 552.1, and 555 may be

found in "Methods for the Determination of Organic Compounds in Drinking Water—Supplement II", EPA-600/R-92-129, August 1992, available from NTIS, PB92-207703, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, (800) 553-6847.

(4) Methods 504.1, Rev 1.1, 505, Rev 2.1, 506, Rev 1.1, 507, Rev 2.1, 508, Rev 3.1, 508.1, Rev 2.0, 515.2, Rev 1.1, 525.2, Rev 2.0, 531.1, Rev 3.1, 551.1, Rev 1.0, and 552.2, Rev 1.0 may be found in "Methods for the Determination of Organic Compounds in Drinking Water - Supplement III", EPA-600/R-95-131, August 1995, available from NTIS, PB95-261616, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, (800) 553-6847.

(5) Method 1613 may be found in "Tetra-through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRGC/HRMS", EPA 821-B-94-005, October 1994, available from NTIS, PB95-104774, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, (800) 553-6847.

(6) Method 6651 may be found in "18<sup>th</sup> Edition of Standard Methods for the Examination of Water and Wastewater" and "19<sup>th</sup> Edition of Standard Methods for the Examination of Water and Wastewater", 1992 and 1995, American Public Health Association, available from the American Public Health Association, 1015 Fifteenth Street NW, Washington, D.C. 20005. Either edition may be used.

(7) Method 6610 may be found in "Supplement to the 18<sup>th</sup> Edition of Standard Methods for Water and Wastewater" or "19<sup>th</sup> Edition of Standard Methods for the Examination of Water and Wastewater", 1994 and 1995, American Public Health Association, available from the National Public Health Association, 1015 Fifteenth Street NW, Washington, D.C. 20005. Either publication may be used.

(8) Other required analytical test procedures germane to the conduct of these analyses are contained in "Technical Notes of Drinking Water Methods", EPA/600/R-94-173, October 1994, available from NTIS, PB95-104766, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, (800) 553-6847.

(9) EPA Methods 515.3 and 549.2 are available from U.S. EPA National Exposure Research Laboratory (NERL), 26 West Martin Luther King Drive, Cincinnati, Ohio 45268; the phone number is (513) 569-7586.

(10) Method D5317-93 may be found in the "Annual Book of ASTM Standards", 1996, Vol. 11.02, available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West

Conshohocken, Pennsylvania 19428. Method D5317-93 may also be found in any other edition of the "Annual Book of ASTM Standards" published from 1993 until the effective date of this rule.

These methods are available for copying at the Indiana Department of Environmental Management, Office of Water Quality, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board*; 327 IAC 8-2-5.2; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1011; errata filed Aug 6, 1991, 3:45 p.m.: 14 IR 2258; filed Aug 24, 1994, 8:15 a.m.: 18 IR 35; errata filed Oct 11, 1994, 2:45 p.m.: 18 IR 531; filed Aug 25, 1997, 8:00 a.m.: 21 IR 46; errata filed Dec 10, 1997, 3:45 p.m.: 21 IR 1347; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3956)

**327 IAC 8-2-5.3 Collection of samples for total trihalomethanes testing; community water systems**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-11-2; IC 13-14-8; IC 13-18-1; IC 13-18-2

Sec. 5.3. (a) To determine compliance with section 5 of this rule, each community water system which serves ten thousand (10,000) or more individuals and which adds a disinfectant (oxidant) to the water in any part of the drinking water treatment process shall collect and analyze samples for total trihalomethanes (TTHM) in accordance with this section. The minimum number of samples required to be taken by the system shall be based on the number of treatment plants used by the system, except that multiple wells drawing raw water from a single aquifer may, with the commissioner's approval, be considered one (1) treatment plant for determining the minimum number of samples. All samples taken within an established frequency shall be collected within a twenty-four (24) hour period.

(b) The requirements of subsection (a) apply as follows:

(1) Community water systems which utilize surface water sources in whole or in part, and community water systems which utilize only ground water sources and which have not been determined by the commissioner to qualify for the monitoring requirements of subsection (c) shall analyze for TTHM at quarterly intervals on at least four (4) water samples for each treatment plant used by the system. At least twenty-five percent (25%) of the samples shall be taken at locations within the distribution system reflecting the maximum residence time of the water in the system. The remaining seventy-five percent (75%) shall be taken at representative locations in the distribution

system, taking into account number of persons served, different sources of water, and different treatment methods employed. The results of all analyses per quarter shall be arithmetically averaged and reported to the commissioner within thirty (30) days of the system's receipt of such results. All samples collected shall be used in the computation of the average, unless the analytical results are invalidated for technical reasons. Sampling and analyses shall be conducted in accordance with the methods listed in subsection (e).

(2) Upon the written request of a community water system, the monitoring frequency required by subdivision (1) may be reduced by the commissioner to a minimum of one (1) sample analyzed for TTHM per quarter taken at a point in the distribution system reflecting the maximum residence time of the water in the system. Upon a written determination by the commissioner that the data from at least one (1) year of monitoring in accordance with subdivision (1) and local conditions demonstrate that TTHM concentrations will be consistently below the MCL.

(3) If, at any time during which the reduced monitoring frequency prescribed under this section applies, the results from any analysis exceed ten-hundredths (0.10) milligram per liter of TTHM and such results are confirmed by at least one (1) check sample taken promptly after such results are received, or if the system makes any significant change to its source of water or treatment program, the system shall immediately begin monitoring in accordance with the requirements of subdivision (1) which monitoring shall continue for at least one (1) year before the frequency may be reduced again. At the discretion of the commissioner, a system's monitoring frequency shall be increased above the minimum in those cases where it is necessary to detect variations of TTHM levels within the distribution system.

(c) Monitoring frequency required by this section may only be reduced as follows:

(1) Upon written request to the commissioner, a community water system utilizing only ground water sources may seek to have the monitoring frequency required by subsection (a) reduced to a minimum of one (1) sample for maximum TTHM potential per year for each treatment plant used by the system taken at a point in the distribution system reflecting maximum residence time of the water in the system. The system shall submit, to the commissioner, the results of at least one (1) sample analyzed for maximum TTHM potential using the procedure specified in subsection (g). A sample must be analyzed from each treatment plant used by the system and be taken at a point in the distribution system reflecting the maximum residence

time of the water in the system. The system's monitoring frequency may only be reduced upon a written determination by the commissioner that, based upon the data submitted by the system, the system has a maximum TTHM potential of less than ten-hundredths (0.10) milligram per liter and that, based upon an assessment of the local condition of the system, the system is not likely to approach or exceed the MCL for total TTHMs. The results of all analyses shall be reported to the commissioner within thirty (30) days of the system's receipt of such results. All samples collected shall be used for determining whether the system must comply with the monitoring requirements of subsection (a) unless the analytical results are invalidated for technical reasons. Sampling and analyses shall be conducted in accordance with the methods listed in subsection (e).

(2) If, at any time during which the reduced monitoring frequency prescribed under subdivision (1) applies, the results from any analysis taken by the system for maximum TTHM potential are equal to or greater than ten-hundredths (0.10) milligram per liter, and such results are confirmed by at least one (1) check sample taken promptly after such results are received, the system shall immediately begin monitoring in accordance with the requirements of subsection (b) and such monitoring shall continue for at least one (1) year before the frequency may be reduced again. In the event of any significant change to the system's source of water or treatment program, the system shall immediately analyze an additional sample for maximum TTHM potential taken at a point in the distribution system reflecting maximum residence time of the water in the system for the purpose of determining whether the system must comply with monitoring requirements of subsection (b). At the discretion of the commissioner, monitoring frequencies may and should be increased above the minimum in those cases where this is necessary to detect variation of TTHM levels within the distribution system.

(d) Compliance with section 5 of this rule for TTHM shall be determined based on a running annual average of quarterly samples collected by the system as prescribed in subsection (b)(1) or (b)(2). If the average of samples covering any four (4) consecutive quarterly periods exceeds the MCL, the supplier of water shall report to the commissioner under section 13 of this rule and notify the public under 327 IAC 8-2.1-7 through 327 IAC 8-2.1-16. Monitoring after public notification shall be at a frequency designated by the commissioner and shall continue until a monitoring schedule as a condition to an enforcement action shall become effective.

(e) Samples for TTHM shall be dechlorinated upon

collection to prevent further production of trihalomethanes according to the procedures described in the methods, except acidification is not required if only TTHMs or THMs are to be determined. Samples for maximum TTHM potential should not be dechlorinated and should be held for seven (7) days at twenty-five (25) degrees Celsius or above prior to analysis. Analyses made under this section shall be conducted by one (1) of the following U.S. EPA approved methods:

- (1) Method 502.2, Rev 2.1\*.
- (2) Method 524.2\*.
- (3) Method 551.1\*.

(f) Before a community water system makes any significant modifications to its existing treatment process for the purpose of achieving compliance with the MCL established in section 5(a) of this rule, such system must submit and obtain the commissioner's approval of a detailed plan setting forth its proposed modification and those safeguards that it will implement to ensure that the bacteriological quality of the drinking water served by such system will not be adversely affected by such modification. Each system shall comply with the provisions set forth in the approved plan. At a minimum, a plan approved by the commissioner shall require the system modifying its disinfection practice to do the following:

- (1) Evaluate the water system for sanitary defects and evaluate the source water for biological quality.
- (2) Evaluate its existing treatment practices and consider improvements that will minimize disinfectant demand and optimize finished water quality throughout the distribution system.
- (3) Provide baseline water quality survey data of the distribution system. Such data should include the results from monitoring for coliform and fecal coliform bacterial, fecal streptococci, standard plate counts at thirty-five (35) degrees Celsius and twenty (20) degrees Celsius, phosphate, ammonia nitrogen, and total organic carbon. Virus studies should be required where source waters are heavily contaminated with sewage effluent.
- (4) Conduct additional monitoring to assure continued maintenance of optimal biological quality in finished water, for example, when chloramines are introduced as disinfectants or when prechlorination is being discontinued. Additional monitoring may also be required by the commissioner for chlorate, chlorite, and chlorine dioxide when chlorine dioxide is used. Standard plate count analysis may also be required by the commissioner as appropriate before and after any modifications.
- (5) Consider inclusion in the plan provisions to maintain an active disinfectant residual throughout the

distribution system at all times during and after modification.

(g) The water sample for determination of maximum trihalomethane potential is taken from a point in the distribution system that reflects maximum residence time. Procedures for sample collection and handling are given in the methods. No reducing agent is added to quench the chemical reaction producing THMs at the time of sample collection. The intent is to permit the levels of THM precursors to be depleted and the concentration of THMs to be maximized for the supply to be tested. Four (4) experimental parameters affecting maximum THM production are pH, temperature, reaction time, and the presence of a disinfectant residual. These parameters are dealt with as follows:

(1) Measure the disinfectant residual at the selected sampling point. Proceed only if a measurable disinfectant residual is present.

(2) Collect triplicate forty (40) milliliter water samples at the pH prevailing at the time of sampling and prepare a method blank according to the methods.

(3) Seal and store these samples together for seven (7) days at twenty-five (25) degrees Celsius or above.

(4) After this time period, open one (1) of the sample containers and check for disinfectant residual. Absence of a disinfectant residual invalidates the sample for further analysis. Once a disinfectant residual has been demonstrated, open another of the sealed samples and determine total THM concentration using a method specified in subsection (e).

(h) The requirements in subsections (a) through (g) apply to each subpart H CWS that serves a population of ten thousand (10,000) or more individuals until December 31, 2001. The requirements in subsections (a) through (g) apply to each CWS that uses only ground water not under the direct influence of surface water that add a disinfectant (oxidant) in any part of the treatment process and serves a population of ten thousand (10,000) or more individuals until December 31, 2003. After the dates established in this subsection expire, the requirements of 327 IAC 8-2.5 apply to these systems.

\*The methods referenced in this section may be obtained as follows:

(1) Method 502.2, Rev 2.1 may be found in "Methods for the Determination of Organic Compounds in Drinking Water, Supplement III", EPA/600/R-95-131, August 1995, available from NTIS, PB95-261616, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, (800) 553-6847.

(2) Method 551.1 may be found in "Methods for the Determination of Organic Compounds in Drinking Water—Supplement III", EPA/600/R-95-131, August 1995, available from NTIS, PB95-261616, U.S.

Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, (800) 553-6847.

(3) Method 524.2 may be found in "Methods for the Determination of Organic Compounds in Drinking Water—Supplement II", EPA-600/R-92-129, August 1992, available from NTIS, PB92-207703, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, (800) 553-6847.

These methods are available for copying at the Indiana Department of Environmental Management, Office of Water Quality, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-2-5.3; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1011; filed Aug 24, 1994, 8:15 a.m.: 18 IR 37; errata filed Oct 11, 1994, 2:45 p.m.: 18 IR 531; filed Aug 25, 1997, 8:00 a.m.: 21 IR 49; errata filed Dec 10, 1997, 3:45 p.m.: 21 IR 1348; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3958; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1086; filed May 1, 2003, 12:00 p.m.: 26 IR 2814*)

**327 IAC 8-2-5.4 Volatile organic compounds; maximum contaminant levels for community water systems and nontransient noncommunity water systems**

**Authority:** IC 13-1-3-4; IC 13-7-2-15; IC 13-7-7-5; IC 13-7-14-5  
**Affected:** IC 13-7

Sec. 5.4. (a) The following MCLs for volatile organic compounds (VOCs) apply to community water systems and nontransient noncommunity water systems:

<u>CAS No.</u>	<u>Contaminant</u>	<u>Level in Milligrams Per Liter</u>
71-43-2	Benzene	0.005
75-01-4	Vinyl chloride	0.002
56-23-5	Carbon tetrachloride	0.005
107-06-2	1,2-dichloroethane	0.005
79-01-6	Trichloroethylene	0.005
75-35-4	1,1-dichloroethylene	0.007
71-55-6	1,1,1-trichloroethane	0.2
106-46-7	para-dichlorobenzene	0.075
156-59-2	cis-1,2-dichloroethylene	0.07
78-87-5	1,2-dichloropropane	0.005
100-41-4	Ethylbenzene	0.7
108-90-7	Monochlorobenzene	0.1
95-50-1	ortho-dichlorobenzene	0.6
100-42-5	Styrene	0.1
127-18-4	Tetrachloroethylene	0.005
108-88-3	Toluene	1

156-60-5	trans-1,2-dichloroethylene	0.1
1330-20-7	Xylenes (total)	10
75-09-2	Dichloromethane	0.005
120-82-1	1,2,4-trichlorobenzene	0.07
79-00-5	1,1,2-trichloroethane	0.005

(b) BAT for achieving compliance with the MCL for the volatile organic compounds listed in subsection (a) is:

- (1) central treatment using packed tower aeration except toluene;
- (2) central treatment using granular activated carbon for each chemical except vinyl chloride and dichloromethane; or
- (3) other means available for achieving compliance with the maximum contaminant levels identified in subsection (a).

(c) Monitoring frequency and compliance with MCLs for VOCs are determined under section 5.5 of this rule. (*Water Pollution Control Board; 327 IAC 8-2-5.4; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1013; filed Aug 24, 1994, 8:15 a.m.: 18 IR 39*)

**327 IAC 8-2-5.5 Collection of samples for volatile organic compound testing other than total trihalomethanes; community and nontransient noncommunity water systems**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 5.5. (a) Community water systems and nontransient noncommunity water systems shall collect samples for volatile organic compound testing in order to determine compliance with section 5.4 of this rule, beginning with the initial compliance period, as follows:

- (1) Ground water systems shall take a minimum of one (1) sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). Each sample must be taken at the same sampling point, unless conditions make another sampling point more representative of each source or treatment plant, or within the distribution system.
- (2) Surface water systems (or combined surface/ground) shall take a minimum of one (1) sample at points in the distribution system that are representative of each source or at each entry point to the distribution system after treatment (hereafter called a sampling point). Each sample must be taken at the same sampling point, unless conditions make another sampling point more representative of each source or treatment plant, or within the distribution system.

(3) If the system draws water from more than one (1) source and sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions such as when water representative of all sources is being used.

(4) Each community and nontransient noncommunity water system shall take four (4) consecutive quarterly samples for each contaminant listed in section 5.4 of this rule, except vinyl chloride, during each compliance period, beginning in the initial compliance period.

(5) If the initial monitoring for contaminants listed in section 5.4 of this rule, as allowed by subsection (b), has been completed by December 31, 1992, and the system did not detect any contaminant listed in section 5.4 of this rule, then each ground and surface water system shall take one (1) sample annually beginning with the initial compliance period.

(6) After a minimum of three (3) years of annual sampling, the commissioner may allow ground water systems with no previous detection of any contaminant listed in section 5.4 of this rule to take one (1) sample during each compliance period.

(7) Each community and nontransient noncommunity ground water system which does not detect a contaminant listed in section 5.4 of this rule may apply to the commissioner for a waiver from the requirements of subdivisions (5) and (6) after completing the initial monitoring. As used in this section, "detection" means greater than or equal to five ten-thousandths (0.0005) milligram per liter. A waiver shall be effective for no more than six (6) years (two (2) compliance periods). The commissioner may also issue waivers to small systems for the initial round of monitoring for 1,2,4-trichlorobenzene.

(8) The commissioner may grant a waiver after evaluating the following factors:

- (A) Knowledge of previous use (including transport, storage, or disposal) of the contaminant within the watershed or zone of influence of the system. If a determination by the commissioner reveals no previous use of the contaminant within the watershed or zone of influence, a waiver may be granted.
- (B) If previous use of the contaminant is unknown or if the contaminant has been used previously, then the following factors shall be used to determine whether a waiver is granted:
  - (i) Previous analytical results.
  - (ii) The proximity of the system to a potential point or nonpoint source of contamination. Point sources include spills and leaks of chemicals at or near a water treatment facility or at manufacturing, distribution, or storage facilities, or from hazardous and

municipal waste landfills and other waste handling or treatment facilities.

(iii) The environmental persistence and transport of the contaminants.

(iv) The number of persons served by the public water system, and the proximity of a smaller system to a larger system.

(v) How well the water source is protected against contamination, such as whether it is a surface or ground water system. Ground water systems must consider factors such as the depth of the well, the type of soil, and wellhead protection. Surface water systems must consider watershed protection.

(9) As a condition of the waiver, a ground water system must take one (1) sample at each sampling point during the time the waiver is effective, for example, one (1) sample during two (2) compliance periods or six (6) years, and update its vulnerability assessment considering the factors listed in subdivision (8). Based on this vulnerability assessment, the commissioner must reconfirm that the system is nonvulnerable. If the commissioner does not make this reconfirmation within three (3) years of the initial determination, then the waiver is invalidated and the system is required to sample annually as specified in subdivision (5).

(10) Each community and nontransient noncommunity surface water system which does not detect a contaminant listed in section 5.4 of this rule may apply to the commissioner for a waiver from the requirements of subdivision (5) after completing the initial monitoring. Composite samples from a maximum of five (5) sampling points are allowed provided that the detection limit of the method used for analysis is less than one-fifth ( $1/5$ ) of the MCL. Systems meeting this criterion must be determined by the commissioner to be nonvulnerable based on a vulnerability assessment during each compliance period. Each system receiving a waiver shall sample at the frequency specified by the commissioner (if any).

(11) If a contaminant listed in section 5.4 of this rule, except vinyl chloride, is detected at a level exceeding five ten-thousandths (0.0005) milligram per liter in any sample, then the monitoring requirements will be as follows:

(A) The system must monitor quarterly at each sampling point which resulted in a detection.

(B) The commissioner may decrease the quarterly monitoring requirement specified in clause (A) provided it has determined that the system is reliably and consistently below the MCL. In no case shall the commissioner make this determination unless a ground water system takes a minimum of two (2)

quarterly samples and a surface water system takes a minimum of four (4) quarterly samples.

(C) If the commissioner determines that the system is reliably and consistently below the MCL, the commissioner may allow the system to monitor annually. Systems which monitor annually must monitor during the quarter or quarters which previously yielded the highest analytical result.

(D) Systems which have three (3) consecutive annual samples with no detection of a contaminant may apply to the commissioner for a waiver as specified in subdivision (7).

(E) Ground systems which have detected one (1) or more two-carbon organic compounds:

(i) trichloroethylene;

(ii) tetrachloroethylene;

(iii) 1,2-dichloroethane;

(iv) 1,1,1-trichloroethane;

(v) cis-1,2-dichloroethylene;

(vi) trans-1,2-dichloroethylene; or

(vii) 1,1-dichloroethylene;

shall monitor quarterly for vinyl chloride. A vinyl chloride sample shall be taken at each sampling point at which one (1) or more of the two-carbon organic compounds was detected. If the results of the first analysis do not detect vinyl chloride, the commissioner may reduce the quarterly monitoring frequency of vinyl chloride monitoring to one (1) sample during each compliance period. Surface water systems are required to monitor for vinyl chloride as specified by the commissioner.

(12) Systems which violate the requirements of section 5.4 of this rule, as determined by subdivision (15), must monitor quarterly. After a minimum of four (4) consecutive quarterly samples which show the system is in compliance as specified in subdivision (15) if the commissioner determines that the system is reliably and consistently below the MCL, the system may monitor at the frequency and times specified in subdivision (11)(C).

(13) The commissioner may require a confirmation sample for positive or negative results. If a confirmation sample is required by the commissioner, the result must be averaged with the first sampling result and the average is used for the compliance determination as specified by subdivision (15). The commissioner has the discretion to delete results of obvious sampling errors from this calculation.

(14) The commissioner may reduce the total number of samples a system must analyze by allowing the use of compositing. Composite samples from a maximum of five (5) sampling points are allowed, provided that the detection limit of the method used for analysis is less

than one-fifth ( $\frac{1}{5}$ ) of the MCL. Compositing of samples must be done in the laboratory and analyzed within fourteen (14) days of sample collection as follows:

(A) If the concentration in the composite sample is greater than or equal to five ten-thousandths (0.0005) milligram per liter for any contaminant listed in section 5.4 of this rule, then a follow-up sample must be analyzed within fourteen (14) days from each sampling point included in the composite, and be analyzed for that contaminant.

(B) If duplicates of the original sample taken from each sampling point used in the composite sample are available, the system may use the duplicates instead of resampling. The duplicates must be analyzed and the results reported to the commissioner within fourteen (14) days after completing analysis of the composite sample, provided the holding time of the sample is not exceeded.

(C) Compositing may only be permitted by the commissioner at sampling points within a single system if the population served by the system is greater than three thousand three hundred (3,300) persons. In systems serving less than or equal to three thousand three hundred (3,300) persons, the commissioner may permit compositing among different systems provided the five (5) sample limit is maintained.

(D) Compositing of samples prior to gas chromatography (GC) analysis shall be as follows:

(i) Add five (5) milliliters or equal larger amounts of each sample (up to five (5) samples are allowed) to a twenty-five (25) milliliter glass syringe. Special precautions must be made to maintain zero (0) headspace in the syringe.

(ii) The samples must be cooled at four (4) degrees Celsius during this step to minimize volatilization losses.

(iii) Mix well and draw out a five (5) milliliter aliquot for analysis.

(iv) Follow sample introduction, purging, and desorption steps described in the method.

(v) If less than five (5) samples are used for compositing, a proportionately smaller syringe may be used.

(E) Compositing of samples prior to gas chromatography/mass spectrometry (GS/MS) analysis shall be as follows:

(i) Inject five (5) milliliters or larger amounts of each aqueous solution (up to five (5) samples are allowed) into a twenty-five (25) milliliter purging device using the sample introduction technique described in the method.

(ii) The total volume of the sample in the purging device must be twenty-five (25) milliliters.

(iii) Purge and desorb as described in the method.

(15) Compliance with section 5.4 of this rule shall be determined based on the analytical results obtained at each sampling point using the following criteria:

(A) For systems which are conducting monitoring at a frequency greater than annually, compliance is determined by a running annual average of all samples taken at each sampling point. If the annual average of any sampling point is greater than the MCL, then the system is out of compliance. If the initial sample or a subsequent sample would cause the annual average to be exceeded, then the system is out of compliance immediately.

(B) If monitoring is conducted annually, or less frequently, the system is out of compliance if the level of a contaminant at any sampling point is greater than the MCL. If a confirmation sample is required by the commissioner, the determination of compliance will be based on the average of two (2) samples.

(C) If a public water system has a distribution system separable from other parts of the distribution system with no interconnections, the commissioner may allow the system to give public notice to only that area served by that portion of the system which is out of compliance.

(b) The commissioner may allow the use of monitoring data collected after January 1, 1988, for purposes of initial monitoring compliance. If the data are generally consistent with the other requirements of this section, the commissioner may use these data (a single sample rather than four (4) quarterly samples) to satisfy the initial monitoring requirement of subsection (a)(4). Systems which use grandfathered samples and do not detect any contaminant listed in section 5.4 of this rule, except vinyl chloride, shall begin monitoring annually in accordance with subsection (a)(5), beginning with the initial compliance period.

(c) The commissioner may increase required monitoring where necessary to detect variations within the system.

(d) To receive certification to conduct analyses for the contaminants in section 5.4 of this rule, excluding vinyl chloride, each certified laboratory must meet the following requirements:

(1) Successfully analyze performance evaluation (PE) samples provided by EPA, the commissioner, or by a third party with the approval of EPA or the commissioner, at least once a year by each method for which the laboratory desires certification.

(2) Achieve the quantitative acceptance limits under

subdivisions (3) and (4) for at least eighty percent (80%) of the regulated organic chemicals in section 5.4 of this rule, excluding vinyl chloride.

(3) Achieve quantitative results on the analyses performed under subdivision (1) that are within plus or minus twenty percent ( $\pm 20\%$ ) of the actual amount of the substances in the PE sample when the actual amount is greater than or equal to ten-thousandths milligrams per liter ( $\geq 0.010$  mg/l).

(4) Achieve quantitative results on the analyses performed under subdivision (1) that are within plus or minus forty percent ( $\pm 40\%$ ) of the actual amount of the substances in the PE sample when the actual amount is less than ten-thousandths milligrams per liter ( $< 0.010$  mg/l).

(5) Achieve a method detection limit of five ten-thousandths milligram per liter (0.0005 mg/l), according to the procedures in 40 CFR 136, Appendix B\*.

(e) To receive certification to conduct analyses for vinyl chloride, the laboratory must meet the following requirements:

(1) Successfully analyze PE samples provided by EPA, the commissioner, or by a third party with the approval of EPA or the commissioner, at least once a year by each method for which the laboratory desires certification.

(2) Achieve quantitative results on the analyses performed under subdivision (1) that are within plus or minus forty percent ( $\pm 40\%$ ) of the actual amount of vinyl chloride in the PE sample.

(3) Achieve a method detection limit of five ten-thousandths milligram per liter (0.0005 mg/l), according to the procedures in 40 CFR 136, Appendix B\*.

(4) Obtain certification for the contaminants listed in section 5.4 of this rule.

(f) Each public water system shall monitor at the time designated by the commissioner within each compliance period.

(g) The commissioner may increase required monitoring where necessary to detect variations within the system.

(h) The commissioner has the authority to determine compliance or initiate enforcement based upon analytical results or other information.

\*40 CFR 136, Appendix B\* is incorporated by reference. Copies of this regulation may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402, or from the Indiana Department of Environmental Management, Office of Water Quality, Indiana Government Center-North, 100 North Senate Avenue, Room N1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-2-5.5; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1014;*

*errata filed Jan 9, 1991, 2:30 p.m.: 14 IR 1070; errata filed Aug 6, 1991, 3:45 p.m.: 14 IR 2258; filed Aug 24, 1994, 8:15 a.m.: 18 IR 39; errata filed Oct 11, 1994, 2:45 p.m.: 18 IR 531; filed Oct 24, 1997, 4:30 p.m.: 21 IR 936; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3960; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1089)*

### **327 IAC 8-2-5.6 Analytical methods for volatile organic compounds**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 5.6. (a) Analysis for the contaminants listed in section 5.5 of this rule shall be conducted using the following U.S. EPA methods or their equivalent as approved by EPA:

(1) Benzene, as described in Method 502.2, Rev 2.1\* or Method 524.2, Rev 4.1\*.

(2) Carbon tetrachloride, as described in Method 502.2, Rev 2.1\*, Method 524.2, Rev 4.1\*, or Method 551.1, Rev 1.0\*.

(3) Chlorobenzene, as described in Method 502.2, Rev 2.1\* or Method 524.2, Rev 4.1\*.

(4) 1,2-dichlorobenzene, as described in Method 502.2, Rev 2.1\* or Method 524.2, Rev 4.1\*.

(5) 1,4-dichlorobenzene, as described in Method 502.2, Rev 2.1\* or Method 524.2, Rev 4.1\*.

(6) 1,2-dichloroethane, as described in Method 502.2, Rev 2.1\* or Method 524.2, Rev 4.1\*.

(7) cis-dichloroethylene, as described in Method 502.2, Rev 2.1\* or Method 524.2, Rev 4.1\*.

(8) trans-dichloroethylene, as described in Method 502.2, Rev 2.1\* or Method 524.2, Rev 4.1\*.

(9) Dichloromethane, as described in Method 502.2, Rev 2.1\* or Method 524.2, Rev 4.1\*.

(10) 1,2-dichloropropane, as described in Method 502.2, Rev 2.1\* or Method 524.2, Rev 4.1\*.

(11) Ethylbenzene, as described in Method 502.2, Rev 2.1\* or Method 524.2, Rev 4.1\*.

(12) Styrene, as described in Method 502.2, Rev 2.1\* or Method 524.2, Rev 4.1\*.

(13) Tetrachloroethylene, as described in Method 502.2, Rev 2.1\*, Method 524.2, Rev 4.1\*, or Method 551.1, Rev 1.0\*.

(14) 1,1,1-trichloroethane, as described in Method 502.2, Rev 2.1\*, Method 524.2, Rev 4.1\*, or Method 551.1, Rev 1.0\*.

(15) Trichloroethylene, as described in Method 502.2, Rev 2.1\*, Method 524.2, Rev 4.1\*, or Method 551.1, Rev 1.0\*.

(16) Toluene, as described in Method 502.2, Rev 2.1\* or Method 524.2, Rev 4.1\*.

(17) 1,2,4-trichlorobenzene, as described in Method 502.2, Rev 2.1\* or Method 524.2, Rev 4.1\*.

(18) 1,1-dichloroethylene, as described in Method 502.2, Rev 2.1\* or Method 524.2, Rev 4.1\*.

(19) 1,1,2-trichloroethane, as described in Method 502.2, Rev 2.1\*, Method 524.2, Rev 4.1\*, or Method 551.1, Rev 1.0\*.

(20) Vinyl chloride, as described in Method 502.2, Rev 2.1\* or Method 524.2, Rev 4.1\*.

(21) Xylenes (total), as described in Method 502.2, Rev 2.1\* or Method 524.2, Rev 4.1\*.

(b) Analysis under this section shall only be conducted by laboratories that are certified by the commissioner or EPA under 40 CFR 141.28\*.

(c) The following procedure shall be followed to composite samples prior to analysis:

(1) Compositing of samples prior to gas chromatography (GC) analysis shall be as follows:

(A) Add five (5) milliliters or equal larger amounts of each sample (up to five (5) samples are allowed) to a twenty-five (25) milliliter glass syringe. Special precautions must be made to maintain zero (0) headspace in the syringe.

(B) The samples must be cooled at four (4) degrees Celsius during this step to minimize volatilization losses.

(C) Mix well and draw out a five (5) milliliter aliquot for analysis.

(D) Follow sample introduction, purging, and desorption steps described in the method.

(E) If less than five (5) samples are used for compositing, a proportionately smaller syringe may be used.

(2) Compositing of samples prior to gas chromatography/mass spectrometry (GC/MS) analysis shall be as follows:

(A) Inject five (5) milliliters or equal larger amounts of each aqueous sample (up to five (5) samples are allowed) into a twenty-five (25) milliliter purging device using the sample introduction technique described in the method.

(B) The total volume of the sample in the purging device must be twenty-five (25) milliliters.

(C) Purge and desorb as described in the method.

\*Methods referenced in this section may be obtained as follows:

(1) Method 551 may be found in "Methods for the Determination of Organic Compounds in Drinking Water—Supplement I", July 1990, EPA-600-4-90-020, available from NTIS, PB91-146027, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, (800) 553-6847.

(2) Methods 502.2, Rev 2.1, 524.2, Rev 4.1, and 551.1,

Rev 1.0 may be found in "Methods for the Determination of Organic Compounds in Drinking Water - Supplement III", EPA/600/R-95-131, August 1995, available from NTIS, PB95-261616, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, (800) 553-6847.

(3) 40 CFR 141.28 may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

These methods are available for copying at the Indiana Department of Environmental Management, Office of Water Quality, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-2-5.6; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1015; errata filed Aug 6, 1991, 3:45 p.m.: 14 IR 2258; filed Aug 24, 1994, 8:15 a.m.: 18 IR 44; errata filed Oct 11, 1994, 2:45 p.m.: 18 IR 531; filed Oct 24, 1997, 4:30 p.m.: 21 IR 939; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3963*)

**327 IAC 8-2-6 Turbidity; maximum contaminant level (effective until June 28, 1993) (Repealed)**

*Sec. 6. (Repealed by Water Pollution Control Board; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3985)*

**327 IAC 8-2-6.1 Collection of samples for turbidity testing (effective until June 28, 1993) (Repealed)**

*Sec. 6.1. (Repealed by Water Pollution Control Board; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3985)*

**327 IAC 8-2-7 Microbiological contaminants; maximum contaminant levels for all public water systems**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-11-2; IC 13-14-8; IC 13-18-1; IC 13-18-2

Sec. 7. (a) The microbiological MCL applies to all public water systems and is based on the presence or absence of total coliforms in a sample, rather than coliform density. For a system:

(1) which collects at least forty (40) samples per month, if no more than five percent (5%) of the samples collected during a month are total coliform-positive, the system is in compliance with the MCL for total coliforms; or

(2) which collects fewer than forty (40) samples per month, if no more than one (1) sample collected during a month is total coliform-positive, the system is in

compliance with the MCL for total coliforms.

(b) Any fecal coliform-positive repeat sample or E. coli-positive repeat sample, or any total coliform-positive repeat sample following a fecal coliform-positive or E. coli-positive routine sample, constitutes a violation of the MCL for total coliforms. For purposes of the public notification requirements in 327 IAC 8-2.1-7 through 327 IAC 8-2.1-16, this is a violation that may pose an acute risk to health.

(c) A public water system must determine compliance with the MCL for total coliforms in subsections (a) and (b) for each month in which it is required to monitor for total coliforms.

(d) The following are BAT for achieving compliance with the MCL for total coliforms in subsections (a) and (b):

(1) Protection of wells from coliform contamination by appropriate placement and construction.

(2) Maintenance of a disinfectant residual throughout the distribution system.

(3) Proper maintenance of the distribution system, including appropriate pipe replacement and repair procedures, main flushing programs, proper operation and maintenance of storage tanks and reservoirs, and continual maintenance of positive water pressure in all parts of the distribution system.

(4) Filtration and/or disinfection of surface water, as described in sections 8.5 and 8.6 of this rule, or disinfection of ground water using strong oxidants such as chlorine, chlorine dioxide, or ozone.

(5) For systems using ground water compliance with the requirements of an EPA approved wellhead protection program developed and implemented under Section 1428 of the Safe Drinking Water Act.

*(Water Pollution Control Board; 327 IAC 8-2-7; filed Sep 24, 1987, 3:00 p.m.: 11 IR 707; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1018; filed Apr 12, 1993, 11:00 a.m.: 16 IR 2154; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1092)*

### **327 IAC 8-2-8 Collection of samples for total coliform bacteria testing**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 8. (a) Public water systems must collect total coliform samples at sites which are representative of water throughout the distribution system according to a written sample siting plan approved by the commissioner.

(b) The monitoring frequency for total coliforms for community water systems is based on the population served by the system and shall be as follows unless the commissioner determines that more frequent sampling is appropriate:

### **TOTAL COLIFORM MONITORING FREQUENCY FOR COMMUNITY WATER SYSTEMS**

<u>Population Served</u>		<u>Minimum Number of Samples Per Month</u>
25	to 1,000 <sup>1</sup>	1
1,001	to 2,500	2
2,501	to 3,300	3
3,301	to 4,100	4
4,101	to 4,900	5
4,901	to 5,800	6
5,801	to 6,700	7
6,701	to 7,600	8
7,601	to 8,500	9
8,501	to 12,900	10
12,901	to 17,200	15
17,201	to 21,500	20
21,501	to 25,000	25
25,001	to 33,000	30
33,001	to 41,000	40
41,001	to 50,000	50
50,001	to 59,000	60
59,001	to 70,000	70
70,001	to 83,000	80
83,001	to 96,000	90
96,001	to 130,000	100
130,001	to 220,000	120
220,001	to 320,000	150
320,001	to 450,000	180
450,001	to 600,000	210
600,001	to 780,000	240
780,001	to 970,000	270
970,001	to 1,230,000	300
1,230,001	to 1,520,000	330

<sup>1</sup>Includes public water systems that have at least fifteen (15) service connections but serve fewer than twenty-five (25) persons.

If a community water system serving twenty-five (25) to one thousand (1,000) persons has no history of total coliform contamination in its current configuration and a sanitary survey conducted in the past five (5) years shows that the system is supplied solely by a protected ground water source and is free of sanitary defects, the commissioner may reduce the monitoring frequency specified in this subsection, in writing, except that in no case may the commissioner reduce the monitoring frequency to less than one (1) sample per quarter.

(c) The monitoring frequency for total coliforms for noncommunity water systems is as follows:

(1) A noncommunity water system using only ground water (except ground water under the direct influence of surface water, as defined in section 1(29) of this

rule) and serving one thousand (1,000) or fewer persons must monitor each calendar quarter that the system provides water to the public, except that the commissioner may reduce this monitoring frequency, in writing, if a sanitary survey shows that the system is free of sanitary defects. Beginning June 29, 1994, the commissioner shall not reduce the monitoring frequency for a noncommunity water system using only ground water (except ground water under the direct influence of surface water, as defined in section 1(29) of this rule) and serving one thousand (1,000) or fewer persons to less than once per year.

(2) A noncommunity water system using only ground water (except ground water under the direct influence of surface water, as defined in section 1(29) of this rule) and serving more than one thousand (1,000) persons during any month must monitor at the same frequency as a like-sized community water system, as specified in subsection (b), except the commissioner may reduce this monitoring frequency, in writing, for any month the system serves one thousand (1,000) or fewer persons. The commissioner shall not reduce the monitoring frequency to less than once per year. For systems using ground water under the direct influence of surface water, subdivision (4) applies.

(3) A noncommunity water system using surface water, in total or in part, must monitor at the same frequency as a like-sized community water system, as specified in subsection (b), regardless of the number of persons it serves.

(4) A noncommunity water system using ground water under the direct influence of surface water, as defined in section 1(29) of this rule, must monitor at the same frequency as a like-sized community water system specified in subsection (b). The system must begin monitoring at this frequency beginning six (6) months after the commissioner determines that the ground water is under the direct influence of surface water.

(d) The public water system must collect samples at regular time intervals throughout the month, except that a system which uses only ground water (except ground water under the direct influence of surface water, as defined in section 1(29) of this rule) and serves four thousand nine hundred (4,900) persons or fewer, may collect all required samples on a single day if they are taken from different sites.

(e) Special purpose samples, such as those taken to determine whether disinfection practices are sufficient following pipe placement, replacement, or repair, shall not be used to determine compliance with the MCL for total coliforms in section 7 of this rule. Repeat samples taken under section 8.1 of this rule are not considered special purpose samples and must be used to determine

compliance with the MCL for total coliforms required by section 7 of this rule. Any sample not designated as special purpose prior to analysis by the laboratory shall be used to determine compliance with the MCL for total coliforms in section 7 of this rule.

(f) A total coliform-positive sample invalidated under this subsection does not count towards meeting the minimum monitoring requirements of this section. The total coliform-positive sample may be invalidated only if the following conditions are met:

(1) The laboratory establishes that improper sample analysis caused the total coliform-positive result.

(2) The commissioner, on the basis of the results of repeat samples collected as required by section 8.1(a) through 8.1(d) of this rule, determines that the total coliform-positive sample resulted from a domestic or other nondistribution system plumbing problem. The commissioner cannot invalidate a sample on the basis of repeat sample results unless all repeat samples collected at the same tap as the original total coliform-positive sample are also total coliform-positive, and all repeat samples collected within five (5) service connections of the original tap are total coliform-negative, for example, the commissioner cannot invalidate a total coliform-positive sample on the basis of repeat samples if all the repeat samples are total coliform-negative or if the public water system has only one (1) service connection.

(3) The commissioner has substantial grounds to believe that a total coliform-positive result is due to a circumstance or condition which does not reflect water quality in the distribution system. In this case, the system must still collect all repeat samples required by section 8.1(a) through 8.1(d) of this rule and use them to determine compliance with the MCL for total coliforms in section 7 of this rule. To invalidate a total coliform-positive sample under this subsection, the decision must be documented, in writing, and approved and signed by the supervisor of the state official who recommended the decision. The commissioner must make this document available to EPA and the public. The written documentation must state the specific cause of the total coliform-positive sample and what action the system has taken, or will take, to correct this problem. The commissioner may not invalidate a total coliform-positive sample solely on the grounds that all repeat samples are total coliform-negative.

(4) A laboratory must invalidate a total coliform sample, unless total coliforms are detected, if the sample produces a turbid culture in the absence of gas production using an analytical method where gas formation is examined, for example, the multiple-tube fermentation technique, produces a turbid culture in

the absence of an acid reaction in the presence-absence (P-A) coliform test, or exhibits confluent growth or produces colonies too numerous to count with an analytical method using a membrane filter, for example, the membrane filter technique. If a laboratory invalidates a sample because of such interference, the system must collect another sample from the same location as the original sample within twenty-four (24) hours of being notified of the interference problem and have it analyzed for the presence of total coliforms. The system must continue to resample within twenty-four (24) hours and have the samples analyzed until it obtains a valid result. The commissioner may waive the twenty-four (24) hour time limit on a case-by-case basis.

*(Water Pollution Control Board; 327 IAC 8-2-8; filed Sep 24, 1987, 3:00 p.m.: 11 IR 707; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1019; errata filed Jan 9, 1991, 2:30 p.m.: 14 IR 1070; errata filed Aug 6, 1991, 3:45 p.m.: 14 IR 2258; filed Apr 12, 1993, 11:00 a.m.: 16 IR 2155; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3965)*

### **327 IAC 8-2-8.1 Repeat monitoring for total coliform bacteria**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 8.1. (a) If a routine sample is total coliform-positive, the public water system must collect a set of repeat samples within twenty-four (24) hours of being notified by the laboratory or the commissioner of the positive result. A system which collects more than one (1) routine sample per month must collect no fewer than three (3) repeat samples for each total coliform-positive sample found. A system which collects one (1) routine sample per month or fewer must collect no fewer than four (4) repeat samples for each total coliform-positive sample found. The commissioner may extend the twenty-four (24) hour limit up to forty-eight (48) hours on a case-by-case basis if the system has a problem beyond its control in collecting the repeat samples within twenty-four (24) hours. The system must have sufficient sample bottles on hand to collect any required repeat samples within twenty-four (24) hours of notification by the laboratory or the commissioner, or must have the ability to acquire sample bottles and collect samples within twenty-four (24) hours of notification by the laboratory or the commissioner or a positive total coliform sample.

(b) The system must collect at least one (1) repeat sample from the sampling tap where the original total coliform-positive sample was taken, at least one (1) repeat sample at a tap within five (5) service connections

upstream, and at least one (1) repeat sample at a tap within five (5) service connections downstream of the original sampling site. If a total coliform-positive sample is at the end of the distribution system, or one (1) away from the end of the distribution system, the commissioner may waive the requirement to collect at least one (1) repeat sample upstream or downstream of the original sampling site.

(c) The system must collect all repeat samples on the same day, except that the commissioner may allow a system with a single service connection to collect the required set of repeat samples over a four (4) day period or to collect a larger volume of repeat samples in one (1) or more sample containers of any size, as long as the total volume collected is at least four hundred (400) milliliters or three hundred (300) milliliters for systems which collect more than one (1) routine sample per month.

(d) If one (1) or more repeat samples in the set is total coliform-positive, the public water system must collect an additional set of repeat samples in the manner specified in subsections (a) through (c). The additional samples must be collected within twenty-four (24) hours of being notified of the positive result, unless the commissioner extends the limit as provided in subsection (a). The system must repeat this process until either total coliforms are not detected in one (1) complete set of repeat samples or the system determines that the MCL for total coliforms in section 7 of this rule has been exceeded and notifies the commissioner.

(e) If a system collecting fewer than five (5) routine samples per month has one (1) or more total coliform-positive samples, and the commissioner does not invalidate the samples under section 8(f) of this rule, it must collect at least five (5) routine samples during the next month the system provides water to the public, except that the commissioner may waive this requirement if the following conditions are met:

(1) The commissioner may waive the requirement to collect five (5) routine samples the next month the system provides water to the public if the commissioner, or an agent approved by the commissioner, performs a site visit before the end of the next month the system provides water to the public. Although a sanitary survey need not be performed, the site visit must be sufficiently detailed to allow the commissioner to determine whether additional monitoring or any corrective action or both is needed. An employee of the system shall not be approved to perform this site visit.

(2) The commissioner may waive the requirement to collect five (5) routine samples the next month the system provides water to the public if the commissioner has determined why the sample was total

coliform-positive and establishes that the system has corrected the problem or will correct the problem before the end of the next month the system serves water to the public. In this case, the decision to waive the following month's additional monitoring requirement must be documented in writing, approved, and signed by the supervisor of the state official who recommends such a decision and made available to the EPA and public. The written documentation must describe the specific cause of the total coliform-positive sample and what action the system has taken or will take to correct this problem. The requirement to collect five (5) routine samples the next month the system provides water to the public cannot be waived solely on the grounds that all repeat samples are total coliform-negative. Under this subdivision, a system must still take at least one (1) routine sample before the end of the next month it serves water to the public and use it to determine compliance with the MCL for total coliforms in section 7 of this rule, unless the commissioner has determined that the system has corrected the contamination problem before the system took the set of repeat samples required in subsections (a) through (d) and all repeat samples were total coliform-negative. The commissioner shall not waive the requirement for a system to collect repeat samples in subsections (a) through (d).

(f) After a system collects a routine sample and before it learns the results of the analysis of that sample, if it collects another routine sample from within five (5) adjacent service connections of the initial sample, and the initial sample, after analysis, is found to contain total coliforms, then the system may count the subsequent samples as a repeat sample instead of as a routine sample.

(g) Results of all routine and repeat samples not invalidated by the commissioner must be included in determining compliance with the MCL for total coliforms in section 7 of this rule. Any sample not designated as special purpose prior to analysis by the laboratory shall be used to determine compliance with the MCL for total coliforms in section 7 of this rule. (*Water Pollution Control Board; 327 IAC 8-2-8.1; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1021; errata filed Jan 9, 1991, 2:30 p.m.: 14 IR 1070; errata filed Aug 6, 1991, 3:45 p.m.: 14 IR 2258; filed Apr 12, 1993, 11:00 a.m.: 16 IR 2157; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3966*)

### **327 IAC 8-2-8.2 Sanitary surveys**

**Authority:** IC 13-1-3-4; IC 13-7-2-15; IC 13-7-7-5; IC 13-7-14-5  
**Affected:** IC 13-7

Sec. 8.2. (a) Public water systems which do not collect five (5) or more routine samples per month must undergo

an initial sanitary survey by June 29, 1994, for community public water systems and June 29, 1999, for noncommunity water systems. Thereafter, systems must undergo another sanitary survey every five (5) years or more frequently, as determined by the commissioner, except that noncommunity water systems using only protected and disinfected ground water, as determined by the commissioner, must undergo subsequent sanitary surveys at least every ten (10) years after the initial sanitary survey. The commissioner must review the results of each sanitary survey to determine whether the existing monitoring frequency is adequate and what measures the system needs to undertake to improve drinking water quality.

(b) In conducting a sanitary survey of a system using ground water after EPA approves a wellhead protection program under Section 1428 of the Safe Drinking Water Act, information on sources of contamination within the delineated wellhead protection area that was collected in the course of developing and implementing the program should be considered instead of collecting new information if the information was collected since the last time the system was subject to a sanitary survey.

(c) Sanitary surveys must be performed by the commissioner or an agent approved by the commissioner. The public water system must ensure that the sanitary survey takes place. (*Water Pollution Control Board; 327 IAC 8-2-8.2; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1022; filed Apr 12, 1993, 11:00 a.m.: 16 IR 2158*)

### **327 IAC 8-2-8.3 Collection of samples for fecal coliforms or Escherichia coli (E. coli) testing**

**Authority:** IC 13-1-3-4; IC 13-7-2-15; IC 13-7-7-5; IC 13-7-14-5  
**Affected:** IC 13-7

Sec. 8.3. (a) If any routine or repeat sample is total coliform-positive, the public water supply system must analyze that total coliform-positive culture medium to determine if fecal coliforms are present, except that the system may test for E. coli in lieu of fecal coliforms. If fecal coliforms or E. coli are present, the public water supply system must notify the commissioner by the end of the same business day that the system is notified of the test results. If the system is notified of the result after the close of business, the system shall notify the commissioner before the end of the next business day.

(b) The commissioner has the discretion to allow a public water system, on a case-by-case basis, to forego fecal coliform or E. coli testing on a total coliform-positive sample if that system assumes that the total coliform-positive sample is fecal coliform-positive or E. coli-positive. Accordingly, the system must notify the

commissioner as specified in subsection (a), and the provisions of section 7(b) of this rule apply. (*Water Pollution Control Board; 327 IAC 8-2-8.3; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1022; filed Apr 12, 1993, 11:00 a.m.: 16 IR 2158*)

### **327 IAC 8-2-8.4 Analytical methods for microbiological contaminants**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-11-2; IC 13-14-8; IC 13-18-1; IC 13-18-2

Sec. 8.4. (a) A public water system shall analyze for microbiological contaminants as follows:

(1) The standard sample volume required for total coliform analysis, regardless of analytical method used, is one hundred (100) milliliters.

(2) Public water systems need only determine the presence or absence of total coliforms, and a determination of total coliform density is not required.

(3) Public water systems must conduct total coliform analyses in accordance with one (1) of the following analytical methods:

(A) Total coliform fermentation technique<sup>1,2,3</sup> as set forth in Method 9221A\* and Method 9221B\*.

(B) Total coliform membrane filter technique<sup>4</sup> as set forth in Method 9222A\*, Method 9222B\*, and Method 9222C\*.

(C) Presence-absence (P-A) coliform test<sup>3,5</sup> as set forth in Method 9221D\*.

(D) ONPG-MUG test<sup>6</sup> as set forth in Method 9223\*.

(E) Colisure test<sup>7</sup>.

(F) E\*Colite<sup>®</sup> test\*.

(G) m-ColiBlue24<sup>®</sup> test\*.

(4) Public water systems must conduct fecal coliform analysis in accordance with the procedure in this subdivision. When the MTF technique or presence-absence (P-A) coliform test is used to test for total coliforms, shake the lactose-positive presumptive tube or P-A bottle vigorously and transfer the growth with a sterile three (3) millimeter loop or sterile applicator stick into brilliant green lactose bile broth and EC medium to determine the presence of total and fecal coliforms, respectively. For EPA-approved analytical methods which use a membrane filter, transfer the total coliform-positive culture by one (1) of the following methods:

(A) Remove the membrane containing the total coliform colonies from the substrate with a sterile forceps and carefully curl and insert the membrane into a tube of EC medium. (The laboratory may first remove a small portion of selected colonies for verification.)

(B) Alternately, the laboratory may swab the entire membrane filter surface with a sterile cotton swab and transfer the inoculum to EC medium (do not leave the cotton swab in the EC medium), or inoculate individual total coliform-positive colonies into EC medium.

Gently shake the inoculated EC tubes to ensure adequate mixing and incubate in a water bath at forty-four and one-half (44.5) degrees Celsius, plus or minus two-tenths (0.2) degrees Celsius, for twenty-four (24) hours, plus or minus two (2) hours. Gas production of any amount in the inner fermentation tube of the EC medium indicates a positive fecal coliform test. The preparation of EC medium is described in Method 9221E, paragraph 1(a)\*. Public water systems need only determine the presence or absence of fecal coliforms; a determination of fecal coliform density is not required.

(5) Public water systems must conduct analysis of *Escherichia coli* in accordance with one (1) of the following analytical methods:

(A) EC medium supplemented with fifty (50) micrograms per milliliter of 4-methylumbelliferyl-beta-D-glucuronide (MUG) (final concentration). EC medium is described in Method 9221E, paragraph 1(a)\*. MUG may be added to EC medium before autoclaving. EC medium supplemented with fifty (50) micrograms per milliliter of MUG is commercially available. At least ten (10) milliliters of EC medium supplemented with MUG must be used. The inner inverted fermentation tube may be omitted. The procedure for transferring a total coliform-positive culture to EC medium supplemented with MUG shall be as specified in subdivision (4) for transferring a total coliform-positive culture to EC medium. Observe fluorescence with an ultraviolet light three hundred sixty-six (366) nanometers (preferably with a six (6) watt lamp) in the dark after incubating tube at forty-four and one-half (44.5) degrees Celsius, plus or minus two-tenths (0.2) degrees Celsius for twenty-four (24) hours, plus or minus two (2) hours.

(B) Nutrient agar supplemented with one hundred (100) micrograms per milliliter of MUG (final concentration). Nutrient agar is described in Method 9221E\*. This test is used to determine if a total coliform-positive sample, as determined by the membrane filter technique or any other method in which a membrane filter is used contains *E. coli*. Transfer the membrane filter containing a total coliform colony(ies) to nutrient agar supplemented with one hundred (100) micrograms per milliliter (final concentration) of MUG. After incubating the

agar plate at thirty-five (35) degrees Celsius for four (4) hours, observe the colony(ies) under ultraviolet light three hundred sixty-six (366) nanometers (preferably with a six (6) watt lamp) in the dark for fluorescence. If fluorescence is visible, *E. coli* are present.

(C) Minimal medium ONPG-MUG (MMO-MUG) test as described in the article “National Field Evaluation of a Defined Substrate Methods for the Simultaneous Detection of Total Coliforms and *Escherichia coli* from Drinking Water: Comparison with Presence-Absence Techniques\*<sup>1</sup>”. If the MMO-MUG test is total coliform-positive after a twenty-four (24) hour incubation, test the medium for fluorescence with a three hundred sixty-six (366) nanometer ultraviolet light (preferably with a six (6) watt lamp) in the dark. If fluorescence is observed, the sample is *E. coli*-positive. If fluorescence is questionable (cannot be definitively read) after twenty-four (24) hours incubation, incubate the culture for an additional four (4) hours, but not to exceed twenty-eight (28) hours total, and again test the medium for fluorescence. The MMO-MUG test with hepes buffer in lieu of phosphate buffer is the only approved formulation for the detection of *E. coli*.

(D) The Colisure test\*.

(E) The Membrane Filter Method with MI agar\*.

(F) E\*Colite<sup>®</sup> test\*.

(G) m-ColiBlue24<sup>®</sup> test\*.

(6) As an option to subdivision (5)(C), a system with a total coliform-positive, MUG-negative, MMO-MUG test may further analyze the culture for the presence of *E. coli* by transferring a one-tenth (0.1) milliliter, twenty-eight (28) hour MMO-MUG culture to EC medium plus MUG with a pipet. The formulation and incubation conditions of EC medium plus MUG and observation of the results are described in subdivision (5)(A).

(b) Response to a violation shall be as follows:

(1) A public water system which has exceeded the MCL for total coliforms in section 7 of this rule must report the violation to the commissioner no later than the end of the next business day after it learns of the violation and notify the public in accordance with 327 IAC 8-2.1-7 through 327 IAC 8-2.1-16.

(2) A public water system which has failed to comply with a coliform monitoring requirement, including the sanitary survey requirement, must report the monitoring violation to the commissioner within ten (10) days after the system discovers the violation, and notify the public in accordance with 327 IAC 8-2.1-7 through 327 IAC 8-2.1-16.

(c) The time from sample collection to initiation of

analysis cannot exceed thirty (30) hours. Systems are encouraged but not required to hold samples below ten (10) degrees Celsius during transit.

(d) The agency strongly recommends that laboratories evaluate the false-positive and negative rates for the method or methods they use for monitoring total coliforms. The agency also encourages laboratories to establish false-positive and negative rates within their own laboratory and sample matrix (drinking water or source water or both) with the intent that if the method they choose has an unacceptable false-positive or negative rate, another method can be used. The agency suggests that laboratories perform these studies on a minimum of five percent (5%) of all total coliform-positive samples, except for those methods where verification or confirmation or both is already required, for example, the M-Endo and LES Endo Membrane Filter Tests, Standard Total Coliform Fermentation Technique, and Presence-Absence Coliform Test. Methods for establishing false-positive and negative-rates may be based on lactose fermentation, the rapid test for  $\beta$ -galactosidase and cytochrome oxidase, multi-test identification systems, or equivalent confirmation tests. False-positive and false-negative information is often available in published studies or from the manufacturer, or both.

<sup>1</sup>Lactose broth, as commercially available, may be used in lieu of lauryl tryptose broth, if the system conducts at least twenty-five (25) parallel tests between this medium and lauryl tryptose broth using the water normally tested, and this comparison demonstrates that the false-positive rate and false-negative rate for total coliform, using lactose broth, is less than ten percent (10%).

<sup>2</sup>If inverted tubes are used to detect gas production, the media should cover these tubes at least one-half ( $\frac{1}{2}$ ) to two-thirds ( $\frac{2}{3}$ ) after the sample is added.

<sup>3</sup>No requirement exists to run the completed phase on ten percent (10%) of all total coliform-positive confirmed tubes.

<sup>4</sup>MI agar may also be used\*.

<sup>5</sup>Six-times formulation strength may be used if the medium is filter-sterilized rather than autoclaved.

<sup>6</sup>The OPNG-MUG test is also known as the Autoanalysis Colilert System.

<sup>7</sup>The Colisure Test may be read after an incubation time of twenty-four (24) hours.

\*The methods referenced in this section may be obtained as follows:

(1) Methods 9221A, 9221B, 9222A, 9222B, 9222C, 9221D, 9223, and 9221E may be found in “Standard Methods for the Examination of Water and Wastewater”, 1992, American Public Health Association, et al., 18<sup>th</sup> edition, or “Standard Methods for the

Examination of Water and Wastewater”, 1995, American Public Health Association, et al., 19<sup>th</sup> edition, available from the American Public Health Association, et al., 1015 Fifteenth Street N.W., Washington, D.C. 20005.

(2) A description of the Colisure test may be obtained from IDEXX Laboratories, Inc., One IDEXX Drive, Westbrook, Maine 04092.

(3) The minimal medium ONPG-MUG test may be found in “National Field Evaluation of a Defined Substrate Method for the Simultaneous Detection of Total Coliforms and Escherichia coli from Drinking Water: Comparison with Presence-Absence Techniques”, (Edberg, et al.), Applied and Environmental Microbiology, Volume 55, pages 1003–1008, April 1989.

(4) Preparation and use of MI agar is set forth in the article, “New Medium for the Simultaneous Detection of Total Coliforms and Escherichia coli in Water” by Brenner, K.P., et al., 1993, Applied and Environmental Microbiology, 59:3534-3544, and errata published in Applied and Environmental Microbiology, 59:4378. Also available from the Office of Water Resource Center (RC-4100), 401 M. Street S.W., Washington, D.C. 20460, EPA/600/J-99/225.

(5) A description of the E\*Colite<sup>®</sup> test, “Presence/Absence for Coliforms and E. coli in Water”, December 24, 1997, is available from Charm Sciences, Inc., 36 Franklin Street, Malden, Massachusetts 02148-4120.

(6) A description of the m-ColiBlue24<sup>®</sup> test, August 17, 1999, is available from the Hach Company, 100 Dayton Avenue, Ames, Iowa 50010.

These methods are available for copying at the Indiana Department of Environmental Management, Office of Water Quality, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board*; 327 IAC 8-2-8.4; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1023; errata filed Jan 9, 1991, 2:30 p.m.: 14 IR 1070; filed Apr 12, 1993, 11:00 a.m.: 16 IR 2158; filed Aug 25, 1997, 8:00 a.m.: 21 IR 51; errata filed Dec 10, 1997, 3:45 p.m.: 21 IR 1348; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3968; errata filed Jul 25, 2001, 3:25 p.m.: 24 IR 3991; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1092; errata filed Feb 22, 2002, 2:01 p.m.: 25 IR 2254)

### 327 IAC 8-2-8.5 Requirement for filtration and disinfection

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2  
**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 8.5. (a) Effective June 29, 1993, a public water system that uses a surface water source must provide

filtration in accordance with this section.

(b) A public water system that uses a ground water source under the direct influence of surface water shall provide filtration in accordance with this section beginning eighteen (18) months after the commissioner determines that it is under the direct influence of surface water from the date specified in section 8.2 of this rule.

(c) A public water system that uses a surface water source or a ground water source under the direct influence of surface water must provide treatment consisting of both disinfection, as specified in section 8.6 of this rule and filtration treatment. Filtration treatment shall be done by one (1) of the following techniques, and the turbidity level of representative samples of a system’s filtered water, regardless of filtration technique used, shall at no time exceed five (5) nephelometric turbidity units (NTU) in any given sample, measured as specified in section 8.7 of this rule:

(1) For systems using conventional filtration or direct filtration, the turbidity level of representative samples of a system’s filtered water must be less than or equal to one-half (0.5) NTU in at least ninety-five percent (95%) of the total number of measurements taken each month, measured as specified in sections 8.7(4) and 8.8(b) of this rule, except that if the commissioner determines that the system is capable of achieving at least ninety-nine and nine-tenths percent (99.9%) removal and/or inactivation of *Giardia lamblia* cysts at some turbidity level higher than one-half (0.5) NTU in at least ninety-five percent (95%) of the total number of measurements taken each month, the commissioner may substitute this higher turbidity limit for that system. However, in no case may the commissioner approve a turbidity limit that allows more than one (1) NTU in more than five percent (5%) of the samples taken each month, measured as specified in sections 8.7(4) and 8.8(b) of this rule. Upon the effective date of this rule, systems serving a population of at least ten thousand (10,000) individuals shall meet the turbidity requirements in 327 IAC 8-2-6-3.

(2) For systems using slow sand filtration, the turbidity level of representative samples of a system’s filtered water must be less than or equal to one (1) NTU in at least ninety-five percent (95%) of the measurements taken each month, measured as specified in sections 8.7(4) and 8.8(b) of this rule, except where the commissioner determines that there is no significant interference with disinfection at a higher turbidity level.

(3) For systems using diatomaceous earth filtration, the turbidity level of representative samples of a public water system’s filtered water must be less than or equal to one (1) NTU in at least ninety-five percent (95%) of

the measurements taken each month, measured as specified in sections 8.7(4) and 8.8(b) of this rule.

(4) A public water system may use a filtration technology not listed in this subsection if it demonstrates to the commissioner, using pilot plant studies or other means, that the alternative filtration technology, in combination with disinfection treatment that meets the requirements of section 8.6 of this rule, consistently achieves ninety-nine and nine-tenths percent (99.9%) removal and/or inactivation of *Giardia lamblia* cysts and ninety-nine and ninety-nine hundredths percent (99.99%) removal and/or inactivation of viruses. For a system that makes this demonstration, the requirements of this subsection apply. Upon the effective date of this rule, systems serving a population of at least ten thousand (10,000) individuals shall meet the requirements for other filtration technologies in 327 IAC 8-2.6-3.

(d) During plant operation, each public water system subject to this section shall be operated only by personnel who have been certified by the commissioner under 327 IAC 8-11 through 327 IAC 8-12.

(e) In addition to complying with requirements in this section, systems serving a population of at least ten thousand (10,000) individuals shall also comply with the requirements in 327 IAC 8-2.6-1. (*Water Pollution Control Board; 327 IAC 8-2-8.5; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1024; errata filed Apr 5, 1991, 3:30 p.m.: 14 IR 1626; errata, 14 IR 1730; filed Apr 12, 1993, 11:00 a.m.: 16 IR 2160; filed May 1, 2003, 12:00 p.m.: 26 IR 2816*)

### 327 IAC 8-2-8.6 Disinfection treatment

**Authority:** IC 13-1-3-4; IC 13-7-2-15; IC 13-7-7-5; IC 13-7-14-5  
**Affected:** IC 13-7

Sec. 8.6. Effective June 29, 1993, each public water system that provides filtration treatment must provide disinfection treatment as follows:

(1) The disinfection treatment must be sufficient to ensure that the total treatment processes of that system achieve at least ninety-nine and nine-tenths percent (99.9%) (3-log) inactivation and/or removal of *Giardia lamblia* cysts and at least ninety-nine and ninety-nine hundredths percent (99.99%) (4-log) inactivation and/or removal of viruses, as determined by the commissioner.

(2) The residual disinfectant concentration in the water entering the distribution system, measured as specified in sections 8.7(5) and 8.8(d) of this rule, cannot be less than two-tenths (0.2) milligram per liter for more than four (4) hours.

(3) The residual disinfectant concentration in the

distribution system, measured as total chlorine, combined chlorine, or chlorine dioxide, as specified in sections 8.7(5) and 8.8(d) of this rule, cannot be undetectable in more than five percent (5%) of the samples each month, for any two (2) consecutive months that the system serves water to the public. Water in the distribution system with a heterotrophic bacteria concentration less than or equal to five hundred (500) per milliliter, measured as heterotrophic plate count (HPC) as specified in section 8.7(3) of this rule, is deemed to have a detectable disinfectant residual for purposes of determining compliance with this requirement. Thus, the value V in the following formula cannot exceed five percent (5%) in one (1) month, for any two (2) consecutive months:

$$V = \frac{c+d+e}{a+b} \times 100$$

Where:

- a = number of instances where the residual disinfectant concentration is measured
- b = number of instances where the residual disinfectant concentration is not measured but HPC is measured
- c = number of instances where the residual disinfectant concentration is measured but not detected and no HPC is measured.
- d = number of instances where no residual disinfectant concentration is detected and where the HPC is greater than five hundred (500) per milliliter
- e = number of instances where the residual disinfectant concentration is not measured and HPC is greater than five hundred (500) per milliliter

(4) If the commissioner determines, based on site-specific considerations, that a system has no means for having a sample transported and analyzed for HPC by a certified laboratory under the requisite time and temperature conditions specified in section 8.7 of this rule and that the system is providing adequate disinfection in the distribution system, the requirements of subdivision (3) do not apply.

(*Water Pollution Control Board; 327 IAC 8-2-8.6; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1024; errata filed Jan 9, 1991, 2:30 p.m.: 14 IR 1070; filed Apr 12, 1993, 11:00 a.m.: 16 IR 2161*)

### 327 IAC 8-2-8.7 Analytical and monitoring requirements; fecal coliform, total coliform, turbidity, disinfection

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3;  
IC 13-18-16  
**Affected:** IC 13-11-2; IC 13-14-8; IC 13-18-1; IC 13-18-2

Sec. 8.7. Only the analytical methods and procedures specified in this section, or otherwise approved by EPA, may be used to demonstrate compliance with the requirements of sections 8.5 and 8.6 of this rule. Measurements for pH, turbidity, temperature, and residual disinfectant concentrations must be conducted using methods specified in this rule. Measurements for total coliforms, fecal coliforms, and HPC must be conducted by a laboratory certified by the commissioner or EPA under 40 CFR 141.28\*. Until laboratory certification criteria are developed for the analysis of fecal coliforms and HPC, any laboratory certified for total coliforms analysis by the commissioner or EPA is deemed certified for fecal coliforms and HPC analysis. The following procedures shall be conducted in accordance with the publications listed as follows:

- (1) Total coliform<sup>1</sup> as set forth in the following:
  - (A) Total coliform fermentation technique<sup>2, 3, 4</sup>, Method 9221A\*, B\*, and C\*.
  - (B) Total coliform membrane filter technique<sup>7</sup>, Method 9222A\*, B\*, and C\*.
  - (C) ONPG-MUG test membrane<sup>5</sup>, Method 9223\*.
- (2) Fecal coliforms<sup>1</sup> as set forth in:
  - (A) fecal coliform procedure<sup>7</sup>, Method 9221E\*; or
  - (B) fecal coliform filter procedure, Method 9222D.
- (3) Heterotrophic bacteria<sup>1</sup>, Method 9215B\*, pour plate method.
- (4) Turbidity as set forth in:
  - (A) nephelometric method, Method 2130B\* or Method 180.1\*; or
  - (B) Great Lakes Instruments method, Method 2\*.
- (5) Residual disinfectant concentrations for free chlorine and combined chlorine (chloramines) as set forth in the following methods:
  - (A) Method 4500-Cl D\*, amperometric titration method.
  - (B) Method 4500-Cl F\*, DPD ferrous titrimetric method.
  - (C) Method 4500-Cl G\*, DPD colorimetric method.
  - (D) Method 4500-Cl H\*, syringaldazine (FACTS).
  - (E) DPD colorimetric test kits, if approved by the commissioner.
  - (F) Free chlorine residuals may be measured continuously by adapting a specified chlorine residual method for use with a continuous monitoring instrument, provided the chemistry, accuracy, and precision remain the same. Instruments used for continuous monitoring must be calibrated with a grab sample measurement at least every five (5) days, or

with a protocol approved by the commissioner.

- (6) Residual disinfectant concentrations for ozone by the indigo method, Method 4500-O<sub>3</sub> B\*.
- (7) Residual disinfectant concentrations for chlorine dioxide must be measured by Method 4500-ClO<sub>2</sub> C, amperometric method, Method 4500-ClO<sub>2</sub> E\*, amperometric method, or Method 4500-ClO<sub>2</sub> D\*, DPD method.
- (8) Residual disinfectant concentrations for total chlorine by the following methods:
  - (A) Method 4500-Cl D\*, amperometric titration.
  - (B) Method 4500-Cl E\*, amperometric titration (low level measurement).
  - (C) Method 4500-Cl F\*, DPD ferrous titrimetric.
  - (D) Method 4500-Cl I, iodometric electrode.
  - (E) Method 4500-Cl G\*, DPD colorimetric.
  - (F) Total chlorine residuals may be measured continuously by adapting a specified chlorine residual method for use with a continuous monitoring instrument, provided the chemistry, accuracy, and precision remain the same. Instruments used for continuous monitoring must be calibrated with a grab sample measurement at least every five (5) days, or with a protocol approved by the commissioner.

<sup>1</sup>The time from sample collection to initiation of analysis may not exceed eight (8) hours. Systems must hold samples below ten (10) degrees Celsius during transit.

<sup>2</sup>Lactose broth, as commercially available, may be used in lieu of lauryl tryptose broth if the system conducts at least twenty-five (25) parallel tests between this medium and lauryl tryptose broth using the water normally tested, and this comparison demonstrates that the false-positive rate and false-negative rate for total coliforms using lactose broth, is less than ten percent (10%).

<sup>3</sup>Media should cover inverted tubes at least one-half (½) to two-thirds (⅔) after the sample is added.

<sup>4</sup>No requirement exists to run the completed phase on ten percent (10%) of all total coliform-positive confirmed tubes.

<sup>5</sup>The ONPG-MUG test is also known as the Autoanalysis Colilert System.

<sup>6</sup>MI Agar may also be used\*.

<sup>7</sup>A-1 broth may be held up to three (3) months in a tightly closed screwcap tube at four (4) degrees Celsius.

\*The following methods are incorporated by reference: (1) Methods referenced in this section, except Method 180.1 and the Great Lakes Instruments Method 2, may be found in "18<sup>th</sup> Edition of Standard Methods for the Examination of Water and Wastewater" and "19<sup>th</sup> Edition of Standard Methods for the Examination of Water and Wastewater", 1992 and 1995, available from the American Public Health Association, 1015 Fifteenth Street, Washington, D.C. 20005. Either edition may be used.

(2) Method 180.1 may be found in "Methods for the Determination of Inorganic Substances in Environmental Samples", EPA-600/R-93-100, August 1993, available from NTIS, PB94-121811, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161.

(3) The Great Lakes Instrument (GLI) Method 2 may be found in "Turbidity", November 2, 1992, Great Lakes Instruments, Inc., 8855 North 55th Street, Milwaukee, Wisconsin 53223.

(4) 40 CFR 141.28 may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

These methods are available for copying at the Indiana Department of Environmental Management, Office of Water Quality, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-2-8.7; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1025; errata filed Jan 9, 1991, 2:30 p.m.: 14 IR 1070; filed Apr 12, 1993, 11:00 a.m.: 16 IR 2161; filed Aug 25, 1997, 8:00 a.m.: 21 IR 53; errata filed Dec 10, 1997, 3:45 p.m.: 21 IR 1348; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3970*)

### **327 IAC 8-2-8.8 Monitoring requirements; systems that provide filtration treatment**

**Authority:** IC 13-1-3-4; IC 13-7-2-15; IC 13-7-14-5

**Affected:** IC 13-7

Sec. 8.8. (a) A public water system that uses a surface water source or a ground water source under the influence of surface water and provides filtration treatment must monitor in accordance with this section beginning June 29, 1993, or when filtration is installed, whichever is later.

(b) Turbidity measurements as required by section 8.5 of this rule must be performed on representative samples of the system's filtered water every four (4) hours (or more frequently) that the system serves water to the public. A public water system may substitute continuous turbidity monitoring for grab sample monitoring if it validates the continuous measurement for accuracy on a regular basis and obtains approval from the commissioner. For any systems using slow sand filtration, filtration treatment other than conventional treatment, direct filtration, or diatomaceous earth filtration, the commissioner may reduce the sampling frequency to once per day if he or she determines that less frequent monitoring is sufficient to indicate effective filtration performance. For systems serving five hundred (500) or fewer persons, the commissioner may reduce the turbidity sampling frequency to once per day, regardless of the type of filtration treatment used, if the commissioner

determines that less frequent monitoring is sufficient to indicate effective filtration performance.

(c) The residual disinfectant concentration of the water entering the distribution system must be monitored continuously, and the lowest value must be recorded each day, except that if there is a failure in the continuous monitoring equipment, grab sampling every four (4) hours may be conducted in lieu of continuous monitoring, but for no more than two (2) working days following the failure of the equipment, and systems serving three thousand three hundred (3,300) or fewer persons may take grab samples in lieu of providing continuous monitoring on an ongoing basis at the frequencies each day prescribed as follows:

System size by population	Samples per day*
<500	1
501-1,000	2
1,001-2,500	3
2,501-3,300	4

\*The day's samples cannot be taken at the same time. The sampling intervals are subject to review and approval by the commissioner.

If at any time the residual disinfectant concentration falls below two-tenths (0.2) milligram per liter in a system using grab sampling in lieu of continuous monitoring, the system must take a grab sample every four (4) hours until the residual disinfectant concentration is equal to or greater than two-tenths (0.2) milligram per liter.

(d) The residual disinfectant concentration must be measured at least at the same points in the distribution system and at the same time as total coliforms are sampled, as specified in section 8 of this rule, except that the commissioner may allow a public water system which uses both a surface water source or a ground water source under direct influence of surface water, and a ground water source to take disinfectant residual samples at points other than the total coliform sampling points if the commissioner determines that such points are more representative of treated (disinfected) water quality within the distribution system. Heterotrophic bacteria, measured as heterotrophic plate count (HPC), as specified in section 8.7(3) of this rule, may be measured in lieu of residual disinfectant concentration.

(e) If the commissioner determines, based on site-specific considerations, that a system has no means for having a sample transported and analyzed for HPC by a certified laboratory under the requisite time and temperature conditions specified in section 8.7(3) of this rule, and that the system is providing adequate disinfection in the distribution system, the requirements of subsection (d) do not apply to that system. (*Water Pollution Control Board; 327 IAC 8-2-8.8; filed Dec 28, 1990, 5:10 p.m.:*

14 IR 1026; filed Apr 12, 1993, 11:00 a.m.: 16 IR 2162)

**327 IAC 8-2-9 Radium-226, radium-228, and gross alpha particle radioactivity; maximum contaminant levels**

**Authority:** IC 13-1-3-4; IC 13-7-2-15; IC 13-7-7-5; IC 13-7-14-5  
**Affected:** IC 13-1-3-4; IC 13-7

Sec. 9. The following are the maximum contaminant levels for radium-226, radium-228, and gross alpha particle radioactivity:

- (1) Combined radium-226 and radium-228: five (5) picocuri per liter.
- (2) Gross alpha particle activity (including radium-226 but excluding radon and uranium): fifteen (15) picocuri per liter.
- (3) The sampling frequency for the contaminants listed in this section shall be pursuant to section 10.2 of this rule.

(Water Pollution Control Board; 327 IAC 8-2-9; filed Sep 24, 1987, 3:00 p.m.: 11 IR 708; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1027)

**327 IAC 8-2-10 Beta and photon radioactivity from manmade radionuclides; maximum contaminant levels**

**Authority:** IC 13-1-3-4; IC 13-7-2-15; IC 13-7-7-5; IC 13-7-14-5  
**Affected:** IC 13-1-3-4; IC 13-7

Sec. 10. (a) The average annual concentration of beta particle and photon radioactivity from manmade radionuclides in drinking water shall not produce an annual dose equivalent to the total body or any internal organ greater than four (4) millirem per year.

(b) Except for the radionuclides listed in the following table, the concentration of manmade radionuclides causing four (4) millirem total body or organ dose equivalent shall be calculated on the basis of a two (2) liter per day drinking water intake using the one hundred sixty-eight (168) hour data listed in "Maximum Permissible Body Burdens and Maximum Permissible Concentration of Radionuclides in Air or Water for Occupational Exposure," NBS Handbook 69 as amended August 1963, U.S. Department of Commerce. If two (2) or more radionuclides are present, the sum of their annual dose equivalent to the total body or to any organ shall not exceed four (4) millirem per year.

Average annual concentrations assumed to produce a total body organ dose of four (4) millirem per year

Radionuclide	Critical Organ	pCi per liter
Tritium	Total body	20,000
Strontium-90	Bone marrow	8

(c) The sampling frequency for the contaminants listed

in subsections (a) through (b) shall be pursuant to section 10.2 of this rule. (Water Pollution Control Board; 327 IAC 8-2-10; filed Sep 24, 1987, 3:00 p.m.: 11 IR 708; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1027; errata filed Aug 6, 1991, 3:45 p.m.: 14 IR 2258)

**327 IAC 8-2-10.1 Analytical methods for radioactivity**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16  
**Affected:** IC 13-18

Sec. 10.1. (a) The following methods shall be used to determine compliance with sections 9 through 10 of this rule, except in cases where alternative methods have been approved in accordance with section 32 of this rule:

(1) One (1) of the following methods shall be used to test for gross alpha and beta:

- (A) Method 900.0\*.
- (B) Page 1 of "Interim Radiochemical Methodology for Drinking Water\*".
- (C) Method 00-01\*.
- (D) Page 1 of "Radiochemical Analytical Procedures for Analysis of Environmental Samples\*".
- (E) Method 302\*.
- (F) Method 7110 B\*.
- (G) Method R-1120-76\*.

(2) One (1) of the following methods shall be used to test for gross alpha:

- (A) Method 00-02\*.
- (B) Method 7110 C\*.

(3) One (1) of the following methods shall be used to test for radium 226:

- (A) Method 903.1\*.
- (B) Method 903.0\*.
- (C) Page 16 of "Interim Radiochemical Methodology for Drinking Water\*".
- (D) Page 13 of "Interim Radiochemical Methodology for Drinking Water\*".
- (E) Method Ra-04\*.
- (F) Method Ra-03\*.
- (G) Page 19 of "Radiochemical Analytical Procedures for Analysis of Environmental Samples\*".
- (H) Method 7500-Ra C\*.
- (I) Method 304\*.
- (J) Method 305\*.
- (K) Method 7500-Ra B\*.
- (L) Method D 3454-91\*.
- (M) Method D 2460-90\*.
- (N) Method R-1141-76\*.
- (O) Method R-1142-76\*.
- (P) Method Ra-05\*.
- (Q) New York Method.

(4) One (1) of the following methods shall be used to test for radium 228:

- (A) Method 904.0\*.
- (B) Page 24 of "Interim Radiochemical Methodology for Drinking Water\*".
- (C) Method Ra-05\*.
- (D) Page 19 of "Radiochemical Analytical Procedures for Analysis of Environmental Samples\*".
- (E) Method 304\*.
- (F) Method 7500-Ra D\*.
- (G) Method R-1142-76\*.
- (H) New York Method.

(5) One (1) of the following methods shall be used to test for uranium:

- (A) Method 908.0\*.
- (B) Method 908.1\*.
- (C) Method 00-07\*.
- (D) Page 33 of "Radiochemical Analytical Procedures for Analysis of Environmental Samples\*".
- (E) 7500-U B\*.
- (F) 7500-U C\*.
- (G) D2907-91\*.
- (H) D 3972-90\*.
- (I) D 5174-91\*.
- (J) R-1180-76\*.
- (K) R-1181-76\*.
- (L) R-1182-76\*.
- (M) U-04\*.
- (N) U-02\*.
- (O) New Jersey Method.

(6) One (1) of the following methods shall be used to test for radioactive cesium:

- (A) Method 901.0\*.
- (B) Method 901.1\*.
- (C) Page 92 of "Radiochemical Analytical Procedures for Analysis of Environmental Samples\*".
- (D) Method 7500-Cs B\*.
- (E) Method 7120\*.
- (F) Method D 2459-72\*.
- (G) Method D 3649-91\*.
- (H) Method R-1111-76\*.
- (I) Method R-1110-76\*.
- (J) Method 4.5.2.3\*.

(7) One (1) of the following methods shall be used to test for radioactive iodine:

- (A) Method 902.0\*.
- (B) Method 901.1\*.
- (C) Page 6 of "Interim Radiochemical Methodology for Drinking Water\*".
- (D) Page 9 of "Interim Radiochemical Methodology for Drinking Water\*".
- (E) Page 92 of "Radiochemical Analytical Procedures for Analysis of Environmental Samples\*".

- (F) Method 7500-I B\*.
- (G) Method 7500-I C\*.
- (H) Method 7500-I D\*.
- (I) Method 7120\*.
- (J) Method D 4785-88\*.
- (K) Method 4.5.2.3\*.

(8) One (1) of the following methods shall be used to test for radioactive strontium 89 and 90:

- (A) Method 905.0\*.
- (B) Page 29 of "Interim Radiochemical Methodology for Drinking Water\*".
- (C) Method Sr-04\*.
- (D) Page 65 of "Radiochemical Analytical Procedures for Analysis of Environmental Samples\*".
- (E) Method 303\*.
- (F) Method 7500-Sr B\*.
- (G) Method R-1160-76\*.
- (H) Method Sr-01\*.
- (I) Method Sr-02\*.

(9) One (1) of the following methods shall be used to test for tritium:

- (A) Method 906.0\*.
- (B) Page 34 of "Interim Radiochemical Methodology for Drinking Water\*".
- (C) Method H-02\*.
- (D) Page 87 of "Radiochemical Analytical Procedures for Analysis of Environmental Samples\*".
- (E) Method 306\*.
- (F) Method 7500-3H B\*.
- (G) Method D 4107-91\*.
- (H) Method R-1171-76\*.

(10) One (1) of the following methods shall be used to test for gamma emitters:

- (A) Method 901.1\*.
- (B) Method 902.0\*.
- (C) Method 901.0\*.
- (D) Page 92 of "Radiochemical Analytical Procedures for Analysis of Environmental Samples\*".
- (E) Method 7120\*.
- (F) Method 7500-Cs B\*.
- (G) Method 7500-I B\*.
- (H) Method D 3649-91\*.
- (I) Method D 4785-88\*.
- (J) Method R-1110-76\*.
- (K) Method 4.5.2.3\*.

(b) When the identification and measurement of radionuclides other than those listed in subsection (a) is required, the following references are to be used, except in cases where alternative methods have been approved in accordance with section 32 of this rule:

- (1) Procedures for Radiochemical Analysis of Nuclear Reactor Aqueous Solutions, H.L. Krieger and S. Gold, EPA-R4-73-014, U.S. EPA, Cincinnati, Ohio, May 1973.

(2) HASL Procedure Manual, edited by John H. Harley. HASL 300, ERDA Health and Safety Laboratory, New York, New York 1973.

(c) For the purpose of monitoring radioactivity concentrations in drinking water, the required sensitivity of the radioanalysis is defined in terms of a detection limit. The detection limit shall be that concentration which can be counted with a precision of plus or minus one hundred percent (100%) at the ninety-five percent (95%) confidence level (one and ninety-six hundredths (1.96)  $\sigma$  where  $\sigma$  is the standard deviation of the net counting rate of the sample). Compliance requirements are as follows:

(1) To determine compliance with section 9(1) of this rule, the detection limit shall not exceed one (1) picocuri per liter.

(2) To determine compliance with section 9(2) of this rule, the detection limit shall not exceed three (3) picocuri per liter.

(3) To determine compliance with section 10 of this rule, the detection limits shall not exceed the concentrations listed in the following table:

Detection limits for manmade beta particle and photon emitters:

<u>Radionuclide</u>	<u>Detection limit</u>
Tritium	1,000 pCi/l
Strontium-89	10 pCi/l
Strontium-90	2 pCi/l
Iodine-131	1 pCi/l
Cesium-134	10 pCi/l
Gross beta	4 pCi/l
Other radionuclides	1/10 of the applicable limit

(d) To determine compliance with the MCL listed in sections 9 through 10 of this rule, averages of data shall be used and shall be rounded to the same number of significant figures as the MCL for the contaminant in question.

\*The methods referenced in this section may be obtained as follows:

(1) Methods 900.0, 903.1, 903.0, 904.0, 908.0, 908.1, 901.0, 901.1, 902.0, 905.0, and 906.0 may be found in "Prescribed Procedures for Measurement of Radioactivity in Drinking Water", EPA 600/4-80-032, August 1980, PB 80-224744. Available from U.S. Department of Commerce, National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161, 800-553-6847.

(2) "Interim Radiochemical Methodology for Drinking Water", EPA 600/4-75-008 (revised), March 1976, PB 253258. Available from U.S. Department of Commerce, National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161, 800-553-6847.

(3) Methods 00-01, 00-02, Ra-04, Ra-03, Ra-05, 00-07, Sr-04, and H-02 may be found in "Radiochemistry Procedures Manual", EPA 520/5-84-006, December 1987, PB 84-215581. Available from U.S. Department of Commerce, National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161, 800-553-6847.

(4) "Radiochemical Analytical Procedures for Analysis of Environmental Samples", March 1979, EMSL LV 053917. Available from U.S. Department of Commerce, National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161, 800-553-6847.

(5) Methods 7110 B, 7110 C, 7500-Ra C, 7500-Ra B, 7500-Ra D, 7500-U B, 7500-Cs B, 7500-I B, 7500-I C, 7500-I D, 7500-Sr B, and 7500-3H B may be found in "Standard Methods for the Analysis of Water and Wastewater", 17<sup>th</sup>, 18<sup>th</sup>, and 19<sup>th</sup> Editions, 1989, 1992, and 1995. Available from American Public Health Association, 1015 Fifteenth Street N.W., Washington D.C. 20005.

(6) Methods 302, 304, 305, 303, and 306 may be found in "Standard Methods for the Analysis of Water and Wastewater", 13<sup>th</sup> Edition, 1971. Available from American Public Health Association, 1015 Fifteenth Street N.W., Washington D.C. 20005.

(7) Method 7500-U C may be found in "Standard Methods for the Analysis of Water and Wastewater", 13<sup>th</sup> and 17<sup>th</sup> Editions, 1971, 1989. Available from American Public Health Association, 1015 Fifteenth Street N.W., Washington D.C. 20005.

(8) Method 7120 may be found in "Standard Methods for the Analysis of Water and Wastewater", 19<sup>th</sup> Edition, 1995. Available from American Public Health Association, 1015 Fifteenth Street N.W., Washington D.C. 20005.

(9) Methods D 3454-91, D 2460-90, D2907-91, D 3972-90, D 5174-91, D 2459-72, D 3649-91, D4785-88, and D 4107-91 may be found in Annual Book of ASTM Standards, Vol 11.02, 1994. Available from American Society of Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428.

(10) Methods R-1120-76, R-1141-76, R-1140-76, R-1142-76, R-1180-76, R-1181-76, R-1182-76, R-1111-76, R-1110-76, R-1160-76, and R-1171-76 may be found in "Methods for Determination of Radioactive Substances in Water and Fluvial Sediments", Chapter A5 in Book 5 of Techniques of Water-Resources Investigations of the United States Geological Survey, 1977. Available from U.S. Geologic Survey (USGS) Information Services, Box 25286, Federal Center, Denver, Colorado 80225-0425.

(11) Methods U-04, U-2, Ra-05, 4.5.2.3, Sr-01, and Sr-02 may be found in "EML Procedures Manual", 27<sup>th</sup> Edition, Volume 1, 1990. Available from Environmental Measurements Laboratory, U.S. Department of Energy (DOE), 376 Hudson Street, New York, New York 10014-3621.

(12) New York Methods may be found in "Determination of Ra-226 and Ra-228 (Ra-02)", January 1980, Revised June 1982. Available from Radiological Sciences Institute Center for Laboratories and Research, New York State Department of Health, Empire State Plaza, Albany, New York 12201.

(13) New Jersey Method may be found in "Determination of Radium 228 in Drinking Water", August 1980. Available from State of New Jersey, Department of Environmental Protection, Division of Environmental Quality, Bureau of Radiation and Inorganic Analytical Services, 9 Ewing Street, Trenton, New Jersey 08625. (*Water Pollution Control Board; 327 IAC 8-2-10.1; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1028; errata filed Aug 6, 1991, 3:45 p.m.: 14 IR 2258; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3971*)

### **327 IAC 8-2-10.2 Monitoring frequency for radioactivity; community water systems**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 10.2. (a) Monitoring requirements for gross alpha particle activity, radium-226, and radium-228 in community water systems are as follows:

(1) Compliance with section 9 of this rule shall be based on the analysis of an annual composite of four (4) consecutive quarterly samples or the average of the analyses of four (4) samples obtained at quarterly intervals as follows:

(A) A gross alpha particle activity measurement may be substituted for the required radium-226 and radium-228 analysis, provided that the measured gross alpha particle activity does not exceed five (5) picocuri per liter at a confidence level of ninety-five percent (95%) (one and sixty-five hundredths (1.65)  $\sigma$  where  $\sigma$  is the standard deviation of the net counting rate of this sample). In localities where radium-228 may be present in drinking water, it is recommended that the commissioner require radium-226 or radium-228, or both, analyses when the gross alpha particle activity exceeds two (2) picocuri per liter.

(B) When the gross alpha particle activity exceeds five (5) picocuri per liter, the same or an equivalent sample shall be analyzed for radium-226. If the

concentration of radium-226 exceeds three (3) picocuri per liter, the same or an equivalent sample shall be analyzed for radium-228.

(2) Suppliers of water shall monitor at least once every four (4) years following the procedure required by subdivision (1). At the discretion of the commissioner, when an annual record taken in conformance with subdivision (1) has established that the average annual concentration is less than one-half ( $\frac{1}{2}$ ) the MCL established by section 9 of this rule, analysis of a single sample may be substituted for the quarterly sampling procedure required by subdivision (1) as follows:

(A) More frequent monitoring shall be conducted when ordered by the commissioner in the vicinity of mining or other operations which may contribute alpha particle radioactivity to either surface or ground water sources of drinking water.

(B) A supplier of water shall monitor in conformance with subdivision (1) within one (1) year of the introduction of a new water source for a community water system. More frequent monitoring shall be conducted when ordered by the commissioner in the event of possible contamination, or when changes in the distribution system or treatment processing occur which may increase the concentration of radioactivity in finished water.

(C) A community water system using two (2) or more sources having different concentrations of radioactivity shall monitor source water, in addition to water from a free-flowing tap, when ordered by the commissioner.

(D) Monitoring for compliance with section 9 of this rule after the initial period need not include radium-228 except when required by the commissioner, provided that the average annual concentration of radium-228 has been assayed at least once using the quarterly sampling procedure required by subdivision (1).

(E) Suppliers of water shall conduct monitoring of any community water system in which the radium-226 concentration exceeds three (3) picocuri per liter, when ordered by the commissioner.

(3) If the average annual MCL for gross alpha particle activity or total radium as set forth in section 9 of this rule is exceeded, the supplier for a community water system shall report to the commissioner pursuant to section 13 of this rule and notify the public pursuant to 327 IAC 8-2.1-7 through 327 IAC 8-2.1-16. Monitoring at quarterly intervals shall be continued until the annual average concentration no longer exceeds the MCL or until a monitoring schedule as a condition to an enforcement action shall become effective.

(b) Monitoring requirements for manmade radioactivity in community water systems are as follows:

(1) Systems using surface water sources and serving more than one hundred thousand (100,000) persons and such other community water systems as are designated by the commissioner shall be monitored for compliance with section 10 of this rule by analysis of a composite of four (4) consecutive quarterly samples or analysis of four (4) quarterly samples. Compliance with section 10 of this rule may be assumed without further analysis if the average annual concentration of gross beta particle activity is less than fifty (50) picocuri per liter and if the average annual concentrations of tritium and strontium-90 are less than those listed in the table in section 10 of this rule. Provided, that if both radionuclides are present, the sum of their annual dose equivalents to bone marrow shall not exceed four (4) millirem per year as follows:

(A) If the gross beta particle activity exceeds fifty (50) picocuri per liter an analysis of the sample must be performed to identify the major radioactive constituents present and the appropriate organ and total body doses shall be calculated to determine compliance with section 10 of this rule.

(B) Suppliers of water shall conduct additional monitoring, as ordered by the commissioner, to determine the concentration of manmade radioactivity in principal watersheds designated by the commissioner.

(C) At the discretion of the commissioner, suppliers of water utilizing only ground water may be required to monitor for manmade radioactivity.

(2) Suppliers of water shall monitor at least every four (4) years following the procedure given in subdivision (1).

(3) The supplier for any community water system designated by the commissioner as utilizing waters contaminated by effluents from nuclear facilities shall initiate quarterly monitoring for gross beta particle and iodine-131 radioactivity and annual monitoring for strontium-90 and tritium as follows:

(A) Quarterly monitoring for gross beta particle activity shall be based on the analysis of monthly samples or the analysis of a composite of three (3) monthly samples. The former is recommended. If the gross beta particle activity in a sample exceeds fifteen (15) picocuri per liter, the same or an equivalent sample shall be analyzed for strontium-89 and cesium-134. If the gross beta particle activity exceeds fifty (50) picocuri per liter, an analysis of the sample must be performed to identify the major radioactive constituents present and the appropriate organ and total body doses shall be calculated to determine compliance with section 10 of this rule.

(B) For iodine-131, a composite of five (5) consecutive daily samples shall be analyzed once each quarter. At the direction of the commissioner, more frequent monitoring shall be conducted when iodine-131 is identified in the finished water.

(C) Annual monitoring for strontium-90 and tritium shall be conducted by analysis of a composite of four (4) consecutive quarterly samples or analysis of four (4) quarterly samples. The latter procedure is recommended.

(D) The commissioner may allow the substitution of environmental surveillance data taken in conjunction with a nuclear facility for direct monitoring of manmade radioactivity by the supplier of water where the commissioner determines such data are applicable to a particular community water system.

(4) If the average annual MCL for manmade radioactivity set forth in section 10 of this rule is exceeded, the operator of a community water system shall report to the commissioner pursuant to section 13 of this rule and give notice to the public pursuant to 327 IAC 8-2.1-7 through 327 IAC 8-2.1-16. Monitoring at monthly intervals shall be continued until the concentration no longer exceeds the MCL or until a monitoring schedule as a condition to an enforcement action shall become effective.

*(Water Pollution Control Board; 327 IAC 8-2-10.2; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1029; errata filed Aug 6, 1991, 3:45 p.m.: 14 IR 2258; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1094; errata filed Feb 22, 2002, 2:01 p.m.: 25 IR 2254)*

### **327 IAC 8-2-11 Modification of sampling frequency by board (Repealed)**

Sec. 11. *(Repealed by Water Pollution Control Board; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1047)*

### **327 IAC 8-2-12 Maximum contaminant level exceeded; required procedure (Repealed)**

Sec. 12. *(Repealed by Water Pollution Control Board; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1047)*

### **327 IAC 8-2-13 Reporting requirements; test results and failure to comply**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 13. (a) Except where a shorter period is specified in this rule, the supplier of water or the certified labora-

tory, as certified by the commissioner, provided the supplier of water has granted permission in writing to the laboratory using forms provided by the commissioner, and that permission is on file with the commissioner, shall report to the commissioner the results of any test measurement or analysis required by this rule within:

(1) the first ten (10) days following the month in which the result is received; or

(2) the first ten (10) days following the end of the required monitoring period as stipulated by the commissioner, whichever is shorter.

(b) The supplier of water or the certified laboratory, as certified by the commissioner, provided the supplier of water has granted permission in writing to the laboratory using forms provided by the commissioner, and that permission is on file with the commissioner, shall report to the commissioner within forty-eight (48) hours of completion of laboratory analysis the failure to comply with any MCL and any other requirement set forth in this rule by telephone or the methods specified in subsection (e). If notification is made by telephone, the results must follow using one (1) of the methods specified in subsection (e) within forty-eight (48) hours of the telephone notification.

(c) The supplier of water or the certified laboratory, as certified by the commissioner, provided the supplier of water has granted permission in writing to the laboratory using forms provided by the commissioner, and that permission is on file with the commissioner, shall report to the commissioner within (48) hours of completion of laboratory analysis any positive total coliform results by telephone or the methods specified in subsection (e). If notification is made by telephone, the results must follow using one (1) of the methods specified in subsection (e) within forty-eight (48) hours of the telephone notification.

(d) The supplier of water, within ten (10) days of completing the public notification required by 327 IAC 8-2.1-7 through 327 IAC 8-2.1-16, for the initial public notice and any repeat notices, shall submit to the commissioner a certification that it has fully complied with the public notification regulations. The public water system must include with this certification a representative copy of each type of notice distributed, published, posted, or made available to the persons served by the system or to the media.

(e) The submittal of the information required under this section shall be submitted in one (1) of the following manners:

- (1) Mail.
- (2) Facsimile.
- (3) Electronic mail.
- (4) Hand delivery.

(5) Other means determined by the commissioner to provide the degree of confidentiality, reliability, convenience, and security appropriate to the information to be submitted.

*(Water Pollution Control Board; 327 IAC 8-2-13; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1030; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3974; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1096; errata filed Feb 22, 2002, 2:01 p.m.: 25 IR 2254; filed May 1, 2003, 12:00 p.m.: 26 IR 2817)*

### **327 IAC 8-2-14 Reporting and record keeping requirements; systems that provide filtration**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 14. (a) Effective June 29, 1993, a public water system that uses a surface water source or a ground water source under the direct influence of surface water and provides filtration treatment must report monthly to the commissioner the information specified in this section. Systems shall submit information to the commissioner using the methods specified in section 13(e) of this rule.

(b) Turbidity measurements as required by section 8.8(b) of this rule must be reported within ten (10) days after the end of each month the system serves water to the public. Information that must be reported includes the following:

(1) The total number of filtered water turbidity measurements taken during the month.

(2) The number and percentage of filtered water turbidity measurements taken during the month which are less than or equal to the turbidity limits specified in section 8.5(c) of this rule for the filtration technology being used.

(3) The date and value of any turbidity measurements taken during the month which exceed five (5) nephelometric turbidity units (NTU).

(c) Disinfection information specified in section 8.8 of this rule must be reported to the commissioner within ten (10) days after the end of each month the system serves water to the public. Information that must be reported includes the following:

(1) For each day, the lowest measurement of residual disinfectant concentration in milligrams per liter in water entering the distribution system.

(2) The date and duration of each period when the residual disinfectant concentration in water entering the distribution system fell below two-tenths (0.2) milligram per liter and when the commissioner was notified of the occurrence.

(3) The following information on the samples taken in

the distribution system in conjunction with total coliform monitoring under section 8.6 of this rule:

(A) Number of instances where the residual disinfectant concentration is measured.

(B) Number of instances where the residual disinfectant concentration is not measured but heterotrophic bacteria plate count (HPC) is measured.

(C) Number of instances where the residual disinfectant concentration is measured but not detected and no HPC is measured.

(D) Number of instances where no residual disinfectant concentration is detected and where HPC is greater than five hundred (500) per milliliter.

(E) Number of instances where the residual disinfectant concentration is not measured and HPC is greater than five hundred (500) per milliliter.

(F) For the current and previous month the system serves water to the public, the value of V in the following formula:

$$V = \frac{c+d+e}{a+b} \times 100$$

Where: a = The value in clause (A).  
 b = The value in clause (B).  
 c = The value in clause (C).  
 d = The value in clause (D).  
 e = The value in clause (E).

(G) The commissioner may determine, based on site-specific considerations, that a system has no means for having a sample transported and analyzed for HPC by a certified laboratory within the requisite time and temperature conditions specified by section 8.7(3) of this rule and that the system is providing adequate disinfection in the distribution system, the requirements of clauses (A) through (F) do not apply.

(4) A system need not report the data listed in subdivision (1) if all data listed in subdivisions (1) through (3) remain on file at the system and the commissioner determines that the system has submitted all the information required by subdivisions (1) through (3) for at least twelve (12) months.

(d) Each system, upon discovering that a waterborne disease outbreak potentially attributable to that water system has occurred, must report that occurrence to the commissioner as soon as possible, but no later than by the end of the next business day. If at any time the turbidity exceeds five (5) NTU, the system must consult with the department of environmental management as soon as practical, but no later than twenty-four (24) hours after the exceedance is known in accordance with the public notification requirements under 327 IAC 8-2-1-9(b)(3). If at any time the residual falls below two-tenths

(0.2) milligram per liter in the water entering the distribution system, the system must notify the commissioner as soon as possible, but no later than the end of the next business day. The system also must notify the commissioner by the end of the next business day whether or not the residual was restored to at least two-tenths (0.2) milligram per liter within four (4) hours. (*Water Pollution Control Board; 327 IAC 8-2-14; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1031; filed Apr 12, 1993, 11:00 a.m.: 16 IR 2163; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3974; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1096*)

**327 IAC 8-2-15 Failure to comply; maximum contaminant level, treatment technique, or variance schedule (Repealed)**

Sec. 15. (*Repealed by Water Pollution Control Board; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1123*)

**327 IAC 8-2-16 Public notification; required language for inorganic contaminants (Repealed)**

Sec. 16. (*Repealed by Water Pollution Control Board; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1123*)

**327 IAC 8-2-17 Public notification; required language for organic contaminants (Repealed)**

Sec. 17. (*Repealed by Water Pollution Control Board; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1123*)

**327 IAC 8-2-18 Public notification; required language for microbiological contaminants (Repealed)**

Sec. 18. (*Repealed by Water Pollution Control Board; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1123*)

**327 IAC 8-2-19 Public notification requirements pertaining to lead**

**Authority:** IC 13-1-3-4; IC 13-7-2-15; IC 13-7-7-5; IC 13-7-14-5  
**Affected:** IC 13-1-3-4; IC 13-7

Sec. 19. (a) Except as provided in subsection (c), by June 19, 1988, the owner or operator of each community water system and each nontransient, noncommunity water system shall issue notice to persons served by the system that may be affected by lead contamination of their drinking water.

(b) The commissioner may require subsequent notices.

The owner or operator shall provide notice under this section even if there is no violation of the MCL for lead.

(c) Notice under subsection (a) is not required if the system demonstrates to the commissioner that the water system, including the residential and nonresidential portions connected to the water system, are lead free. For purposes of this section, the term "lead free" when used with respect to solders and flux refers to solders and flux containing not more than two-tenths percent (0.2%) lead, and when used with respect to pipes and pipe fittings refers to pipes and pipe fittings containing not more than eight percent (8%) lead.

(d) Notice shall be given to persons served by the system by:

- (1) three (3) newspaper notices, one (1) for each of three (3) consecutive months and the first no later than June 19, 1988;
- (2) the water bill or in a separate mailing by June 19, 1988; or
- (3) once by hand delivery by June 19, 1988.

(e) For nontransient noncommunity water systems, notice may be given by continuous posting. If posting is used, the notice shall be posted in a conspicuous place in the area served by the system and start no later than June 19, 1988, and continue for three (3) months.

(f) Notices issued under this section shall include the following:

- (1) Provide a clear and readily understandable explanation of the potential sources of lead in drinking water, potential adverse health effects, reasonably available methods of mitigating known or potential lead content in drinking water, any steps the water system is taking to mitigate lead content in drinking water, and the necessity for seeking alternative water supplies, if any. Use of the mandatory language in subsection (h) in the notice will be sufficient to explain potential adverse health effects.
- (2) Include specific advice on how to determine if materials containing lead have been used in homes or the water distribution system, and how to minimize exposure to water likely to contain high levels of lead. Each notice shall be conspicuous and shall not contain unduly technical language, unduly small print, or similar problems that frustrate the purpose of the notice. Each notice shall contain the telephone number of the owner, operator, or designee of the public water system as a source of additional information regarding the notice. Where appropriate, the notice shall be multilingual.

(g) Optional information to be given may be that each notice should advise persons served by the system to use only the cold water faucet for drinking and for use in cooking or preparing baby formula, and to run the water

until it gets as cold as it is going to get before each use. If there has recently been major water use in the household, such as showering or bathing, flushing toilets, or doing laundry with cold water, flushing the pipes should take five (5) to thirty (30) seconds; if not, flushing the pipes could take as long as several minutes. Each notice should also advise persons served by the system to check to see if lead pipes, solder, or flux have been used in plumbing that provides tap water and to ensure that new plumbing and plumbing repairs use lead free materials. The only way to be sure of the amount of lead in the household water is to have the water tested by a competent laboratory. Testing is especially important to apartment dwellers because flushing may not be effective in high-rise buildings that have lead-soldered central piping. As appropriate, the notice should provide information on testing.

(h) When providing the information in public notices required under subsection (f) on the potential adverse health effects of lead in drinking water, the owner or operator of the water system shall include the following specific language in the notice:

"The Indiana Department of Environmental Management sets drinking water standards and has determined that lead is a health concern at certain levels of exposure. There is currently a standard of 0.050 parts per million. Based on new health information, the Indiana Department of Environmental Management is likely to lower this standard significantly.

Part of the purpose of this notice is to inform you of the potential adverse health effects of lead. This is being done even though your water may not be in violation of the current standard.

Indiana Department of Environmental Management and others are concerned about lead in drinking water. Too much lead in the human body can cause serious damage to the brain, kidneys, nervous system, and red blood cells. The greatest risk, even with short-term exposure, is to young children and pregnant women.

Lead levels in your drinking water are likely to be highest:

- ! if your home or water system has lead pipes, or
- ! if your home has copper pipes with lead solder, and
- ! if the home is less than five years old, or
- ! if you have soft or acidic water, or
- ! if water sits in the pipes for several hours."

(i) The commissioner may give notice to the public required by this section on behalf of the owner or operator of the water system if the commissioner meets the requirements of subsection (d) and the notice contains all the information specified in subsections (f) and (h). However, the owner or operator of the water system remains legally responsible for ensuring that the require-

ments of this section are met. (*Water Pollution Control Board; 327 IAC 8-2-19; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1037; errata filed Aug 6, 1991, 3:45 p.m.: 14 IR 2258*)

### 327 IAC 8-2-20 Record maintenance

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9, IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 20. Any owner or operator of a public water system subject to the provisions of this rule shall retain on its premises or at a convenient location near its premises the following records:

(1) Records of bacteriological analyses made under this rule shall be kept for not less than five (5) years. Records of chemical and radiological analyses made under this rule shall be kept for not less than ten (10) years. Actual laboratory reports may be kept, or data may be transferred to tabular summaries, provided that the following information is included:

(A) The date, place, and time of sampling, and the name of the person who collected the sample.

(B) Identification of the sample as to whether it was a routine distribution system sample, check sample, raw or process water sample, or other special purpose sample.

(C) Date of analysis.

(D) Laboratory and person responsible for performing analysis.

(E) The analytical technique/method used.

(F) The results of the analysis.

(2) Records of action taken by the system to correct violations of this rule shall be kept for not less than three (3) years after the last action taken with respect to the particular violation involved.

(3) Copies of any written reports, summaries, or communications relating to sanitary surveys of the system conducted by the system itself, by a private consultant, or by any local, state, or federal agency, shall be kept for not less than ten (10) years after completion of the sanitary survey involved.

(4) Copies of public notices issued pursuant to 327 IAC 8-2.1-7 through 327 IAC 8-2.1-16 and certifications made to the primacy agency pursuant to section 13 of this rule must be kept for three (3) years after issuance.

(*Water Pollution Control Board; 327 IAC 8-2-20; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1038; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1097*)

### 327 IAC 8-2-21 Special monitoring for sodium

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-11-2; IC 13-14-8; IC 13-18-1; IC 13-18-2

Sec. 21. (a) Suppliers of water for community public water systems shall collect and analyze one (1) sample per treatment plant at the entry point of the distribution system for the determination of sodium concentration levels. Samples must be collected and analyzed annually for systems utilizing surface water sources in whole or in part, and at least every three (3) years for systems utilizing solely ground water sources. The minimum number of samples required to be taken by the system shall be based on the number of treatment plants used by the system, except that multiple wells drawing raw water from a single aquifer may, with the commissioner's approval, be considered one (1) treatment plant for determining the minimum number of samples. The supplier of water may be required by the commissioner to collect and analyze water samples for sodium more frequently in locations where the sodium content is variable.

(b) The supplier of water shall report to the commissioner the results of the analyses for sodium within the first ten (10) days of the month following the month in which the sample results were received or within the first ten (10) days following the end of the required monitoring period as stipulated by the commissioner, whichever of these is first. If more than annual sampling is required, the supplier shall report the average sodium concentration within ten (10) days of the month following the month in which the analytical result of the last sample used for the annual average was received. Systems shall submit information to the commissioner using the methods specified in section 13(e) of this rule.

(c) The supplier of water shall notify the commissioner and appropriate local public health officials of the sodium levels by written notice by direct mail within three (3) months. A copy of each notice required to be provided by this subsection shall be sent to the commissioner within ten (10) days of its issuance. The supplier of water is not required to notify the commissioner and appropriate local public health officials of the sodium levels where the commissioner provides such notices in lieu of the supplier.

(d) Analyses for sodium shall be performed by the following methods:

(1) Inductively coupled plasma, Method 200.7\*.

(2) Atomic absorption; direct aspiration, Method 3111B\*.

\*Methods referenced in this section may be obtained as follows:

(1) Method 200.7 may be found in "Methods for the Determination of Metals in Environmental Samples-Supplement 1", EPA-600/R-94-111, May 1994, available from NTIS, PB95-125472, U.S. Department of Commerce, 5285 Port Royal Road, Springfield,

Virginia 22161.

(2) Method 3111B may be found in “Standard Methods for the Examination of Water and Wastewater”, 18<sup>th</sup> Edition, 1992, or “Standard Methods for the Examination of Water and Wastewater”, 19<sup>th</sup> Edition, 1995, American Public Health Association, available from the American Public Health Association, 1015 Fifteenth Street N.W., Washington, D.C. 20005. Either edition may be used.

These methods are available for copying at the Indiana Department of Environmental Management, Office of Water Quality, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-2-21; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1039; filed Aug 25, 1997, 8:00 a.m.: 21 IR 68; errata filed Dec 10, 1997, 3:45 p.m.: 21 IR 1348; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3977*)

**327 IAC 8-2-22 Special monitoring for corrosivity characteristics and lead ban**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-11-2; IC 13-14-8; IC 13-18-1; IC 13-18-2

Sec. 22. (a) Community water supply systems shall identify whether the following construction materials are present in their piping, storage structures, pumps, and controls used to deliver water to the public, and report to the commissioner:

- (1) Lead from piping solder, caulking, interior lining of distribution mains, alloys, and home plumbing.
- (2) Copper from piping and alloys, service lines, and home plumbing.
- (3) Galvanized piping, service lines, and home plumbing.
- (4) Ferrous piping materials such as cast iron and steel.
- (5) Asbestos cement pipe.

(b) In addition, the commissioner may require identification and reporting of other construction materials present in their piping, storage structures, pumps, and controls used to deliver water to the public that may contribute contaminants to the drinking water, such as:

- (1) vinyl lined asbestos cement pipe;
- (2) coal tar lined pipes and tanks; and
- (3) solders, flux, pipes, and pipe fittings not in compliance with 675 IAC 16, the Indiana Plumbing Code.

(*Water Pollution Control Board; 327 IAC 8-2-22; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1039; errata filed Aug 6, 1991, 3:45 p.m.: 14 IR 2259; filed Aug 25, 1997, 8:00 a.m.: 21 IR 68*)

**327 IAC 8-2-23 Special monitoring for inorganic and organic contaminants (Repealed)**

Sec. 23. (*Repealed by Water Pollution Control Board; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3985*)

**327 IAC 8-2-24 Use of noncentralized treatment devices**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 24. Public water systems shall not use bottled water to achieve compliance with an MCL. (Upon approval by the commissioner, bottled water, point-of-use, or point-of-entry treatment devices may be used on a temporary basis to avoid an unreasonable risk to health.) (*Water Pollution Control Board; 327 IAC 8-2-24; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1042; filed Aug 24, 1994, 8:15 a.m.: 18 IR 65; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3977*)

**327 IAC 8-2-25 Authority to grant and procedure to request a variance (Repealed)**

Sec. 25. (*Repealed by Water Pollution Control Board; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3985*)

**327 IAC 8-2-26 Consideration of a variance request (Repealed)**

Sec. 26. (*Repealed by Water Pollution Control Board; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3985*)

**327 IAC 8-2-27 Public hearings on variances and schedules (Repealed)**

Sec. 27. (*Repealed by Water Pollution Control Board; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3985*)

**327 IAC 8-2-28 Additional conditions for variances from the maximum contaminant levels for volatile organic compounds (Repealed)**

Sec. 28. (*Repealed by Water Pollution Control Board; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3985*)

**327 IAC 8-2-29 Reporting and public notification; unregulated contaminants (Repealed)**

Sec. 29. (*Repealed by Water Pollution Control Board; filed May 1, 2003, 12:00 p.m.: 26 IR 2859*)

**327 IAC 8-2-30 Maximum contaminant level goals; organic compounds**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2  
**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 30. (a) MCLGs are zero (0) for the following organic compounds:

- (1) Benzene.
- (2) Vinyl chloride.
- (3) Carbon tetrachloride.
- (4) 1,2-dichloroethane.
- (5) Trichloroethylene.
- (6) Acrylamide.
- (7) Alachlor.
- (8) Chlordane.
- (9) Dibromochloropropane.
- (10) 1,2-dichloropropane.
- (11) Epichlorohydrin.
- (12) Ethylene dibromide.
- (13) Heptachlor.
- (14) Heptachlor epoxide.
- (15) Pentachlorophenol.
- (16) Polychlorinated biphenyls (PCBs).
- (17) Tetrachloroethylene.
- (18) Toxaphene.
- (19) Benzo[a]pyrene.
- (20) Dichloromethane.
- (21) Di(2-ethylhexyl)phthalate.
- (22) Hexachlorobenzene.
- (23) 2,3,7,8-TCDD (dioxin).

(b) MCLGs for the following organic compounds are as follows:

<u>Contaminant</u>	<u>MCLG in Milligrams Per Liter</u>
1,1-dichloroethylene	0.007
1,1,1-trichloroethane	0.20
para-dichlorobenzene	0.075
Aldicarb	0.001
Aldicarb sulfoxide	0.001
Aldicarb sulfone	0.001
Atrazine	0.003
Carbofuran	0.04
Ortho-dichlorobenzene	0.6
cis-1,2-dichloroethylene	0.07
trans-1,2-dichloroethylene	0.1
2,4-D	0.07
Ethylbenzene	0.7
Lindane	0.0002
Methoxychlor	0.04
Monochlorobenzene	0.1

Styrene	0.1
Toluene	1
2,4,5-TP	0.05
Xylenes	10
Dalapon	0.2
Di(2-ethylhexyl)adipate	0.4
Dinoseb	0.007
Diquat	0.02
Endothall	0.1
Endrin	0.002
Glyphosate	0.7
Hexachlorocyclopentadiene	0.05
Oxamyl (vydate)	0.2
Picloram	0.5
Simazine	0.004
1,2,4-trichlorobenzene	0.07
1,1,2-trichloroethane	0.003

(c) MCLGs for the following disinfection byproducts are as follows:

<u>Disinfection Byproduct</u>	<u>MCLG (mg/L)</u>
Bromodichloromethane	0
Bromoform	0
Bromate	0
Dichloroacetic acid	0
Trichloroacetic acid	0.3
Chlorite	0.8
Dibromochloromethane	0.06

(Water Pollution Control Board; 327 IAC 8-2-30; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1047; filed Aug 24, 1994, 8:15 a.m.: 18 IR 66; filed May 1, 2003, 12:00 p.m.: 26 IR 2817)

**327 IAC 8-2-31 Maximum contaminant level goals; microbiological contaminants**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2  
**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 31. Maximum contaminant level goals (MCLGs) are zero (0) for the following microbiological contaminants:

- (1) Giardia lamblia.
- (2) Viruses.
- (3) Legionella.
- (4) Total coliforms (including fecal coliforms and Escherichia coli).
- (5) Cryptosporidium.

(Water Pollution Control Board; 327 IAC 8-2-31; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1047; filed May 1, 2003, 12:00 p.m.: 26 IR 2818)

**327 IAC 8-2-32 Alternate analytical techniques**

**Authority:** IC 13-1-3-4; IC 13-7-2-15; IC 13-7-7-5; IC 13-7-14-5  
**Affected:** IC 13-1-3-4; IC 13-7

Sec. 32. With the written permission of the commissioner and concurrence of the administrator, an alternate analytical technique may be employed. An alternate technique shall be accepted only if it is substantially equivalent to the prescribed test in both precision and accuracy as it relates to the determination of compliance with any MCL. The use of the alternate analytical technique shall not decrease the frequency of monitoring required by this rule. (*Water Pollution Control Board; 327 IAC 8-2-32; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1047*)

**327 IAC 8-2-33 Laboratory compliance**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16  
**Affected:** IC 13-18

Sec. 33. (a) For the purpose of determining compliance with this rule, samples may be considered only if they have been analyzed by a laboratory using methods specified in this rule.

(b) Nothing in this rule shall be construed to preclude the commissioner or any duly designated representative of the commissioner from taking samples or from using the results from such samples to determine compliance by a supplier of water with the applicable requirements of this rule. (*Water Pollution Control Board; 327 IAC 8-2-33; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1047; filed Oct 24, 1997, 4:30 p.m.: 21 IR 940; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3978*)

**327 IAC 8-2-34 Maximum contaminant level goals; inorganic contaminants**

**Authority:** IC 13-1-3-4; IC 13-7-2-15; IC 13-7-7-5; IC 13-7-14-5  
**Affected:** IC 13-7

Sec. 34. MCLGs for the following contaminants are as indicated:

<u>Contaminant</u>	<u>MCLG in Milligrams Per Liter</u>
Fluoride	4.0
Asbestos	7 million fibers per liter (longer than 10 micrometers)
Barium	2
Cadmium	0.005
Chromium	0.1
Copper	1.3

Lead	0
Mercury	0.002
Nitrate	10 (as nitrogen)
Nitrite	1 (as nitrogen)
Total nitrate + nitrite	10 (as nitrogen)
Selenium	0.05
Antimony	0.006
Beryllium	0.004
Cyanide (as free cyanide)	0.2
Nickel	0.1
Thallium	0.0005

(*Water Pollution Control Board; 327 IAC 8-2-34; filed Aug 24, 1994, 8:15 a.m.: 18 IR 67*)

**327 IAC 8-2-35 Treatment techniques**

**Authority:** IC 13-1-3-4; IC 13-7-2-15; IC 13-7-7-5; IC 13-7-14-5  
**Affected:** IC 13-7

Sec. 35. (a) The requirements of this section constitute national primary drinking water regulations. These regulations establish treatment techniques in lieu of MCLs for specified contaminants.

(b) Each public water system must certify annually in writing to the commissioner (using third party or manufacturer's certification) that when acrylamide and epichlorohydrin are used in drinking water systems, the combination (or product) of dose and monomer level does not exceed the levels specified as follows:

- (1) Acrylamide equals five-hundredths percent (0.05%) dosed at one (1) part per million or equivalent.
- (2) Epichlorohydrin equals one-hundredth percent (0.01%) dosed at twenty (20) parts per million or equivalent.

(c) Certifications can rely on manufacturers or third parties, as approved by the commissioner. (*Water Pollution Control Board; 327 IAC 8-2-35; filed Aug 24, 1994, 8:15 a.m.: 18 IR 67*)

**327 IAC 8-2-36 General requirements; lead and copper**

**Authority:** IC 13-1-3-4; IC 13-7-2-15; IC 13-7-7-5; IC 13-7-14-5  
**Affected:** IC 13-7

Sec. 36. (a) The requirements of this section and sections 37 through 47 of this rule constitute the national primary drinking water regulations for lead and copper. Unless otherwise indicated, each section applies to community water systems and nontransient noncommunity water systems (hereinafter referred to as

water systems or systems).

(b) This section and sections 37 through 47 of this rule establish a treatment technique that includes requirements for corrosion control treatment, lead service line replacement, and public education. These requirements are triggered, in some cases, by lead and copper action levels measured in samples collected at consumers' taps.

(c) The following are requirements for lead and copper action levels:

(1) The lead action level is exceeded if the concentration of lead in more than ten percent (10%) of tap water samples collected during any monitoring period conducted in accordance with section 37 of this rule is greater than fifteen-thousandths (0.015) milligram per liter (i.e., if the ninetieth percentile lead level is greater than fifteen-thousandths (0.015) milligram per liter).

(2) The copper action level is exceeded if the concentration of copper in more than ten percent (10%) of tap samples collected during any monitoring period conducted in accordance with section 37 of this rule is greater than one and three-tenths (1.3) milligram per liter (i.e., if the ninetieth percentile copper level is greater than one and three-tenths (1.3) milligram per liter).

(3) The ninetieth percentile lead and copper levels shall be computed as follows:

(A) The results of all lead or copper samples taken during a monitoring period shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Each sampling result shall be assigned a number, ascending by single integers beginning with the number one (1) for the sample with the lowest contaminant level. The number assigned to the sample with the highest contaminant level shall be equal to the total number of samples taken.

(B) The number of samples taken during the monitoring period shall be multiplied by nine-tenths (0.9).

(C) The contaminant concentration in the numbered sample yielded by the calculation in clause (B) is the ninetieth percentile contaminant level.

(D) For water systems serving fewer than one hundred (100) people that collect five (5) samples per monitoring period, the ninetieth percentile is computed by taking the average of the highest and second highest concentrations.

(d) The following are requirements for corrosion control treatment:

(1) All water systems shall install and operate optimal corrosion control treatment as defined in section 41 of this rule.

(2) Any water system that complies with the applicable corrosion control treatment requirements specified by

the commissioner under sections 40 and 41 of this rule shall be deemed in compliance with the treatment requirement contained in subdivision (1).

(e) Any system exceeding the lead or copper action level shall implement all applicable source water treatment requirements specified by the state under section 42 of this rule.

(f) Any system exceeding the lead action level after implementation of applicable corrosion control and source water treatment requirements shall complete the lead service line replacement requirements contained in section 43 of this rule.

(g) Any system exceeding the lead action level shall implement the public education requirements contained in section 44 of this rule.

(h) Tap water monitoring for lead and copper, monitoring for water quality parameters, source water monitoring for lead and copper, and analyses of the monitoring results under this subsection shall be completed in compliance with sections 37 through 39 and 45 of this rule.

(i) Systems shall report to the commissioner any information required by the treatment provisions of this subsection and section 46 of this rule.

(j) Systems shall maintain records in accordance with section 47 of this rule.

(k) Failure to comply with the applicable requirements of this section and sections 37 through 47 of this rule shall constitute a violation of the drinking water regulations for lead or copper, or both. (*Water Pollution Control Board; 327 IAC 8-2-36; filed Aug 24, 1994, 8:15 a.m.: 18 IR 67; errata filed Oct 11, 1994, 2:45 p.m.: 18 IR 532*)

### **327 IAC 8-2-37 Monitoring requirements for lead and copper in tap water**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 37. (a) The following are requirements for sample site locations:

(1) By the applicable date of commencement of monitoring under subsection (d)(1), each water system shall complete a materials evaluation of its distribution system in order to identify a pool of targeted sampling sites that meet the requirements of this section and that are sufficiently large to ensure that the water system can collect the number of lead and copper tap samples required in subsection (c). All sites from which first draw samples are collected shall be selected from this pool of targeted sampling sites. Sampling sites may not include faucets that have point-of-use or point-of-entry

treatment devices designated to remove inorganic contaminants.

(2) A water system shall use the information on lead, copper, and galvanized steel that it is required to collect under section 22 of this rule (special monitoring for corrosivity characteristics) when conducting a materials evaluation. When an evaluation of the information collected under section 22(d) of this rule is insufficient to locate the requisite number of lead and copper sampling sites that meet the targeting criteria in subdivisions (3) through (7), the water system shall review the sources of information listed in clauses (A) through (C) in order to identify a sufficient number of sampling sites. In addition, the system shall seek to collect such information, where possible, in the course of its normal operations, such as checking service line materials when reading water meters or performing maintenance activities:

(A) all plumbing codes, permits, and records in the files of the building department which indicate the plumbing materials that are installed within publicly or privately owned structures connected to the distribution system;

(B) all inspections and records of the distribution system that indicate the material composition of the service connections that connect a structure to the distribution system; and

(C) all existing water quality information, which includes the results of all prior analyses of the system or individual structures connected to the system, indicating locations that may be particularly susceptible to high lead or copper concentrations.

(3) The sampling sites selected for a community water system's sampling pool (tier one (1) sampling sites) shall consist of:

(A) single family structures; or

(B) multiple family residences if such residences comprise at least twenty percent (20%) of the structures served by water systems that:

(i) contain:

(AA) copper pipes with lead solder installed after 1982; or

(BB) lead pipes;

(ii) are served by a lead service line; or

(iii) both items (i) and (ii) apply.

(4) Any community water system with insufficient tier one (1) sampling sites shall complete its sampling pool with tier two (2) sampling sites consisting of buildings, including multiple family residences that:

(A) contain:

(i) copper pipes with lead solder installed after 1982; or

(ii) lead pipes;

(B) are served by a lead service line; or

(C) both clauses (A) and (B) apply.

(5) Any community water system with insufficient tier one (1) and tier two (2) sampling sites shall complete its sampling pool with tier three (3) sampling sites consisting of single family structures that contain copper pipes with lead solder installed before 1983. A community water system with insufficient tier one (1), tier two (2), and tier three (3) sampling sites shall complete its sampling pool with representative sites throughout the distribution system. For the purposes of this subdivision, a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system.

(6) The sampling sites selected for a nontransient noncommunity water system (tier one (1) sampling sites) shall consist of buildings that:

(A) contain:

(i) copper pipes with lead solder installed after 1982; or

(ii) lead pipes;

(B) are served by a lead service line; or

(C) both clauses (A) and (B) apply.

(7) A nontransient noncommunity water system with insufficient tier one (1) sites that meet the targeting criteria in subdivision (6) shall complete its sampling pool with sampling sites that contain copper pipes with lead solder installed before 1983. If additional sites are needed to complete the sampling pool, the nontransient noncommunity water system shall use representative sites throughout its distribution system. For the purpose of this subdivision, a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system.

(8) Any water system whose distribution system contains lead service lines shall draw fifty percent (50%) of the samples it collects during each monitoring period from sites that contain lead pipes, or copper pipes with lead solder, and fifty percent (50%) of the samples from sites served by a lead service line. A water system that cannot identify a sufficient number of sampling sites served by a lead service line shall collect first draw samples from all of the sites identified as being served by such lines.

(b) The following are requirements for sample collection methods:

(1) All tap samples for lead and copper collected in accordance with this subsection, with the exception of lead service line samples collected under section 43(c) of this rule and samples collected under subdivision (5), shall be first draw samples.

(2) Each first draw tap sample for lead and copper shall be one (1) liter in volume and have stood motionless in the plumbing system of each sampling site for at least six (6) hours. First draw samples from residential housing shall be collected from the cold water kitchen tap or bathroom sink tap. First draw samples from a nonresidential building shall be one (1) liter in volume and shall be collected at an interior tap from which water is typically drawn for consumption. Nonfirst draw samples collected in lieu of first draw samples pursuant to subdivision (5) shall be one (1) liter in volume and shall be collected at an interior tap from which water is typically drawn for consumption. First draw samples may be collected by the system or the system may allow residents to collect first draw samples after instructing the residents of the sampling procedures specified in this subdivision. To avoid problems of residents handling nitric acid, acidification of first draw samples may be done up to fourteen (14) days after the sample is collected. After acidification to resolubilize the metals, the sample must stand in the original container for the time specified in the EPA-approved method before the sample can be analyzed. If a system allows residents to perform sampling, the system may not challenge, based on alleged errors in sample collection, the accuracy of sampling results.

(3) Each service line sample shall be one (1) liter in volume and have stood motionless in the lead service line for at least six (6) hours. Lead service line samples shall be collected in one (1) of the following three (3) ways:

(A) At the tap after flushing the volume of water between the tap and the lead service line. The volume of water shall be calculated based on the interior diameter and length of the pipe between the tap and the lead service line.

(B) Tapping directly into the lead service line.

(C) If the sampling site is a building constructed as a single family residence, allowing the water to run until there is a significant change in temperature that would be indicative of water that has been standing in the lead service line.

(4) A water system shall collect each first draw tap sample from the same sampling site from which it collected a previous sample. If, for any reason, the water system cannot gain entry to a sampling site in order to collect a follow-up tap sample, the system may collect the follow-up tap sample from another sampling site in its sampling pool as long as the new site meets the same targeting criteria and is within reasonable proximity of the original site.

(5) A nontransient noncommunity water system, or a community water system meeting the criteria of section

44(c)(7)(A) and 44(c)(7)(B) of this rule, that does not have enough taps that can supply first draw samples, as defined in section 1 of this rule, may apply to the commissioner in writing to substitute nonfirst draw samples. Such systems must collect as many first draw samples from appropriate taps as possible and identify sampling times and locations that would likely result in the longest standing time for the remaining sites. The commissioner has the discretion to waive the requirement for prior approval of nonfirst draw sample sites selected by the system by written notification to the system.

(c) Water systems shall collect at least one (1) sample during each monitoring period specified in subsection (d) from the number of sites listed in the second column of the table in this subsection (standard monitoring). A system conducting reduced monitoring under subsection (d)(4) shall collect at least one (1) sample from the number of sites specified in the third column of the table in this subsection during each monitoring period specified in subsection (d)(4). Such reduced monitoring sites shall be representative of the sites required for standard monitoring. The commissioner may specify sampling locations when a system is conducting reduced monitoring.

System Size (Number of People Served)	Number of Sites (Standard Monitoring)	Number of Sites (Reduced Monitoring)
> 100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
<101	5	5

(d) The following are requirements for the timing of monitoring:

(1) For initial tap sampling, the first six (6) month monitoring period for small, medium size, and large systems shall begin on the following dates:

System Size (Number of People Served)	First Six Month Monitoring Period Begins On
> 50,000	January 1, 1992
3,301 to 50,000	July 1, 1992
< 3,301	July 1, 1993

The monitoring requirements are as follows:

(A) All large systems shall monitor during two (2) consecutive six (6) month periods.

(B) All small and medium size systems shall monitor during each six (6) month monitoring period until:

- (i) the system exceeds the lead or copper action level and is therefore required to implement the corrosion control treatment requirements under section 40 of this rule, in which case the system shall continue monitoring in accordance with subdivision (2); or
  - (ii) the system meets the lead and copper action levels during two (2) consecutive six (6) month monitoring periods in which case the system may reduce monitoring in accordance with subdivision (4).
- (2) Tap water monitoring requirements for lead and copper after corrosion control and source water treatment are as follows:
- (A) Any large system that installs optimal corrosion control treatment under STEP FOUR of section 40(d) of this rule shall monitor during two (2) consecutive six (6) month monitoring periods by the date specified in STEP FIVE of section 40(d) of this rule.
  - (B) Any small or medium size system that installs optimal corrosion control treatment under STEP FIVE of section 40(e) of this rule shall monitor during two (2) consecutive six (6) month monitoring periods by the date specified in STEP SIX of section 40(e) of this rule.
  - (C) Any system that installs source water treatment under STEP THREE of section 42(a) of this rule shall monitor during two (2) consecutive six (6) month monitoring periods by the date specified in STEP FOUR of section 42(a) of this rule.
- (3) After the commissioner specifies the values for water quality control parameters under section 41(f) of this rule, the system shall monitor during each subsequent six (6) month monitoring period, with the first monitoring period to begin on the date the commissioner specifies optimal values under section 41(f) of this rule.
- (4) Reduced monitoring requirements shall be as follows:
- (A) A small or medium size water system that meets the lead and copper action levels during each of two (2) consecutive six (6) month monitoring periods may reduce the number of samples in accordance with subsection (c), and reduce the frequency of sampling to once per year.
  - (B) Any water system that maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the commissioner under section 41(f) of this rule during each of two (2) consecutive six (6) month monitoring periods may reduce the frequency of monitoring to once per year and reduce the number of lead and copper samples in accordance with subsection (c) if it receives written approval from the commissioner. The commissioner shall:
    - (i) review monitoring, treatment, and other relevant information submitted by the water system in accordance with section 46 of this rule;
    - (ii) notify the system in writing when the commissioner determines the system is eligible to commence reduced monitoring; and
    - (iii) review and, where appropriate, revise the commissioner's determination when the system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.
  - (C) A small or medium size water system that meets the lead and copper action levels during three (3) consecutive years of monitoring may reduce the frequency of monitoring for lead and copper from annually to once every three (3) years. Any water system that maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the commissioner under section 41(f) of this rule during three (3) consecutive years of monitoring may reduce the frequency of monitoring from annually to once every three (3) years if it receives written approval from the commissioner. The commissioner shall:
    - (i) review monitoring, treatment, and other relevant information submitted by the water system in accordance with section 46 of this rule;
    - (ii) notify the system in writing when the commissioner determines the system is eligible to reduce the frequency of monitoring to once every three (3) years;
    - (iii) review and, where appropriate, revise the determination when the system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.
  - (D) A water system that reduces the number and frequency of sampling shall collect these samples from representative sites included in the pool of targeted sampling sites identified in subsection (a). Systems sampling annually or less frequently shall conduct the lead and copper tap sampling during the months of June, July, August, or September unless the commissioner has approved a different sampling period in accordance with the following:
    - (i) At the commissioner's discretion, a different period for conducting the lead and copper tap sampling may be approved for systems conducting a reduced number of samples. Such a period shall be no longer than four (4) months and must represent a time of normal operation where the highest

levels of lead are most likely to occur. The commissioner shall designate a period that represents a time of normal operation for the system as follows:

(AA) For a nontransient noncommunity water system that does not operate during the months of June through September.

(BB) Where the period of normal operation having the highest levels of lead that are most likely to occur is not known.

(ii) Systems monitoring annually that have been collecting samples during the months of June through September and have received approval from the commissioner to alter their sample collection period pursuant to subsection (a) shall collect their next round of samples during a period that ends no later than twenty-one (21) months after the previous round of sampling.

(iii) Systems monitoring triennially that have been collecting samples during the months of June through September and have received approval from the commissioner to alter their sample collection period pursuant to subsection (a) shall collect their next round of samples during a time period that ends no more than forty-five (45) months after the previous round of sampling. Subsequent rounds of sampling shall be collected annually or triennially as required by this section.

(iv) Small systems with waivers granted pursuant to subsection (g) that have been collecting samples during the months of June through September and have received approval from the commissioner to alter their sample collection period under item (i) must collect their next round of samples before the end of the nine (9) year period.

(E) A water system that demonstrates for two (2) consecutive six (6) month monitoring periods that the tap water lead level computed under section 36(c)(3) of this rule is less than or equal to five-thousandths (0.005) milligram per liter (mg/l) and the tap water copper level computed under section 36(c)(3) of this rule is less than or equal to sixty-five hundredths (0.65) mg/l may reduce the number of samples in accordance with subsection (c) and reduce the frequency of sampling to once every three (3) calendar years.

(F) The following apply when a small or medium size water system subject to reduced monitoring exceeds the lead or copper action level:

(i) A small or medium size water system subject to reduced monitoring that exceeds the lead or copper action level shall resume sampling in accordance with subdivision (3) and collect the number of samples specified for standard monitoring under

subsection (c). Such system shall also conduct water quality parameter monitoring in accordance with section 38(c), 38(d), or 38(e) of this rule, as appropriate, during the monitoring period in which it exceeds the action level. Any water system may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in subsection (c) after it has completed two (2) subsequent consecutive six (6) month rounds of monitoring that meet the criteria of clause (A) or may resume triennial monitoring for lead and copper at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either clause (C) or (E).

(ii) A water system subject to the reduced monitoring frequency that fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the commissioner under section 41(f) of this rule for more than nine (9) days in any six (6) month period specified in section 38(d) of this rule shall conduct tap water sampling for lead and copper at the frequency specified in subdivision (3), collect the number of samples specified for standard monitoring under subsection (c), and shall resume monitoring for water quality parameters in accordance with section 38(d) of this rule. Such a system may resume reduced monitoring for lead and copper at the tap and water quality parameters within the distribution system under the following conditions:

(AA) The system may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in subsection (c) after it has completed two (2) subsequent six (6) month rounds of monitoring that meets the criteria of clause (B) and the system has received written approval from the commissioner that it is appropriate to resume reduced monitoring on an annual frequency.

(BB) The system may resume triennial monitoring for lead and copper at the tap at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either clause (C) or (E) and the system has received written approval from the commissioner that it is appropriate to resume triennial monitoring.

(CC) The system may reduce the number of water quality parameter tap water samples required in accordance with section 38(f)(1) of this rule and the frequency with which it collects such samples in accordance with section 38(f)(2) of this rule. Such a system may not resume

triennial monitoring for water quality parameters at the tap until it demonstrates, in accordance with the requirements of section 38(f)(2) of this rule, that it has requalified for triennial monitoring.

(G) A water system subject to a reduced monitoring frequency under this subdivision that either adds a new source of water or changes any water treatment shall inform the commissioner in writing in accordance with section 46(a)(3) of this rule. The commissioner may require the system to resume sampling in accordance with subdivision (3) and collect the number of samples specified for standard monitoring under subsection (c) or take other appropriate steps such as increased water quality parameter monitoring or reevaluation of its corrosion control treatment given the potentially different water quality considerations.

(e) The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and the commissioner in making any determinations (i.e., calculating the ninetieth percentile lead or copper level) under section 36 of this rule, this section, and sections 38 through 47 of this rule.

(f) A sample invalidated under this subsection does not count toward determining lead or copper ninetieth percentile levels under section 36(c)(3) of this rule or toward meeting the minimum monitoring requirements of subsection (c). The following criteria specify invalidation of samples:

(1) The commissioner may invalidate a lead or copper tap water sample if at least one (1) of the following conditions is met:

(A) The laboratory establishes that improper sample analysis caused erroneous results.

(B) The commissioner determines that the sample was taken from a site that did not meet the site selection criteria of this section.

(C) The sample container was damaged in transit.

(D) There is substantial reason to believe that the sample was subject to tampering.

(2) The system must report the results of all samples to the commissioner and all supporting documentation for samples the system believes should be invalidated.

(3) To invalidate a sample under subdivision (1), the decision and the rationale for the decision must be documented in writing. The commissioner may not invalidate a sample solely on the grounds that a follow-up sample result is higher or lower than the original sample.

(4) The water system must collect replacement samples for any samples invalidated under this section if, after the invalidation of one (1) or more samples the system

has too few samples to meet the minimum requirements of subsection (c). Any such replacement samples must be taken as soon as possible, but no later than twenty (20) days after the date the commissioner invalidates the sample or by the end of the applicable monitoring period, whichever occurs later. Replacement samples taken after the end of the applicable monitoring period shall not also be used to meet the monitoring requirements of a subsequent monitoring period. The replacement samples shall be taken at the same locations as the invalidated samples or, if that is not possible, at locations other than those already used for sampling during the monitoring period.

(g) A small system that meets the criteria of this subsection may apply to the commissioner to reduce the frequency of monitoring for lead and copper under this section to once every nine (9) years for a full waiver if it meets all of the materials criteria specified in subdivision (1) and all of the monitoring criteria specified in subdivision (2). A small system that meets the criteria of subdivisions (1) and (2) only for lead or only for copper may apply to the commissioner for a partial waiver that may reduce the frequency of tap water monitoring for that contaminant only. The following are the criteria for lead and copper waivers:

(1) The system must demonstrate that the distribution system, service lines, and all drinking water supply plumbing, including plumbing conveying drinking water within all residences and buildings connected to the system, are free of lead-containing or copper-containing materials or both, according to the following:

(A) To qualify for a lead waiver, either a full waiver or a waiver of the tap water monitoring requirements, the water system must provide certification and supporting documentation to the commissioner that the system is free of all lead-containing materials as demonstrated by the following:

(i) There are no plastic pipes or plastic service lines that contain lead plasticizers.

(ii) The system is free of lead service lines, lead pipes, lead soldered pipe joints, and leaded brass or bronze alloy fitting and fixtures unless such fittings and fixtures meet the specifications of any standard established pursuant to the Safe Drinking Water Act at 42 U.S.C. 300g-6(e).

(B) To qualify for copper waiver, either a full waiver or a waiver of the tap water monitoring requirements, the water system must provide certification and supporting documentation to the commissioner that the system contains no copper pipes or copper service lines.

(2) The system must have completed at least one (1)

six (6) month round of standard tap water monitoring for lead and copper at sites approved by the commissioner and from the number of sites required by subsection (c) and demonstrate that the ninetieth percentile levels for any and all rounds of monitoring conducted since the system became free of all lead-containing or copper-containing materials or both, as appropriate, meet the following criteria:

(A) To qualify for a full waiver or a lead waiver, the system must demonstrate that the ninetieth percentile lead level does not exceed five-thousandths (0.005) mg/l.

(B) To qualify for a full waiver or a copper waiver, the system must demonstrate that the ninetieth percentile for copper does not exceed sixty-five hundredths (0.65) mg/l.

(3) The commissioner shall notify the system of its waiver determination, in writing, setting forth the basis of its decision and any condition of the waiver. The small system must continue monitoring for lead and copper at the tap as required by subsection (d), as appropriate, until it receives written notification from the commissioner that the waiver has been approved. As a condition of the waiver, the commissioner may require the system to perform specific activities to avoid the risk of lead or copper concentration of concern in tap water, including the following:

(A) Limited monitoring.

(B) Periodic outreach to customers to remind them to avoid installation of materials that might void the waiver.

(4) The monitoring requirements for systems with a full waiver, a lead waiver, or a copper waiver are as follows:

(A) A system with a full waiver shall conduct tap water monitoring for lead and copper in accordance with subsection (d)(4)(D) at the reduced number of sampling sites specified in subsection (c) at least once every nine (9) years and provide the materials certification specified in subdivision (1) for both contaminants along with the monitoring results.

(B) A system with a partial waiver shall conduct tap water monitoring for the waived contaminant in accordance with subsection (d)(4)(D) at the reduced number of sampling sites specified in subsection (c) at least once every nine (9) years and provide the materials certification specified in subdivision (1) pertaining to the waived contaminant along with the monitoring results. Such a system must also continue to monitor for the nonwaived contaminant in accordance with the requirements of subsection (d), as appropriate.

(C) If a system with a full or partial waiver adds a

new source of water or changes any water treatment, the system must notify the commissioner in writing in accordance with section 46(a)(3) of this rule. The commissioner has the authority to require the system to add or modify waiver conditions, if it deems such modifications are necessary to address treatment or source water changes at the system. Conditions may include the following:

(i) Requiring recertification that the system is free of lead-containing or copper-containing materials, or both.

(ii) Requiring an additional round or rounds of monitoring.

(D) If a system with a full or partial waiver becomes aware that it is no longer free of lead-containing or copper-containing materials, or both, as appropriate, as a result of new construction or repairs, the system shall notify the commissioner in writing no later than sixty (60) days after becoming aware of such a change.

(5) If a system continues to satisfy the requirements of subdivision (4), the waiver will be renewed automatically unless any of the conditions listed in this section occurs. A system whose waiver has been revoked may reapply for a waiver at such time as it again meets the appropriate materials and monitoring criteria of subdivisions (1) and (2). The waiver may be revoked if any of the following conditions occur:

(A) A system with a full waiver or a lead waiver no longer satisfies the materials criteria of subdivision (1)(A) or has a ninetieth percentile lead level greater than five-thousandths (0.005) mg/l.

(B) A system with a full waiver or a copper waiver no longer satisfies the materials criteria of subdivision (1)(B) or has a ninetieth percentile copper level greater than sixty-five hundredths (0.65) mg/l.

(C) The commissioner notifies the system, in writing, that the waiver has been revoked, setting forth the basis of its decision.

(6) A system whose full or partial waiver has been revoked by the commissioner is subject to the corrosion control treatment and lead and copper tap water monitoring requirements as follows:

(A) If the system exceeds the lead or copper action level, the system must implement corrosion control treatment in accordance with the deadlines specified in section 40(e) of this rule and any other applicable requirements of section 36 of this rule, this section, and sections 38 through 47 of this rule.

(B) If the system meets both the lead and copper action level, the system must monitor for lead and copper at the tap no less frequently than once every three (3) years using the reduced number of sample

sites specified in subsection (c).

*(Water Pollution Control Board; 327 IAC 8-2-37; filed Aug 24, 1994, 8:15 a.m.: 18 IR 68; errata filed Oct 11, 1994, 2:45 p.m.: 18 IR 532; filed Oct 26, 2001, 4:55 p.m.: 25 IR 764; errata filed Oct 30, 2001, 10:50 a.m.: 25 IR 813; errata filed Feb 22, 2002, 1:59 p.m.: 25 IR 2254)*

### **327 IAC 8-2-38 Monitoring requirements for water quality parameters**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 38. (a) All large water systems and all small and medium size water systems that exceed the lead or copper action level shall monitor water quality parameters in addition to lead and copper in accordance with this section. The requirements of this section are summarized in the table in subsection (b)(2)(A).

(b) General monitoring requirements for water quality parameters shall be as follows:

(1) Requirements for sample collection methods shall be as follows:

(A) Tap samples shall be representative of water quality throughout the distribution system taking into account:

- (i) the number of persons served;
- (ii) the different sources of water;
- (iii) the different treatment methods employed by the system; and
- (iv) seasonal variability.

Tap sampling under this section is not required to be conducted at taps targeted for lead and copper sampling under section 37(a) of this rule. (Note: Systems may find it convenient to conduct tap sampling for water quality parameters at sites used for coliform sampling under section 8 of this rule.)

(B) Except as provided in subsection (d)(3), a system shall collect two (2) samples for each applicable water quality parameter at each entry point to the distribution system during each monitoring period specified in subsection (c). Samples collected at the entry point to the distribution system shall be from locations representative of each source after treatment. If a system draws water from more than one (1) source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions, that is, when water used is representative of all sources being used.

(2) Requirements for the number of samples shall be as follows:

(A) Systems shall collect two (2) tap samples for applicable water quality parameters during each monitoring period specified under subsections (c) through (f) from the number of sites listed in the following table:

System Size (Number of People Served)	Number of Sites for Water Quality Parameters
> 100,000	25
10,001 to 100,000	10
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
< 101	1

(B) Systems shall collect two (2) samples for each applicable water quality parameter at each entry point to the distribution system during each monitoring period specified in subsection (c). During each monitoring period specified in subsections (d) through (f), systems shall collect one (1) sample for each applicable water quality parameter at each entry point to the distribution system.

(c) This subsection governs initial sampling. All large water systems shall measure the applicable water quality parameters as specified in subdivision (1) at taps and at each entry point to the distribution system during each six (6) month monitoring period specified in section 37(d)(1) of this rule. All small and medium size systems shall measure the applicable water quality parameters at the locations specified in subdivision (1) during each six (6) month monitoring period specified in section 37(d)(1) of this rule during which the system exceeds the lead or copper action level. The following are water quality parameters:

(1) Monitoring requirements for water quality parameters at taps are as follows:

- (A) pH.
- (B) Alkalinity.
- (C) Orthophosphate, when an inhibitor containing a phosphate compound is used.
- (D) Silica, when an inhibitor containing a silica compound is used.
- (E) Calcium.
- (F) Conductivity.
- (G) Water temperature.

(2) At each entry point to the distribution system, all of the applicable parameters listed in subdivision (1).

(d) This subsection governs monitoring after installation of corrosion control. Any large system which installs corrosion control treatment under section 40(d)(4) of this rule shall measure the water quality parameters at the locations and frequencies specified in this subsection during each six (6) month monitoring period specified in section 37(d)(2)(A) of this rule. Any small or medium

size system which installs corrosion control treatment shall conduct monitoring during each six (6) month monitoring period specified in section 37(d)(2)(B) of this rule in which the system exceeds the lead or copper action level. The following are water quality parameters:

(1) Monitoring requirements for water quality parameters at taps are two (2) samples for:

- (A) pH;
- (B) alkalinity;
- (C) orthophosphate, when an inhibitor containing a phosphate compound is used;
- (D) silica, when an inhibitor containing a silicate compound is used; and
- (E) calcium, when calcium carbonate stabilization is used as part of corrosion control.

(2) Except as provided in subdivision (3), at each entry point to the distribution system are one (1) sample no less frequently than every two (2) weeks (biweekly) for:

- (A) pH;
- (B) when alkalinity is adjusted as part of optimal corrosion control, a reading of the dosage rate of the chemical used to adjust alkalinity and the alkalinity concentration; and
- (C) when a corrosion inhibitor is used as part of optimal corrosion control, a reading of the dosage rate of the inhibitor used and the concentration of the orthophosphate or silica (whichever is applicable).

(3) A ground water system can limit entry point sampling described in subdivision (2) to those entry points that are representative of water quality and treatment conditions throughout the system. If water from untreated ground water sources mixes with water from treated ground water sources, the system must monitor for water quality parameters both at representative entry points receiving treatment and representative entry points receiving no treatment. Prior to the start of any monitoring under this subdivision, the system shall provide to the commissioner written information identifying the selected entry points and documentation, including information on seasonal variability, sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the system.

(e) This subsection governs monitoring after water quality parameter values for optimal corrosion control are specified. After the commissioner specifies the values for applicable water quality control parameters reflecting optimal corrosion control treatment under section 41(f) of this rule, all large water systems shall measure the applicable water quality parameters in accordance with subsection (d) and determine compliance with the requirements of section 42(g) of this rule every six (6)

months with the first six (6) month period to begin on the date the commissioner specifies the optimal values under section 41(f) of this rule. Any small or medium size system shall conduct such monitoring during each six (6) month period in which the system exceeds the lead or copper action level. For any such small and medium size water system that is subject to a reduced monitoring frequency pursuant to section 37(d)(4) of this rule at the time of the action level exceedance, the end of the applicable six (6) month period shall coincide with the end of the applicable monitoring period under section 37(d)(4) of this rule. Compliance with commissioner-designated optimal water quality parameter values shall be determined as specified under section 41(g) of this rule.

(f) The following are requirements for reduced monitoring:

(1) Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment during each of two (2) consecutive six (6) month monitoring periods under subsection (e) shall continue monitoring at the entry point to the distribution system as specified in subsection (d)(2). Such system may collect two (2) tap samples for applicable water quality parameters from the reduced number of sites shown in the following table during each six (6) month monitoring period:

System Size (Number of People Served)	Reduced Number of Sites of Water Quality Parameters
> 100,000	10
10,001 to 100,000	7
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
< 101	1

(2) This section designates reduced monitoring requirements for water quality parameters as follows:

(A) Any water system that maintains the range of values for water quality parameters reflecting optimal corrosion control treatment specified by the commissioner under section 41(f) of this rule during three (3) consecutive years of monitoring may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in subdivision (1) from once every six (6) months to annually. Any water system that maintains the range of water quality parameters reflecting optimal corrosion control treatment specified by the commissioner under section 41(f) of this rule during three (3) consecutive years of annual monitoring under this subdivision may reduce the

frequency with which it collects the number of tap samples for applicable water quality parameters specified in subdivision (1) from annually to once every three (3) years.

(B) A water system may reduce the frequency of collecting tap samples to every three (3) years for applicable water quality parameters specified in subdivision (1) if the system demonstrates the following during two (2) consecutive monitoring periods:

(i) The systems tap water lead level at the ninetieth percentile is less than or equal to the PQL for lead as specified in section 45(b)(2) of this rule.

(ii) The systems tap water copper level at the ninetieth percentile is less than or equal to sixty-five hundredths (0.65) milligram per liter (mg/l) for copper as specified in section 36(c)(2) of this rule.

(iii) The system has maintained the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the commissioner under section 41(f) of this rule.

(3) A water system that conducts sampling annually shall collect these samples evenly throughout the year so as to reflect seasonal variability.

(4) Any water system subject to the reduced monitoring frequency that fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the commissioner under section 41(f) of this rule for more than nine (9) days in any six (6) month monitoring period shall resume distribution tap water sampling in accordance with the number and frequency requirements in subsection (e). Such a system may resume annual monitoring for water quality parameters number of sites specified in subdivision (2) after it has completed two (2) subsequent consecutive six (6) month rounds of monitoring that meet the criteria of that subsection or may resume triennial monitoring for water quality parameters at the tap at the reduced number of sites after it demonstrates that it meets the criteria of either subdivision (2)(A) or (2)(B).

(g) The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and the commissioner in making any determinations, that is, determining concentrations of water quality parameters under this section or section 41 of this rule. (*Water Pollution Control Board; 327 IAC 8-2-38; filed Aug 24, 1994, 8:15 a.m.: 18 IR 71; errata filed Oct 11, 1994, 2:45 p.m.: 18 IR 532; filed Oct 24, 1997, 4:30 p.m.: 21 IR 940; filed Oct 26, 2001, 4:55 p.m.: 25 IR 770; errata filed Oct 30, 2001, 10:50 a.m.: 25 IR 813; errata filed Feb 22, 2002, 1:59 p.m.: 25 IR 2254*)

### **327 IAC 8-2-39 Monitoring requirements for lead and copper in source water**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 39. (a) Requirements for sample location, collection methods, and number of samples shall be as follows:

(1) A water system that fails to meet the lead or copper action level on the basis of tap samples collected in accordance with section 37 of this rule shall collect lead and copper source water samples in accordance with the following requirements regarding sample location, number of samples, and collection methods:

(A) Ground water systems shall take a minimum of one (1) sample at every entry point to the distribution system which is representative of each well after treatment hereafter called a sampling point. The system shall take one (1) sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(B) Surface water systems, or systems with a combination of ground and surface water sources, shall take a minimum of one (1) sample at every entry point to the distribution system after any application of treatment or in the distribution system at a point which is representative of each source after treatment hereafter called a sampling point. The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(C) If a system draws water from more than one (1) source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions when water representative of all sources is being used.

(D) The commissioner may reduce the total number of samples that must be analyzed by allowing the use of compositing. Compositing of samples must be done by certified laboratory personnel. Composite samples from a maximum of five (5) samples are allowed, provided that if the lead concentration in the composite sample is greater than one-thousandth (0.001) milligram/liter (mg/l) or the copper concentration is greater than one hundred sixty-thousandths (0.160) mg/l, then either of the following shall be done:

(i) A follow-up sample shall be taken and analyzed within fourteen (14) days at each sampling point used in the composite.

(ii) If duplicates of or sufficient quantities from the

original samples from each sampling point used in the composite are available, the system may use these instead of resampling.

(2) Where the results of sampling indicate the maximum permissible source water levels established under section 42(b)(4) of this rule have been exceeded, the commissioner may require that one (1) additional sample be collected as soon as possible after the initial sample was taken (but not to exceed two (2) weeks) at the same sampling point. If a confirmation sample required by the commissioner is taken for lead or copper, then the results of the initial and confirmation sample shall be averaged in determining compliance with the maximum permissible levels specified by the commissioner. Any sample value below the detection limit shall be considered to be zero (0). Any value above the detection limit but below the practical quantitation level shall either be considered as the measured value or be considered one-half (½) the practical quantitation level.

(b) Any system that exceeds the lead or copper action level at the tap shall collect one (1) source water sample from each entry point to the distribution system within six (6) months after the action level has been exceeded.

(c) Any system which installs source water treatment under STEP THREE of section 42(a) of this rule shall collect an additional source water sample from each entry point to the distribution system during two (2) consecutive six (6) month monitoring periods by the deadline specified in STEP FOUR of section 42(a) of this rule.

(d) Requirements for monitoring frequency after the commissioner specifies maximum permissible source water levels or determines that source water treatment is not needed shall be as follows:

(1) A system shall monitor at the frequency specified as follows in cases where the commissioner specifies maximum permissible source water levels under STEP FOUR of section 42(b) of this rule or determines that the system is not required to install source water treatment under STEP TWO of section 42(b) of this rule:

(A) A water system using only ground water shall collect samples once during the three (3) year compliance period (as that term is defined in section 1(10) of this rule) in effect when the applicable determination under this subdivision is made by the commissioner. Such systems shall collect samples once during each subsequent compliance period.

(B) A water system using surface water (or a combination of surface and ground water) shall collect samples once during each year, the first annual monitoring period to begin on the date on which the applicable determination is made under this subdivision.

(2) A system is not required to conduct source water sampling for lead or copper, or both, if the system meets the action level for the specific contaminant in tap water samples during the entire source water sampling period applicable to the system under subdivision (1).

(e) Requirements for reduced monitoring frequency shall be as follows:

(1) A water system using only ground water may reduce the monitoring frequency for lead and copper to once during each nine (9) year compliance cycle (as that term is defined in section 1(9) of this rule) if the system meets one (1) of the following criteria:

(A) The system demonstrates that the finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the commissioner in section 42(b)(4) of this rule during at least three (3) consecutive compliance periods under subsection (d)(1).

(B) The commissioner has determined that source water treatment is not needed and the system demonstrates that, during at least three (3) consecutive compliance periods in which sampling was conducted under subsection (d)(1), the concentration of lead in source water was less than or equal to five-thousandths (0.005) mg/l and the concentration of copper in source water was less than or equal to sixty-five hundredths (0.65) mg/l.

(2) A water system using surface water (or a combination of surface water and ground water) may reduce the monitoring frequency in subsection (d)(1) to once during each nine (9) year compliance cycle (as that term is defined in section 1(9) of this rule) if the system meets one (1) of the following criteria:

(A) The system demonstrates that the finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the commissioner in section 42(b)(4) of this rule for at least three (3) consecutive years.

(B) The commissioner has determined that source water treatment is not needed and the system demonstrates that, during at least three (3) consecutive years, the concentration of lead in source water was less than or equal to five-thousandths (0.005) mg/l and the concentration of copper in source water was less than or equal to sixty-five hundredths (0.65) mg/l.

(3) A water system that uses a new source of water is not eligible for reduced monitoring for lead or copper, or both, until concentrations in samples collected from the new source during three (3) consecutive monitoring

periods are below the maximum permissible lead and copper concentrations specified by the commissioner in STEP FIVE of section 42(a) of this rule.

*(Water Pollution Control Board; 327 IAC 8-2-39; filed Aug 24, 1994, 8:15 a.m.: 18 IR 73; errata filed Oct 11, 1994, 2:45 p.m.: 18 IR 532; filed Oct 26, 2001, 4:55 p.m.: 25 IR 772)*

**327 IAC 8-2-40 Applicability of corrosion control treatment steps to small, medium size, and large water systems**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 40. (a) Systems shall complete the applicable corrosion control treatment requirements described in section 41 of this rule by the deadlines established as follows:

(1) A large system (serving more than fifty thousand (50,000) persons) shall complete the corrosion control treatment steps specified in subsection (d) unless it is deemed to have optimized corrosion control under subsection (b)(2) or (b)(3).

(2) A small system (serving less than or equal to three thousand three hundred (3,300) persons) and a medium size system (serving more than three thousand three hundred (3,300) and less than or equal to fifty thousand (50,000) persons) shall complete the corrosion control treatment steps specified in subsection (e), unless it is deemed to have optimized corrosion control under subsection (b)(1), (b)(2), or (b)(3).

(b) A system is deemed to have optimized corrosion control and is not required to complete the applicable corrosion control treatment steps identified in this section if the system satisfies one (1) of the criteria in this subsection. Any such system deemed to have optimized corrosion control and having treatment in place shall continue to operate and maintain optimal corrosion control treatment and meet any requirements that the commissioner determines appropriate to ensure optimal corrosion control treatment is maintained as follows:

(1) A small or medium size water system is deemed to have optimized corrosion control if the system meets the lead and copper action levels during each of two (2) consecutive six (6) month monitoring periods conducted in accordance with section 37 of this rule.

(2) Any water system may be deemed by the commissioner to have optimized corrosion control treatment if the system demonstrates to the satisfaction of the commissioner that it has conducted activities equivalent to the corrosion control steps applicable to such system under this section. If the commissioner makes

this determination, the commissioner shall provide the system with a written notice explaining the basis for the decision and shall specify water quality control parameters representing optimal corrosion control in accordance with section 41(f) of this rule. A water system deemed to have optimized corrosion control shall operate in compliance with commissioner-designated water quality control parameters in accordance with section 41(g) of this rule and continue to conduct lead and copper tap and water quality parameter sampling in accordance with section 37 of this rule. A system shall provide the following information to the commissioner in order to support a determination under this subsection:

(A) The results of all test samples collected for each of the water quality parameters in section 41(c)(3) of this rule.

(B) A report explaining the test methods used by the water system to evaluate the corrosion control treatments listed in section 42(c)(1) of this rule, the results of all tests conducted, and the basis for the system's selection of optimal corrosion control treatment.

(C) A report explaining how corrosion control has been installed and how it is being maintained to ensure minimal lead and copper concentrations at consumers' taps.

(D) The results of tap water samples collected in accordance with section 37 of this rule at least once every six (6) months for one (1) year after corrosion control has been installed.

(3) Any water system is deemed to have optimized corrosion control if it submits results of tap water monitoring in accordance with section 37 of this rule and source water monitoring conducted in accordance with section 39 of this rule that demonstrates for two (2) consecutive six (6) month periods that the difference between the ninetieth percentile tap water lead level computed under section 36(c)(3) of this rule and the highest source water lead concentration is less than the practical quantitation level for lead specified in section 45(a)(1)(B) of this rule. Criteria for optimal corrosion control are as follows:

(A) A water system whose highest source water lead level is below the method detection limit may also be deemed to have optimized corrosion control if the ninetieth percentile tap water lead level is less than or equal to the practical quantitation level for lead for two (2) consecutive six (6) month monitoring periods.

(B) A water system deemed to have optimized corrosion control shall continue monitoring for lead and copper at the tap no less frequently than once

every three (3) calendar years using the reduced number of sites specified in section 37(c) of this rule and collecting the samples at times and locations specified in section 37(d)(4)(D) of this rule.

(C) A water system deemed to have optimized corrosion control shall notify the commissioner in writing pursuant to section 46(c) of this rule of any change in treatment or the addition of a new source. The commissioner may require any such system to conduct additional monitoring or to take other action the commissioner deems appropriate to ensure that such systems maintain minimal levels of corrosion in the distribution system.

(D) On or after July 12, 2001, a system that is deemed not to have optimized corrosion control shall implement corrosion control treatment pursuant to this section unless it meets the copper action level.

(E) Any system triggered into corrosion control because it is no longer deemed to have optimized corrosion control shall implement corrosion control treatment in accordance with the deadlines in subsection (e). Any such large system shall adhere to the schedule specified for medium size systems with the time periods for completing each step being triggered by the date the system is no longer deemed to have optimized corrosion control.

(c) Any small or medium size system that is required to complete the corrosion control steps due to its exceeding the lead or copper action level may cease completing the treatment steps whenever the system meets both action levels during each of two (2) consecutive monitoring periods conducted under section 37 of this rule and submits the results to the commissioner. If any such water system thereafter exceeds the lead or copper action level during any monitoring period, the system (or the commissioner, as the case may be) shall recommence completion of the applicable treatment steps, beginning with the first treatment step which was not previously completed in its entirety. The commissioner may require a system to repeat treatment steps previously completed by the system where it has been determined by the commissioner that this is necessary to implement properly the treatment requirements of this section. The commissioner shall notify the system in writing of such a determination and explain the basis for the decision. The requirement for any small or medium size water system to implement corrosion control treatment steps in accordance with subsection (e) (including systems deemed to have optimized corrosion control under subsection (b)(1)) is triggered whenever any small or medium size water system exceeds the lead or copper action level.

(d) Except as provided in subsection (b)(2) and (b)(3),

large systems shall complete the following corrosion control treatment steps (described in the referenced portions of sections 37, 38, and 41 of this rule) by the indicated dates:

STEP ONE: The system shall conduct initial monitoring (as required by sections 37(d)(1) and 38(c) of this rule) during two (2) consecutive six (6) month monitoring periods by January 1, 1993.

STEP TWO: The system shall complete corrosion control studies (as required by section 41(c) of this rule) by July 1, 1994.

STEP THREE: The commissioner shall designate optimal corrosion control treatment (as required by section 41(d) of this rule) by January 1, 1995.

STEP FOUR: The system shall install optimal corrosion control treatment (as required by section 41(e) of this rule) by January 1, 1997.

STEP FIVE: The system shall complete follow-up sampling (as required by sections 37(e) and 38(d) of this rule) by January 1, 1998.

STEP SIX: The commissioner shall review installation of treatment and designate optimal water quality control parameters (as required by section 41(f) of this rule) by July 1, 1998.

STEP SEVEN: The system shall operate in compliance with the optimal water quality control parameters specified by the commissioner (as required by section 41(g) of this rule) and continue to conduct tap sampling (as required by sections 37(d)(3) and 38(e) of this rule).

(e) Except as provided in subsection (b), small and medium size systems shall complete the following corrosion control treatment steps by the indicated time periods:

STEP ONE: The system shall conduct initial tap sampling until the system either exceeds the lead and copper action level or becomes eligible for reduced monitoring under section 37(d)(4) of this rule. A system exceeding the lead or copper action level shall recommend optimal corrosion control treatment within six (6) months after it exceeds one (1) of the action levels.

STEP TWO: Within twelve (12) months after a system exceeds the lead or copper action level, the commissioner may require the system to perform corrosion control studies. If the commissioner does not require the system to perform such studies, optimal corrosion control treatment shall be specified by the commissioner within the following time frames:

(A) For medium size systems, within eighteen (18) months after such system exceeds the lead or copper action level.

(B) For small systems, within twenty-four (24)

months after such system exceeds the lead or copper action level.

STEP THREE: If the commissioner requires a system to perform corrosion control studies under STEP TWO, the system shall complete the studies within eighteen (18) months after the commissioner requires that such studies be conducted.

STEP FOUR: If the system has performed corrosion control studies under STEP TWO, the commissioner shall designate optimal corrosion control treatment within six (6) months after completion of STEP THREE.

STEP FIVE: The system shall install optimal corrosion control treatment within twenty-four (24) months after the commissioner designates optimal corrosion control treatment.

STEP SIX: The system shall complete follow-up sampling within thirty-six (36) months after the commissioner designates optimal corrosion control treatment.

STEP SEVEN: The commissioner shall review the system's installation of treatment and designate optimal water quality control parameters within six (6) months after completion of STEP SIX.

STEP EIGHT: The system shall operate in compliance with the optimal water quality control parameters designated by the commissioner and continue to conduct tap sampling.

*(Water Pollution Control Board; 327 IAC 8-2-40; filed Aug 24, 1994, 8:15 a.m.: 18 IR 74; filed Oct 24, 1997, 4:30 p.m.: 21 IR 942; filed Oct 26, 2001, 4:55 p.m.: 25 IR 774; errata filed Feb 22, 2002, 1:59 p.m.: 25 IR 2254)*

### **327 IAC 8-2-41 Corrosion control treatment**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 41. (a) Each system shall complete the corrosion control treatment requirements described in this section that are applicable to such system under section 40 of this rule. Based upon the results of lead and copper tap monitoring and water quality parameter monitoring, small and medium size water systems exceeding the lead or copper action level shall recommend installation of one (1) or more of the corrosion control treatments listed in subsection (c)(1) that the system believes constitutes optimal corrosion control for that system. The commissioner may require the system to conduct additional water quality parameter monitoring in accordance with section 38(c) of this rule to assist the commissioner in reviewing the system's recommendation.

(b) The commissioner may require any small or

medium size system that exceeds the lead or copper action level to perform corrosion control studies under subsection (c) to identify optimal corrosion control treatment for the system.

(c) Requirements for the performance of corrosion control studies shall be as follows:

(1) Any public water system performing corrosion control studies shall evaluate the effectiveness of each of the following treatments, and, if appropriate, combinations of the following treatments to identify the optimal corrosion control treatment for that system:

(A) Alkalinity and pH adjustment.

(B) Calcium hardness adjustment.

(C) The addition of a phosphate or silicate based corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration in all test tap samples.

(2) The water system shall evaluate each of the corrosion control treatments using either pipe rig/loop tests, metal coupon tests, partial-system tests, or analyses based on analogous treatments with other systems of similar size, water chemistry, and distribution system configuration.

(3) The water system shall measure the following water quality parameters in any tests conducted under subdivision (2) before and after evaluating the corrosion control treatments listed in subdivision (1):

(A) Lead.

(B) Copper.

(C) pH.

(D) Alkalinity.

(E) Calcium.

(F) Conductivity.

(G) Orthophosphate (when an inhibitor containing a phosphate compound is used).

(H) Silicate (when an inhibitor containing a silicate compound is used).

(I) Water temperature.

(4) The water system shall identify all chemical or physical constraints that limit or prohibit the use of a particular corrosion control treatment and document such constraints with at least one (1) of the following:

(A) Data and documentation showing that a particular corrosion control treatment has adversely affected other water treatment processes when used by another water system with comparable water quality and characteristics.

(B) Data and documentation demonstrating that a water system has previously attempted to evaluate a particular corrosion control treatment and has found the treatment is ineffective or adversely affects other water quality treatment processes, or both.

(5) The water system shall evaluate the effect of the

chemicals used for corrosion control treatment on other water quality treatment processes.

(6) On the basis of an analysis of the data generated during each evaluation, the water system shall recommend to the commissioner in writing the treatment option that the corrosion control studies indicate constitutes optimal corrosion control treatment for that system. The water system shall provide a rationale for its recommendation along with all supporting documentation specified in subdivisions (1) through (5).

(d) Requirements for the designation of optimal corrosion control treatment shall be as follows:

(1) Based upon consideration of available information including, where applicable, studies performed under subsection (c) and a system's recommended treatment alternative, the commissioner shall either approve the corrosion control treatment option recommended by the system or designate alternative corrosion control treatments from among those listed in subsection (c)(1). When designating optimal treatment, the commissioner shall consider the effects that additional corrosion control treatment will have on water quality parameters and on other water quality treatment processes.

(2) The commissioner shall notify the system of its decision on optimal corrosion control treatment in writing and explain the basis for this determination. If the commissioner requests additional information to aid the review, the water system shall provide the information.

(e) Each system shall properly install and operate throughout its distribution system the optimal corrosion control treatment designated by the commissioner under subsection (d).

(f) The commissioner shall evaluate the results of all lead and copper tap samples and water quality parameter samples submitted by the water system and determine whether the system has properly installed and operated the optimal corrosion control treatment designated by the commissioner in subsection (d). Upon reviewing the results of tap water and water quality parameter monitoring by the system, both before and after the system installs optimal corrosion control treatment, the commissioner shall designate the following:

(1) A minimum value or range of values for pH measured at each entry point to the distribution system.

(2) A minimum pH value, measured in all tap samples. Such value shall be equal to or greater than seven (7.0) unless the commissioner determines that meeting a pH level of seven (7.0) is not technologically feasible or is not necessary for the system to optimize corrosion control.

(3) If a corrosion inhibitor is used, a minimum concen-

tration or a range of concentrations for the inhibitor, measured at each entry point to the distribution system and in all tap samples, that the commissioner determines is necessary to form a passivating film on the interior walls of the pipes of the distribution system.

(4) If alkalinity is adjusted as part of optimal corrosion control treatment, a minimum concentration or a range of concentrations for alkalinity measured at each entry point to the distribution system and in all tap samples.

(5) If calcium carbonate stabilization is used as part of corrosion control, a minimum concentration or a range of concentrations for calcium measured in all tap samples.

The values for the applicable water quality control parameters listed in this subsection shall be those the commissioner determines to reflect optimal corrosion control treatment for the system. The commissioner may designate values for additional water quality control parameters determined by the commissioner to reflect optimal corrosion control for the system. The commissioner shall notify the system in writing of these determinations and explain the basis for the decisions.

(g) All systems optimizing corrosion control shall continue to operate and maintain optimal corrosion control treatment, including maintaining water quality parameter values at or above minimum values or within ranges designated by the commissioner under subsection (f) in all samples collected under section 38(d) through 38(f) of this rule. Compliance with the requirements shall be determined every six (6) months, as specified in section 38(d) of this rule. A water system is out of compliance with the requirements for a six (6) month period if it has excursions for any commissioner-specified parameter for more than nine (9) days during the period. An excursion occurs whenever the daily value for one (1) or more of the water quality parameters measured at a sampling location is below the minimum value or outside the range designated by the commissioner. The commissioner may delete results of obvious sampling errors from this calculation. Daily values are calculated as follows:

(1) On days when more than one (1) measurement for the water quality parameter is collected at the sampling location, the daily value shall be the average of all results collected during the day regardless of whether they are collected through continuous monitoring, grab sampling, or a combination of both.

(2) On days when only one (1) measurement for the water quality parameter is collected at the sampling location, the daily value shall be the results of that measurement.

(3) On days when no measurement is collected for the water quality parameter at the sampling location, the

daily value shall be the daily value calculated on the most recent day on which the water quality parameter was measured at the sample site.

(h) Upon its own initiative or in response to a request by a water system or other interested party, the commissioner may modify its determination of the optimal corrosion control treatment under subsection (d) or optimal water quality control parameters under subsection (f). A request for modification by a system or other interested party shall be in writing, explain why the modification is appropriate, and provide supporting documentation. The commissioner may modify the determination where the commissioner concludes that such change is necessary to ensure that the system continues to optimize corrosion control treatment. A revised determination shall be made in writing, set forth the new treatment requirements, explain the basis for the commissioner's decision, and provide an implementation schedule for completing the treatment modifications. (*Water Pollution Control Board; 327 IAC 8-2-41; filed Aug 24, 1994, 8:15 a.m.: 18 IR 75; filed Oct 26, 2001, 4:55 p.m.: 25 IR 776*)

### **327 IAC 8-2-42 Source water treatment requirements**

**Authority:** IC 13-1-3-4; IC 13-7-2-15; IC 13-7-7-5; IC 13-7-14-5  
**Affected:** IC 13-7

Sec. 42. (a) Systems shall complete the applicable source water monitoring and treatment requirements (described in the referenced portions of subsection (b), and in sections 37 and 39 of this rule) by the following deadlines:

STEP ONE: A system exceeding the lead or copper action level shall complete lead and copper source water monitoring (as required by section 39(b) of this rule) and make a treatment recommendation to the commissioner (as required by subsection (b)(1)) within six (6) months after exceeding the lead or copper action level.

STEP TWO: The commissioner shall make a determination regarding source water treatment (as required by subsection (b)(2)) within six (6) months after submission of monitoring results under STEP ONE.

STEP THREE: If the commissioner requires installation of source water treatment, the system shall install the treatment (as required by subsection (b)(3)) within twenty-four (24) months after completion of STEP TWO.

STEP FOUR: The system shall complete follow-up tap water monitoring (as required by section 37(d)(2) of this rule) and source water monitoring (as required by section 39(c) of this rule) within thirty-six (36) months

after completion of STEP TWO.

STEP FIVE: The commissioner shall review the system's installation and operation of source water treatment and specify maximum permissible source water levels (as required by subsection (b)(4)) within six (6) months after completion of STEP FOUR.

STEP SIX: The system shall operate in compliance with the maximum permissible lead and copper source water levels (as required by subsection (b)(4)) specified by the commissioner and continue source water monitoring (as required by section 39(d) of this rule).

(b) Description of source water treatment requirements shall be as follows:

(1) Any system which exceeds the lead or copper action level shall recommend in writing to the commissioner the installation and operation of one (1) of the source water treatments listed in subdivision (2). A system may recommend that no treatment be installed based upon a demonstration that source water treatment is not necessary to minimize lead and copper levels at users' taps.

(2) The commissioner shall complete an evaluation of the results of all source water samples submitted by the water system to determine whether source water treatment is necessary to minimize lead or copper levels in water delivered to users' taps. If the commissioner determines that treatment is needed, the commissioner shall either require installation and operation of the source water treatment recommended by the system (if any) or require the installation and operation of another source water treatment from among the following:

- (A) Ion exchange.
- (B) Reverse osmosis.
- (C) Lime softening.
- (D) Coagulation/filtration.

If the commissioner requests additional information to aid in the review, the water system shall provide the information by the date specified by the commissioner in the request. The commissioner shall notify the system in writing of the determination and set forth the basis for the decision.

(3) Each system shall properly install and operate the source water treatment designated by the commissioner under subdivision (2).

(4) The commissioner shall review the source water samples taken by the water system both before and after the system installs source water treatment, and determine whether the system has properly installed and operated the source water treatment designated by the commissioner. Based upon the review, the commissioner shall designate the maximum permissible lead and copper concentrations for finished water entering

the distribution system. Such levels shall reflect the contaminant removal capability of the treatment properly operated and maintained. The commissioner shall notify the system in writing and explain the basis for the decision.

(5) Each water system shall maintain lead and copper levels below the maximum permissible concentrations designated by the commissioner at each sampling point monitored in accordance with section 39 of this rule. The system is out of compliance with this subdivision if the level of lead or copper at any sampling point is greater than the maximum permissible concentration designated by the commissioner.

(6) Upon its own initiative or in response to a request by a water system or other interested party, the commissioner may modify the determination of the source water treatment under subdivision (2), or maximum permissible lead and copper concentrations for finished water entering the distribution system under subdivision (4). A request for modification by a system or other interested party shall be in writing, explain why the modification is appropriate, and provide supporting documentation. The commissioner may modify the determination where the commissioner concludes that such change is necessary to ensure that the system continues to minimize lead and copper concentrations in source water. A revised determination shall be made in writing, setting forth the new treatment requirements, explaining the basis for the decision, and providing an implementation schedule for completing the treatment modifications.

*(Water Pollution Control Board; 327 IAC 8-2-42; filed Aug 24, 1994, 8:15 a.m.: 18 IR 77)*

### **327 IAC 8-2-43 Lead service line replacement**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 43. (a) Systems that fail to meet the lead action level in tap samples taken under section 37(d)(2) of this rule, after installing corrosion control treatment or source water treatment, or both (whichever sampling occurs later), shall replace lead service lines in accordance with the requirements of this section. If a system is in violation of section 40 or 42 of this rule for failure to install source water or corrosion control treatment, the commissioner may require the system to commence lead service line replacement under this section after the date by which the system was required to conduct monitoring under section 37(d)(2) of this rule has passed.

(b) A system shall replace annually at least seven percent (7%) of the initial number of lead service lines in

its distribution system. The initial number of lead service lines is the number of lead service lines in place at the time the replacement program begins. The system shall identify the initial number of lead service lines in its distribution system, including an identification of the portion or portions owned by the system, based upon a materials evaluation, including the evaluation required under section 37(a) of this rule and relevant legal authorities, for example, to contracts and local ordinances, regarding the portion owned by the system. The first year of lead service line replacement shall begin on the date the action level was exceeded in tap sampling referenced in subsection (a).

(c) A system is not required to replace an individual lead service line if the lead concentration in all service line samples from that line, taken under section 37(b)(3) of this rule, is less than or equal to fifteen-thousandths (0.015) milligram per liter.

(d) A water system shall replace that portion of the lead service line that it owns. In cases where the system does not own the entire lead service line, the system shall notify the owner of the line, or the owner's authorized agent, that the system will replace the portion of the service line that it owns and shall offer to replace the owner's portion of the line. A system is not required to bear the cost of replacing the privately-owned portion of the line, nor is it required to replace the privately-owned portion of the line where the owner chooses not to pay the cost of replacing the privately-owned portion of the line, or where replacing the privately-owned portion of the line would be precluded by state, local, or common law. A water system that does not replace the entire length of the service line also shall complete the following:

(1) At least forty-five (45) days prior to commencing with the partial replacement of a lead service line, the water system shall provide notice to the resident or residents of all buildings served by the line explaining that they may experience a temporary increase of lead levels in their drinking water, along with guidance on measures consumers can take to minimize their exposure to lead. The commissioner may allow the water system to provide notice less than forty-five (45) days prior to commencing partial lead service line replacement where such replacement is in conduction with emergency repairs. In addition, the water system shall inform the resident or residents served by the line that the system will, at the system's expense, collect a sample from each partially-replaced lead service line that is representative of the water in the service line for analysis of lead content, as prescribed under section 37(b)(3) of this rule, within seventy-two (72) hours after the completion of the partial replacement of the

service line. The system shall collect the sample and report the results of the analysis to the owner and the resident or residents served by the line within three (3) business days of receiving the results. Mailed notices postmarked within three (3) business days of receiving the result shall be considered on time.

(2) The water system shall provide the information required by this subsection to the residents of individual dwellings by mail or other methods approved by the commissioner. In instances where multifamily dwellings are served by the line, the water system shall have the option to post the information at a conspicuous location.

(e) The commissioner may require a system to replace lead service lines on a shorter schedule than that required by this section, taking into account the number of lead service lines in the system, where a shorter replacement schedule is feasible. The commissioner shall make this determination in writing and notify the system of the determination within six (6) months after the system is triggered into lead service line replacement based on monitoring referenced in subsection (a).

(f) Any system may cease replacing lead service lines whenever first draw samples collected under section 37(d)(3) of this rule meet the lead action level during each of two (2) consecutive monitoring periods and the system submits the results to the commissioner. If the lead tap samples in any such water system thereafter exceeds the lead action level, the system shall recommence replacing lead service lines under subsection (b).

(g) To demonstrate compliance with subsections (a) through (d), a system shall report to the commissioner the information specified in section 46(e) of this rule. (*Water Pollution Control Board; 327 IAC 8-2-43; filed Aug 24, 1994, 8:15 a.m.; 18 IR 78; filed Oct 24, 1997, 4:30 p.m.; 21 IR 944; filed Oct 26, 2001, 4:55 p.m.; 25 IR 778*)

### **327 IAC 8-2-44 Public education and supplemental monitoring; lead and copper**

**Authority:** IC 13-1-3-4; IC 13-7-2-15; IC 13-7-7-5; IC 13-7-14-5  
**Affected:** IC 13-7

Sec. 44. (a) A water system that exceeds the lead action level based on tap water samples collected in accordance with section 37 of this rule shall deliver the public education materials contained in the following requirements and subsection (b) in accordance with the requirements in subsection (c):

(1) A community water system shall include the text as established in this subdivision in all the printed materials it distributes through its lead public education program. A system may delete information pertaining to lead service lines, upon approval of the commis-

sioner, if no lead service lines exist anywhere in the water system service area. Public education language at clause (D)(ii)(EE) and (D)(iv)(BB) may be modified regarding building permit record availability and consumer access to these records, if approved by the commissioner. A system may also continue to use preprinted public education materials that meet previous versions of this rule. Any additional information presented by a system shall be consistent with the following information and be in plain English that can be understood by lay persons:

(A) The Indiana department of environmental management (IDEM) and (insert name of water supplier) are concerned about lead in your drinking water. Although most homes have very low levels of lead in their drinking water, some homes in the community have lead levels above the action level of fifteen (15) parts per billion or fifteen-thousandths (0.015) milligram of lead per liter of water. Under state law, we are required to have a program in place to minimize lead in your drinking water by (insert date when corrosion control will be completed for your system). This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace each lead service line that we control if the line contributes lead concentrations of more than fifteen (15) parts per billion after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation, please give us a call at (insert water systems phone number). This brochure explains the simple steps you can take to protect you and your family by reducing your exposure to lead in drinking water.

(B) Lead is a common metal found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery, porcelain, and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells, and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development in growing bodies. In addition, a child at play often comes in contact with sources of lead contamination, like dirt and dust, that rarely affect an adult. It is important to wash children's hands and toys often, and try to make sure they only put food in their mouths.

(C) The following information is known about lead in drinking water:

(i) Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are mixed with water. The EPA estimates that drinking water can make up twenty percent (20%) or more of a person's total exposure to lead.

(ii) Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome plated brass faucets, and in some cases, pipes made of lead that connect your house to the water main (service lines). In 1986, Congress banned the use of lead solder containing greater than two-tenths percent (0.2%) lead and restricted the lead content of faucets, pipes, and other plumbing material to eight percent (8%).

(iii) When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon after returning from work or school, can contain fairly high levels of lead.

(D) The following are steps you can take in the home to reduce exposure to lead in drinking water:

(i) Despite our best efforts mentioned earlier to control water corrosivity and remove lead from the water supply, lead levels in some homes or buildings can be high. To find out whether you need to take action in your own home, have your drinking water tested to determine if it contains high concentrations of lead. Testing the water is essential because you cannot see, taste, or smell lead in drinking water. Some local laboratories that can provide this service are listed at the end of this booklet. For more information on having your water tested, please call (insert phone number of water system).

(ii) If a water test indicates that the drinking water drawn from a tap in your home contains lead above fifteen (15) parts per billion, then you should take the following precautions:

(AA) Let the water run from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six (6) hours. The longer the water resides in your

home's plumbing, the more lead it may contain. Flushing the tap means running the cold water faucet until the water gets noticeably colder, usually about fifteen (15) to thirty (30) seconds. If your house has a lead service line to the water main, you may have to flush the water for a longer time, perhaps one (1) minute, before drinking. Although toilet flushing or showering flushes water through a portion of your home's plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. It usually uses less than one (1) or two (2) gallons of water and costs less than (insert a cost estimate based on two (2) times a day for thirty (30) days) per month. To conserve water, fill a couple of bottles for drinking water after flushing the tap, and whenever possible use the first flush water to wash the dishes or water the plants. If you live in a high rise building, letting the water flow before using it may not work to lessen your risk from lead. The plumbing systems have more and sometimes longer pipes than in smaller buildings. Ask your landlord for help in finding the source of lead and for advice on reducing the lead level.

(BB) Try not to cook with or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw it from the cold tap and heat it on the stove.

(CC) Remove loose lead solder and debris from the plumbing materials in newly constructed homes, or homes where the plumbing has been recently replaced, by removing the faucet strainers from all taps and running the water for three (3) to five (5) minutes. Thereafter, periodically remove the strainers and flush out any debris that has accumulated over time.

(DD) If your copper pipes are joined with lead solder that has been installed illegally since it was banned in 1986, contact the plumber who did the work and request that he or she replace the solder with lead-free solder. Lead solder looks dull gray, and when scratched with a key looks shiny. In addition, notify the Indiana department of environmental management about the violation.

(EE) Determine whether the service line that connects your home or apartment to the water main is made of lead. The best way to determine if your service line is made of lead is by either

hiring a licensed plumber to inspect the line or by contacting the plumbing contractor who installed the line. You can identify the plumbing contractor by checking the city's record of building permits which should be kept in the files of (insert the department that handles building permits). A licensed plumber can, at the same time, check to see if your home's plumbing contains lead solder, lead pipes, or pipe fittings that contain lead. The public water system that delivers the water to your home should also maintain records of the materials located in the distribution system. If the service line that connects your dwelling to the water main contributes more than fifteen (15) parts per billion to drinking water, after our comprehensive treatment program is in place, we are required to replace the line. If the line is only partially owned by the (insert name of the water system that owns the line), we are required to provide the owner of the privately-owned portion of the line with information on how to replace the privately-owned portion of the service line, and offer to replace that portion of the line at the owner's expense. If we replace only the portion of the line that we own, we are also required to notify you in advance and provide you with information on the steps you can take to minimize exposure to any temporary increase in lead levels that may result from the partial replacement, to take a follow-up sample within seventy-two (72) hours of the partial replacement, and to mail or otherwise provide you with the results of that sample within three (3) business days of receiving the results. Acceptable replacement alternatives include copper, steel, iron, and plastic pipes.

(FF) Have an electrician check your wiring. If grounding wires from the electrical system are attached to your pipes, corrosion may be greater. Check with a licensed electrician or your local electrical code to determine whether your wiring can be grounded elsewhere. DO NOT attempt to change the wiring yourself, because improper wiring can cause electrical shock and fire hazards.

(iii) The steps described above will reduce the lead concentrations in your drinking water. However, if a water test indicates that the drinking water coming from your tap contains lead in excess of fifteen (15) parts per billion after flushing, or after we have completed our actions to minimize lead levels, then you may want to take the following

additional measures:

(AA) Purchase or lease a home treatment device. Home treatment devices are limited in that each unit treats only the water that flows from the faucet to which it is connected, and all the devices require periodic maintenance and replacement. Devices such as reverse osmosis systems or distillers can effectively remove lead from your drinking water. Some activated carbon filters may reduce lead levels at the tap, however, all lead reduction claims should be investigated. Be sure to check the actual performance of a specific home treatment device before and after installing the unit.

(BB) Purchase bottled water for drinking and cooking.

(iv) You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. State and local government agencies that can be contacted include:

(AA) (insert the name of city or county department of public utilities) at (insert phone number) can provide you with information about your community's water supply and a list of local laboratories that have been certified by the state for testing water quality;

(BB) (insert the name of city or county department that issues building permits) at (insert phone number) can provide you with information about building permit records that should contain the names of plumbing contractors that plumbed your home; and

(CC) (insert name of the state department of public health) at (insert phone number) or the (insert the name of the city or county health department) at (insert phone number) can provide you with information about the health effects of lead and how you can have your child's blood tested.

(v) The following is a list of some state approved laboratories in your area that you can call to have your water tested for lead. (Insert names and addresses of at least two (2) laboratories.)

(2) A nontransient noncommunity water system shall either include the text specified in subdivision (1) or shall include the following text in all of the printed materials it distributes through its public education program. Water systems may delete information pertaining to lead service lines upon approval of the commissioner if no lead service lines exist anywhere in the water system service area. Any additional informa

tion presented by a system shall be in plain English that can be easily understood and is consistent with the following information:

(A) The Indiana department of environmental management (IDEM) and (insert name of water supplier) are concerned about lead in your drinking water. Some drinking water samples taken from this facility have lead levels above the action level of fifteen (15) parts per billion (ppb), or fifteen-thousandths (0.015) milligram per liter (mg/l). Under state law, we are required to have a program in place to minimize lead in your drinking water by (insert date when corrosion control will be completed for your system). This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace the portion of each lead service line that we own if the line contributes more than fifteen (15) ppb after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation, please give us a call at (insert water system's phone number). This brochure explains the simple steps you can take to protect yourself by reducing your exposure to lead in drinking water.

(B) Lead is found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery, porcelain, and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells, and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that would not hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination, like dirt and dust, that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.

(C) The following explains lead contamination in drinking water:

(i) Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are mixed with water. The EPA estimates that drinking water can make up twenty percent (20%) or more of a person's total exposure to lead.

(ii) Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water

supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome-plated brass faucets, and in some cases, pipes made of lead that connect houses and buildings to water mains (service lines). In 1986, Congress banned the use of lead solder containing greater than two-tenths percent (0.2%) lead, and restricted the lead content of faucets, pipes, and other plumbing materials to eight and zero-tenths percent (8.0%).

(iii) When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first draw water drawn from the tap in the morning, or later in the afternoon if the water has not been used all day, can contain fairly high levels of lead.

(D) The following are steps you can take to reduce exposure to lead in drinking water:

(i) Let the water run from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six (6) hours. The longer water resides in plumbing the more lead it may contain. Flushing the tap means running the cold water faucet for about fifteen (15) to thirty (30) seconds. Although toilet flushing or showering flushes water through a portion of the plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your health. It usually uses less than one (1) gallon of water.

(ii) Do not cook with or drink water from the hot water tap. Hot water can dissolve lead more quickly than cold water. If you need hot water, draw water from the cold water tap and then heat it.

(iii) The steps described in items (i) and (ii) will reduce the lead concentrations in your drinking water. However, if you are still concerned, you may wish to use bottled water for drinking and cooking.

(iv) You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. State and local government agencies that can be contacted include:

(AA) (insert name or title of facility official if appropriate) at (insert phone number) can provide you with information about your facility's

water supply; and

(BB) (insert name or the Indiana state department of health) at (insert phone number) or (insert the name of the city or county health department) at (insert phone number) can provide you with information about the health effects of lead.

(b) A water system shall include the following information in all public service announcements submitted under its lead public education program to television and radio stations for broadcasting:

(1) Why should everyone want to know the facts about lead and drinking water? Because unhealthy amounts of lead can enter drinking water through the plumbing in your home. That's why I urge you to do what I did. I had my water tested for (insert free or cost in dollars per sample). You can contact the (insert the name of the city or water system) for information on testing and on simple ways to reduce your exposure to lead in drinking water.

(2) To have your water tested for lead or to get more information about this public health concern, please call (insert the phone number of the city or water system).

(c) Requirements for delivery of a public education program shall be as follows:

(1) In communities where a significant portion of the population speaks a language other than English, public education materials shall be communicated in the appropriate language.

(2) A community water system that exceeds the lead action level on the basis of tap water samples collected in accordance with section 37 of this rule, and that is not already repeating public education pursuant to subdivision (3), (7), or (8), shall, within sixty (60) days, do the following:

(A) Insert notices in each customer's water utility bill containing the information in subsection (a)(1), along with the following alert on the water bill itself in large print: "SOME HOMES IN THIS COMMUNITY HAVE ELEVATED LEAD LEVELS IN THEIR DRINKING WATER. LEAD CAN POSE A SIGNIFICANT RISK TO YOUR HEALTH. PLEASE READ THE ENCLOSED NOTICE FOR FURTHER INFORMATION." A community water system that has a billing cycle that does not include a billing within sixty (60) days of exceeding the action level, or that cannot insert information in the water utility bill without making major changes to its billing system, may use a separate mailing to deliver the information in subsection (a)(1) as long as the information is delivered to each customer within sixty (60) days of exceeding the action level. Such

water systems shall also include the alert language specified in this clause.

(B) Submit the information in subsection (a)(1) to the editorial department or departments of the major daily and weekly newspapers circulated throughout the community.

(C) Deliver pamphlets or brochures, or both, that contain the public education materials in subsection (a)(1)(B) and (a)(1)(D) to facilities and organizations, including the following:

- (i) Public schools and local school boards.
- (ii) City or county health department.
- (iii) Women, infants, and children and head start programs, whenever available.
- (iv) Public or private hospitals and clinics.
- (v) Pediatricians.
- (vi) Family planning clinics.
- (vii) Local welfare agencies.

(D) Submit the public service announcement in subsection (b) to at least five (5) of the radio and television stations with the largest audiences that broadcast to the community served by the water system.

(3) A community water supply system shall repeat the tasks contained in subdivision (2)(A) through (2)(C) every twelve (12) months, and the tasks contained in subdivision (2)(D) every six (6) months for as long as the system exceeds the lead action level.

(4) Within sixty (60) days after it exceeds the lead action level, unless it is already repeating public education tasks pursuant to subdivision (5), a nontransient noncommunity water system shall deliver the public education materials contained in subsection (a)(1) or (a)(2) as follows:

- (A) Post informational posters on lead in drinking water in a public place or common area in each of the buildings served by the system.
- (B) Distribute informational pamphlets or brochures, or both, on lead in drinking water to each person served by the nontransient noncommunity water system.

The commissioner may allow the system to utilize electronic transmission in lieu of or combined with printed materials as long as it achieves at least the same coverage.

(5) A nontransient noncommunity water system shall repeat the tasks contained in subdivision (4) at least once during each calendar year in which the system exceeds the lead action level.

(6) A water system may discontinue delivery of public education materials if the system has met the lead action level during the most recent six (6) month monitoring period conducted under section 37 of this

rule. Such a system shall recommence public education in accordance with this section if it subsequently exceeds the lead action level during any monitoring period.

(7) A community water system may apply to the commissioner, in writing, to use the text specified in subsection (a)(2) in lieu of the text in subsection (a)(1) and to perform the tasks listed in subdivisions (4) and (5) in lieu of the tasks in subdivisions (2) and (3) if the following conditions are met:

(A) The system provides water as part of the costs of services provided and does not separately charge for water consumption.

(B) A community water system serving three thousand three hundred (3,300) or fewer people may omit the task contained in subdivision (2)(D). As long as the information contained in subsection (a)(1) to every household served by the system, such systems may further limit their public education program as follows:

(i) Systems serving five hundred (500) or fewer people may omit the requirement in subdivision (2)(B). Such a system may limit the distribution of the public education materials required under subdivision (2)(C) to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children, unless it is notified by the commissioner in writing that it must make a broader distribution.

(ii) If approved by the commissioner in writing, a system serving five hundred one (501) to three thousand three hundred (3,300) people may omit the requirement of subdivision (2)(B) or may limit the distribution of the public education materials required under subdivision (2)(C), or both, to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children.

(C) A community water system serving three thousand three hundred (3,300) or fewer people that delivers public education in accordance with clause (A) shall repeat the required public education tasks at least once during each calendar year in which the system exceeds the lead action level.

(d) A water system that fails to meet the lead action level on the basis of tap samples collected in accordance with section 37 of this rule shall offer to sample the tap water of any customer who requests it. The system is not required to pay for collecting or analyzing the sample, and the system is not required to collect and analyze the sample itself. (*Water Pollution Control Board; 327 IAC 8-2-44; filed Aug 24, 1994, 8:15 a.m.: 18 IR 79; errata filed Oct 11, 1994, 2:45 p.m.: 18 IR 532; filed Oct 26,*

*2001, 4:55 p.m.: 25 IR 779; errata filed Oct 30, 2001, 10:50 a.m.: 25 IR 813; errata filed Feb 22, 2002, 1:59 p.m.: 25 IR 2254)*

### **327 IAC 8-2-45 Analytical methods; lead and copper**

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-11-2; IC 13-14-8; IC 13-18-1; IC 13-18-2

Sec. 45. (a) Analysis for lead, copper, pH, conductivity, calcium, alkalinity, orthophosphate, silica, and temperature shall be conducted using the following methods:

(1) Lead as follows:

(A) Atomic absorption; furnace technique, Method D3559-90D\*, Method D3559-96\*, or Method 3113B\*.

(B) Inductively-coupled plasma; mass spectrometry, Method 200.8\*.

(C) Atomic absorption; platform furnace technique, Method 200.9\*.

(D) Differential pulse anodic stripping voltammetry, Method 1001\*.

(2) Copper as follows:

(A) Atomic absorption; furnace technique, Method D1688-90C\*, Method D1688-95C\*, or Method 3113B\*.

(B) Atomic absorption; direct aspiration, Method D1688-90A\*, Method D1688-95A\*, or Method 3111B\*.

(C) Inductively-coupled plasma; Method 200.7\* or Method 3120B\*.

(D) Inductively-coupled plasma; mass spectrometry, Method 200.8\*.

(E) Atomic absorption; platform furnace, Method 200.9\*.

(3) pH, electrometric, Method 150.1\*, Method 150.2\*, Method D1293-84\*, Method D1293-95\*, or Method 4500-H<sup>-</sup>-B\*.

(4) Conductivity, conductance, Method D1125-91A\*, Method D1125-95A\*, or Method 2510B\*.

(5) Calcium as follows:

(A) EDTA titrimetric, Method D511-93A\* or Method 3500-Ca-D\*.

(B) Atomic absorption; direct aspiration, Method D511-93B\* or Method 3111-B\*.

(C) Inductively-coupled plasma, Method 200.7 or Method 3120B\*.

(6) Alkalinity as follows:

(A) Titrimetric, Method D1067-92B\* or Method 2320B.

(B) Electrometric titration, Method I-1030-85\*.

(7) Orthophosphate, unfiltered, no digestion or hydro

lysis as follows:

(A) Colorimetric, automated, ascorbic acid, Method 365.1\* or Method 4500-P-F\*.

(B) Colorimetric, ascorbic acid, single reagent, Method D515-88A\* or Method 4500-P-E\*.

(C) Colorimetric, phosphomolybdate, Method I-1601-85\* or automated-segmented flow, Method I-2601-90\*, or automated discrete, Method I-2598-85\*.

(D) Ion chromatography, Method 300.0\*, Method D4327-91\*, or Method 4110B\*.

(8) Silica as follows:

(A) Colorimetric, molybdate blue, Method I-1700-85 or automated-segmented flow, Method I-2700-85\*.

(B) Colorimetric, Method D859-88\* or Method D859-95\*.

(C) Molybdosilicate, Method 4500-Si-D\*.

(D) Heteropoly blue, Method 4500-Si-E\*.

(E) Automated method for molybdate-reactive silica, Method 4500-Si-F\*.

(F) Inductively-coupled plasma, Method 200.7\* or Method 3120B\*.

(9) Temperature, thermometric, Method 2550\*.

(b) Analyses for alkalinity, calcium, conductivity, orthophosphate, pH, silica, and temperature may be performed by any person acceptable to the commissioner. Analyses under this section for lead and copper shall only be conducted by laboratories that have been certified by the EPA or the commissioner. To obtain certification to conduct analysis for lead and copper, laboratories must do the following:

(1) Successfully analyze performance evaluation (PE) samples which include lead and copper provided by or acceptable to EPA or the commissioner at least once each year by each method for which the laboratory desires certification.

(2) Achieve quantitative acceptance limits as follows:

(A) For lead, plus or minus thirty percent (30%) of the actual amount in the performance evaluation sample when the actual amount is greater than or equal to five-thousandths (0.005) milligram per liter.

(B) For copper, plus or minus ten percent (10%) of the actual amount in the performance evaluation sample when the actual amount is greater than or equal to five-thousandths (0.005) milligram per liter.

(3) Achieve the method detection limit for lead of one-thousandth (0.001) milligram per liter according to the procedures in Appendix B of 40 CFR 136 (July 1, 1991). This need only be done if the laboratory will be processing source water composite samples under section 39 of this rule.

(4) Be currently certified by EPA or the state to perform analyses to the specifications described in

subsection (a)(2).

(c) The commissioner has the authority to allow the use of previously collected monitoring data for purposes of monitoring if the data were collected and analyzed in accordance with the requirements of sections 36 through 44 of this rule, this section, and sections 46 and 47 of this rule.

(d) All lead levels measured between the practical quantitation level and the method detection limit must be either reported as measured or they can be reported as one-half ( $\frac{1}{2}$ ) the practical quantitation level (twenty-five thousandths (0.025) milligram per liter). All levels below the lead method detection level must be reported as zero (0).

(e) All copper levels measured between the practical quantitation level and the method detection limit must be either reported as measured or they can be reported as one-half ( $\frac{1}{2}$ ) the practical quantitation level (twenty-five thousandths (0.025) milligram per liter). All levels below the copper method detection limit must be reported as zero (0).

<sup>1</sup>For analyzing lead and copper, the technique applicable to total metals must be used and samples cannot be filtered.

\*Methods referenced in this section may be obtained as follows:

(1) Methods 150.1 and 150.2, may be found in "Methods for Chemical Analysis of Water and Wastes", EPA/600/4-79/020, March 1983, available from NTIS, PB84-128677, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161.

(2) Methods 200.7, 200.8, and 200.9 may be found in "Methods for the Determination of Metals in Environmental Samples-Supplement 1", EPA-600/R-94-111, May 1994, available from NTIS, PB95-125472, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161.

(3) Methods D3559-90D, D1688-90C, D1688-90A, D1293-84, D1125-91A, and D859-88 may be found in "Annual Book of ASTM Standards", Vols. 11.01, 1994, American Society for Testing and Materials, available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428.

(4) Methods D1067-92B, D511-93A, D511-93B, D1688-95C, D1688-95A, D1125-95A, D3559-96, D515-88A, D4327-91, D1293-95, and D859-95 may be found in "Annual Book of ASTM Standards, Vols. 11.01 and 11.02, 1994 and 1996, available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428.

(5) Methods 2320B, 3113B, 3111B, 3120B, 4500-H<sup>+</sup>-B, 2510B, 3500-Ca-D, 2320B, 4500-P-F, 4500-P-E,

4110B, 4500-Si-D, 4500-Si-E, 4500-Si-F, and 2550 may be found in "Standard Methods for the Examination of Water and Wastewater", 18<sup>th</sup> Edition, 1992, and "Standard Methods for the Examination of Water and Wastewater", 19<sup>th</sup> Edition, 1995, American Public Health Association, available from the American Public Health Association, 1015 Fifteenth Street N.W., Washington, D.C. 20005. Either edition may be used. (6) Methods I-1030-85, I-1601-85, I-2598-85, I-1700-85, and I-2700-85 may be found in "Techniques of Water Resources Investigation of the U.S. Geological Survey", Book 5, Chapter A-1, 3<sup>rd</sup> Edition, 1989, available from Information Services, U.S. Geological Survey, Federal Center, Box 25286, Denver, Colorado 80225-0425.

(7) Method I-2601-90 may be found in "Methods for Analysis by the U.S. Geological Survey National Water Quality Laboratory - Determination of Inorganic and Organic Constituents in Water and Fluvial Sediments", Open File Report 93-125, 1993, available from Information Services, U.S. Geological Survey, Federal Center, Box 25286, Denver, Colorado 80225-0425.

(8) Methods 365.1 and 300.0 may be found in "Methods for the Determination of Inorganic Substances in Environmental Samples", EPA-600/R-93-100, August 1993, available from NTIS, PB94-120821, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161.

(9) Method 1001 is available from Palintest, LTC, 21 Kenton Lands Road, P.O. Box 18395, Erlanger, Kentucky 41018 or from the Hach Company, P.O. Box 389, Loveland, Colorado 80539-0389.

These methods are also available for copying at the Indiana Department of Environmental Management, Office of Water Quality, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board*; 327 IAC 8-2-45; filed Aug 24, 1994, 8:15 a.m.: 18 IR 82; errata filed Oct 11, 1994, 2:45 p.m.: 18 IR 532; filed Aug 25, 1997, 8:00 a.m.: 21 IR 72; errata filed Dec 10, 1997, 3:45 p.m.: 21 IR 1349; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3978; errata filed Jul 25, 2001, 3:25 p.m.: 24 IR 3991)

### 327 IAC 8-2-46 Reporting requirements; lead and copper

**Authority:** IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

**Affected:** IC 13-18

Sec. 46. (a) Reporting requirements for tap water monitoring for lead and copper and for water quality parameter monitoring shall be as follows:

(1) Except as provided in clause (G), a water system

shall report the following information for all tap water samples within the first ten (10) days following the end of each applicable monitoring period specified in sections 37 and 38 of this rule, that is, every six (6) months, annually, every three (3) years, or every nine (9) years:

(A) The results of all tap samples for lead and copper, including the location of each site and the criteria under section 37(a)(3) through 37(a)(7) of this rule, or any under which the site was selected for the system's sampling pool.

(B) Documentation for each tap water lead or copper sample for which the system requests an invalidation pursuant to section 37(f)(2) of this rule.

(C) The ninetieth percentile lead and copper concentrations measured from among all lead and copper tap samples collected during each monitoring period (calculated in accordance with section 36(c)(3) of this rule unless the commissioner calculates the system's ninetieth percentile lead and copper levels under subsection (h).

(D) With the exception of initial tap sampling conducted under section 37(d)(1) of this rule, the system shall designate any site which was not sampled during previous monitoring periods and include an explanation of why sampling sites have changed.

(E) The results of all tap samples for pH, and where applicable, alkalinity, calcium, conductivity, temperature, and orthophosphate or silica collected under section 38(c) through 38(f) of this rule.

(F) The results of all samples collected at the entry point to the distribution system for applicable water quality parameters under section 38(c) through 38(f) of this rule.

(G) A water system shall report the results of all water quality parameter samples collected under section 38(c) through 38(f) of this rule during each six (6) month monitoring period specified in section 38(d) of this rule within the first ten (10) days following the end of the monitoring period unless the commissioner has specified a more frequent reporting requirement.

(2) For a nontransient noncommunity water system or a community water system meeting the criteria of section 44(c)(7)(A) and 44(c)(7)(B) of this rule, that does not have enough taps that can provide first-draw samples, the system must do either of the following:

(A) Provide written documentation to the commissioner identifying standing times and locations for enough nonfirst-draw samples to make up its sampling pool under section 37(b)(5) of this rule by the start of the first applicable monitoring period under section 37(d) of this rule that commences after April

11, 2000, unless the commissioner has waived prior approval of nonfirst-draw sample sites selected by the system pursuant to section 37(b)(5) of this rule.

(B) If the commissioner has waived prior approval of nonfirst-draw sample sites selected by the system, identify, in writing, each site that did not meet the six (6) hour minimum standing time and the length of the standing time for that particular substitute sample collected pursuant to section 37(b)(5) of this rule and include this information with the lead and copper tap sample results required to be submitted pursuant to subdivision (1)(A).

(3) No later than sixty (60) days after the addition of a new source or any change in water treatment unless the commissioner requires earlier notification, a water system deemed to have optimized corrosion control under section 40(b)(3) of this rule, a water system subject to reduced monitoring pursuant to section 37(d)(4) of this rule, or a water system subject to a monitoring waiver pursuant to section 37(g) of this rule, shall send written documentation to the commissioner describing the change. In those instances where prior approval by the commissioner of the treatment change or new source is not required, water systems are encouraged to provide the notification to the commissioner beforehand to minimize the risk the treatment change or new source will adversely affect optimal corrosion control.

(4) Any small system applying for a monitoring waiver under section 37(g) of this rule, or subject to a waiver granted pursuant to section 37(g)(3) of this rule, shall provide the following information to the commissioner in writing by the specified deadline:

(A) By the start of the first applicable monitoring period in section 37(d) of this rule, any small water system applying for a monitoring waiver shall provide the documentation required to demonstrate that it meets the waiver criteria of section 37(g)(1) and 37(g)(2) of this rule.

(B) No later than nine (9) years after the monitoring previously conducted pursuant to section 37(g)(2) or 37(g)(4)(A) of this rule, each small system desiring to maintain its monitoring waiver shall provide the information required by section 37(g)(4)(A) and 37(g)(4)(B) of this rule.

(C) No later than sixty (60) days after it becomes aware that it is no longer free of lead or copper containing materials, or both, each small system with a monitoring waiver shall provide written notification to the commissioner, setting forth the circumstances resulting in the lead or copper containing materials or both, being introduced into the system and what corrective action, if any, the system plans

to remove these materials.

(D) By October 10, 2000, any small system with a waiver granted prior to April 11, 2000, and that has not previously met the requirements of section 37(g)(2) of this rule shall provide the information required.

(5) Each ground water system that limits water quality parameter monitoring to a subset of entry points under section 38(d)(3) of this rule shall provide, by the commencement of such monitoring, written correspondence to the commissioner that identifies the selected entry points and includes information sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the system.

(b) Source water monitoring reporting requirements shall be as follows:

(1) A water system shall report the sampling results for all source water samples collected in accordance with section 39 of this rule within the first ten (10) days following the end of each source water monitoring period, that is, annually, per compliance period, per compliance cycle, specified in section 39 of this rule.

(2) With the exception of the first round of source water sampling conducted under section 39(b) of this rule, the system shall specify any site which was not sampled during previous monitoring periods and include an explanation of why the sampling point has changed.

(c) This subsection establishes requirements for corrosion control treatment reporting. By the applicable dates under section 40 of this rule, systems shall report the following information:

(1) For systems demonstrating that they already have optimized corrosion control, information required in section 40(b)(2) or 40(b)(3) of this rule.

(2) For systems required to optimize corrosion control, their recommendation regarding optimal corrosion control treatment under section 41(a) of this rule.

(3) For systems required to evaluate the effectiveness of corrosion control treatments under section 41(c) of this rule, the information required under that subsection.

(4) For systems required to install optimal corrosion control designated by the commissioner under section 41(d) of this rule, a letter certifying that the system has completed installing that treatment.

(d) This subsection establishes requirements for source water treatment reporting. By the applicable dates in section 42 of this rule, systems shall provide the following information to the commissioner:

(1) If required under section 42(b)(1) of this rule, their recommendation regarding source water treatment.

(2) For systems required to install source water treatment under section 42(b)(2) of this rule, a letter certifying that the system has completed installing the treatment designated by the commissioner within twenty-four (24) months after the commissioner designated the treatment.

(e) This subsection establishes requirements for lead service line replacement reporting. Systems shall report the following information to the commissioner to demonstrate compliance with the requirements of section 43 of this rule:

(1) Within twelve (12) months after a system exceeds the lead action level in sampling referred to in section 43(a) of this rule, the system shall demonstrate in writing to the commissioner that it has conducted a material evaluation, including the evaluation in section 37(a) of this rule, to identify the initial number of lead service lines in its distribution system, and shall provide the commissioner with the system's schedule for replacing annually at least seven percent (7%) of the initial number of lead service lines within its distribution system.

(2) Within twelve (12) months after a system exceeds the lead action level in sampling referred to in section 43(a) of this rule, and every twelve (12) months thereafter, the system shall demonstrate to the commissioner in writing that the system has done either of the following:

(A) Replaced in the previous twelve (12) months, at least seven percent (7%) of the initial lead service lines (or a greater number of lines specified by the commissioner under section 43(e) of this rule) in its distribution system.

(B) Conducted sampling which demonstrates that the lead concentration in all service line samples from an individual line, taken under section 37(b)(3) of this rule, is less than or equal to fifteen-thousandths (0.015) milligram per liter. In such cases, the total number of lines replaced and which meet the criteria in section 43(b) of this rule, shall equal at least seven percent (7%) of the initial number of lead lines identified under subsection (a) (or the percentage specified by the commissioner under section 43(e) of this rule).

(3) The annual letter submitted to the commissioner under subdivision (2) shall contain the following information:

(A) The number of lead service lines scheduled to be replaced during the previous year of the system's replacement schedule.

(B) The number and location of each lead service line replaced during the previous year of the system's replacement schedule.

(C) If measured, the water lead concentration and location of each service line sampled, the sampling method, and the date of sampling.

(4) Any system that collects lead service line samples following partial lead service line replacement required by section 43 of this rule shall report the results to the commissioner within the first ten (10) days of the month following the month when the system receives the laboratory results or as specified by the commissioner. A system shall also report any additional information as specified by the commissioner. The results shall be reported in the time and manner prescribed by the commissioner to verify that all partial lead service line replacement activities have taken place.

(f) The following are requirements for public education program reporting:

(1) Any water system that is subject to the public education requirements in section 44 of this rule shall, within ten (10) days after the end of each period in which the system is required to perform public education tasks in accordance with section 44(c) of this rule, send written documentation to the commissioner that contains the following information:

(A) A demonstration that the system has delivered the public education materials that meet the content requirements in section 44(a) and 44(b) of this rule and the delivery requirements in section 44(c) of this rule.

(B) A list of all the newspapers, radio stations, television stations, facilities, and organizations to which the system delivered public education materials during the period in which the system was required to perform the public education tasks.

(2) Unless required by the commissioner, a system that previously submitted the information required by subdivision (1)(B), as long as there have been no changes in the distribution list and the system certifies that the public education materials were distributed to the same list submitted previously.

(g) Any system that collects sampling data in addition to that required by sections 36 through 45 of this rule, this section, and section 47 of this rule shall report the results to the commissioner within the first ten (10) days following the end of the applicable monitoring period under sections 37 through 39 of this rule during which the samples are collected.

(h) A water system is not required to report the ninetieth percentile lead and copper concentrations measured from among all lead and copper tap water samples collected in each monitoring period as required by subsection (a)(1)(C) if the following conditions are met:

(1) The commissioner has previously notified the water

system that it will calculate the water system's ninetieth percentile lead and copper concentrations, based on the lead and copper results submitted pursuant to subdivision (2)(A), and has specified a date before the end of the applicable monitoring period by which the system must provide the results of lead and copper tap water samples.

(2) The system has provided the following information to the commissioner by the date specified in subdivision (1):

(A) The results of all tap samples for lead and copper including the location of each site and the criteria under section 37(a)(3), 37(a)(4), 37(a)(5), 37(a)(6), or 37(a)(7) of this rule, under which the site was selected for the system's sampling pool, pursuant to subsection (a)(1)(A).

(B) An identification of the sampling sites utilized during the current monitoring period that were not sampled during previous monitoring periods, and an explanation why sampling sites have changed.

(3) The commissioner has provided the results of the ninetieth percentile lead and copper calculations, in writing, to the water system before the end of the monitoring period.

(i) The information required by this section shall be submitted to the commissioner using the methods specified in section 13(e) of this rule. (*Water Pollution Control Board; 327 IAC 8-2-46; filed Aug 24, 1994, 8:15 a.m.: 18 IR 84; filed Oct 24, 1997, 4:30 p.m.: 21 IR 945; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3980; filed Oct 26, 2001, 4:55 p.m.: 25 IR 784; errata filed Oct 30, 2001, 10:50 a.m.: 25 IR 813; errata filed Feb 22, 2002, 1:59 p.m.: 25 IR 2254*)

### **327 IAC 8-2-47 Record keeping requirements; lead and copper**

**Authority:** IC 13-1-3-4; IC 13-7-2-15; IC 13-7-7-5; IC 13-7-14-5  
**Affected:** IC 13-7

Sec. 47. Any system subject to the requirements of sections 37 through 44 of this rule shall retain on its premises original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, commissioner determinations, and any other information required by sections 37 through 44 of this rule. Each water system shall retain the records required by this section for no fewer than twelve (12) years. (*Water Pollution Control Board; 327 IAC 8-2-47; filed Aug 24, 1994, 8:15 a.m.: 18 IR 86*)

### **327 IAC 8-2-48 Monitoring of consecutive public water systems**

**Authority:** IC 13-13-5-1; IC 13-14-8-7; IC 13-14-9; IC 13-18-3-2; IC 13-18-16-7

**Affected:** IC 13-11-2; IC 13-18-1; IC 13-18-2

Sec. 48. When a public water system supplies water to one (1) or more other public water systems, the commissioner may modify the monitoring requirements imposed by this article to the extent that the interconnection of the systems justifies treating them as a single system for monitoring purposes. Any modified monitoring shall be conducted pursuant to a schedule specified by the commissioner and concurred by the administrator of the U.S. EPA. (*Water Pollution Control Board; 327 IAC 8-2-48; filed May 1, 2003, 12:00 p.m.: 26 IR 2818*)

### **Rule 2.1. Consumer Confidence Reports**

- 327 IAC 8-2.1-1 Purpose; applicability; definitions
- 327 IAC 8-2.1-2 Effective dates
- 327 IAC 8-2.1-3 Content of the reports
- 327 IAC 8-2.1-4 Required additional health information
- 327 IAC 8-2.1-5 Report delivery; record keeping
- 327 IAC 8-2.1-6 Other required information
- 327 IAC 8-2.1-7 Public notification of drinking water violations
- 327 IAC 8-2.1-8 Tier 1 public notice; form, manner, and frequency of notice
- 327 IAC 8-2.1-9 Tier 2 notice; form, manner, and frequency of notice
- 327 IAC 8-2.1-10 Tier 3 public notice; form, manner, and frequency of notice
- 327 IAC 8-2.1-11 Contents of the public notice
- 327 IAC 8-2.1-12 Notice to new billing units or new customers
- 327 IAC 8-2.1-13 Special notice for exceedance of the SMCL for fluoride
- 327 IAC 8-2.1-14 Special notice for nitrate exceedances above MCL by noncommunity water systems; granted permission by the commissioner under 327 IAC 8-2-4(b)
- 327 IAC 8-2.1-15 Notice by the commissioner on behalf of the public water system
- 327 IAC 8-2.1-16 Drinking water violations; other situations requiring public notice
- 327 IAC 8-2.1-17 Drinking water violations; standard health effects language for public notice

### **327 IAC 8-2.1-1 Purpose; applicability; definitions**

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9

**Affected:** IC 13-18-16

Sec. 1. (a) This rule establishes the minimum requirements for the content of annual reports that a community water system shall deliver to its customers. These reports must contain information on the quality of the water delivered by the system and characterize the risks, if any, from exposure to contaminants detected in the drinking water in an accurate and understandable manner.

(b) This rule applies only to community water systems.

(c) In addition to the definitions contained in 327 IAC 8-2-1, the following definitions apply throughout this rule:

(1) "Customers" means billing units or service connections to which water is delivered by a community water system.

(2) "Department" means the Indiana department of environmental management.

(3) "Detected" means at or above the levels prescribed by 327 IAC 8-2-4.1, 327 IAC 8-2-5.1, 327 IAC 8-2-5.5, and 327 IAC 8-2-10.1.

*(Water Pollution Control Board; 327 IAC 8-2.1-1; filed Mar 22, 2000, 3:23 p.m.: 23 IR 1898)*

### 327 IAC 8-2.1-2 Effective dates

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9

**Affected:** IC 13-18-16

Sec. 2. (a) An existing community water system shall deliver its first report no later than October 19, 1999, its second report no later than July 1, 2000, and subsequent reports no later than July 1 annually thereafter. The first report must contain data collected during, or prior to, calendar year 1998, as specified in section 3(d)(5) of this rule. Each report thereafter must contain data collected during, or prior to, the previous calendar year.

(b) A new community water system shall deliver its first report no later than July 1 of the year after its first full calendar year in operation and no later than July 1 annually thereafter.

(c) A community water system that sells water to another community water system shall deliver the applicable information required in section 3 of this rule to the buyer system:

(1) no later than April 19, 1999, no later than April 1, 2000, and no later than April 1 annually thereafter; or

(2) on a date mutually agreed upon by the seller and the purchaser and specifically included in a contract between the parties.

*(Water Pollution Control Board; 327 IAC 8-2.1-2; filed Mar 22, 2000, 3:23 p.m.: 23 IR 1898)*

### 327 IAC 8-2.1-3 Content of the reports

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9

**Affected:** IC 13-18-16

Sec. 3. (a) A community water system shall provide to its customers an annual report that contains the information specified in this section and section 4 of this rule.

(b) The report must contain information on the source of the water delivered, including the following:

(1) The source or sources of water delivered by the community water system by including information on:

(A) the type of water, such as surface water or ground water; and

(B) the commonly used name, if any, and location of the body or bodies of water.

(2) If a source water assessment has been completed, the report must notify the consumers of the availability of this information and the means to obtain it. In addition, systems are encouraged to highlight in the report significant sources of contamination in the source water area if they have readily available information. Where a system has received a source water assessment from the commissioner, the report must include a brief summary of the system's susceptibility to potential sources of contamination, using language provided by the commissioner or written by the operator.

(c) The report must include the following definitions:

(1) "Maximum contaminant level goal" or "MCLG" means the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

(2) "Maximum contaminant level" or "MCL" means the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

(d) A report that contains data on contaminants that the department or EPA regulates and uses any of the following terms must include definitions, as applicable, of the terms used:

(1) "Treatment technique" means a required process intended to reduce the level of a contaminant in drinking water.

(2) "Action level" means the concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system shall follow.

(e) A report must include the information specified in this subsection for the following contaminants subject to mandatory monitoring, other than *Cryptosporidium*:

(1) Contaminants subject to an MCL, action level, or treatment technique, hereafter referred to as regulated contaminants.

(2) Disinfection byproducts or microbial contaminants for which monitoring is required by 40 CFR 141.142\* and 40 CFR 141.143\*, except as provided in subsection (e)(1), and that are detected in the finished water.

(3) The data relating to these contaminants must be displayed in one (1) table or in several adjacent tables. Any additional monitoring results that a community water system chooses to include in its report must be displayed separately.

(4) The data must be derived from data collected to comply with EPA and department monitoring and analytical requirements during calendar year 1998 for the first report and subsequent calendar years thereafter

ter, except the following:

- (A) Where a system is allowed to monitor for regulated contaminants less often than once a year, the table or tables must include the date and results of the most recent sampling, and the report must include a brief statement indicating that the data presented in the report are from the most recent testing done in accordance with the regulations. No data older than five (5) years need be included.
- (B) Results of monitoring in compliance with 40 CFR 141.142\* and 40 CFR 141.143\* need only be included for five (5) years from the date of the last sample or until any of the detected contaminants becomes regulated and subject to routine monitoring requirements, whichever comes first.
- (5) For detected regulated contaminants listed in section 6(a) of this rule, the table or tables must contain the following information:
  - (A) The MCL for that contaminant expressed as a number equal to or greater than one and zero tenths (1.0), as listed in section 6(a) of this rule.
  - (B) The MCLG for that contaminant expressed in the same units as the MCL.
  - (C) If there is no MCL for a detected contaminant, the table must indicate that there is a treatment technique, or specify the action level, applicable to that contaminant, and the report shall include the definitions for treatment technique or action level, or both, as appropriate, specified in subsection (c)(4).
  - (D) For contaminants subject to an MCL, except turbidity and total coliforms, the highest contaminant level used to determine compliance with this rule and the range of detected levels as follows:
    - (i) When compliance with the MCL is determined annually or less frequently, the highest detected level at any sampling point and the range of detected levels expressed in the same units as the MCL.
    - (ii) When compliance with the MCL is determined by calculating a running annual average of all samples taken at a sampling point, the highest average of any of the sampling points and the range of all sampling points expressed in the same units as the MCL.
    - (iii) When compliance with the MCL is determined on a system-wide basis by calculating a running annual average of all samples at all sampling points, the average and range of detection expressed in the same units as the MCL.
  - (E) When turbidity is reported pursuant to 327 IAC 8-2-8.8 or 327 IAC 8-2.6-3, the highest single measurement and the lowest monthly percentage of samples meeting the turbidity limits specified in 327

IAC 8-2-8.8 or 327 IAC 8-2.6-3 for the filtration technology being used. The report must include an explanation of the reasons for measuring turbidity.

- (F) For lead and copper, the ninetieth percentile value of the most recent round of sampling and the number of sampling sites exceeding the action level.
- (G) For total coliform, the highest monthly:
  - (i) number of positive samples for systems collecting fewer than forty (40) samples per month; or
  - (ii) percentage of positive samples for systems collecting at least forty (40) samples per month.
- (H) For fecal coliform, the total number of positive samples.
- (I) The likely source or sources of detected contaminants to the best of the operator's knowledge. Specific information regarding contaminants may be available in sanitary surveys and source water assessments, and must be used when available to the operator. If the operator lacks specific information on the likely source, the report must include one (1) or more of the typical sources for that contaminant listed in section 6(b) of this rule that are most applicable to the system.
- (6) If a community water system distributes water to its customers from multiple hydraulically independent distribution systems that are fed by different raw water sources:
  - (A) the table must contain a separate column for each service area and the report must identify each separate distribution system; or
  - (B) the system may produce separate reports tailored to include data for each service area.
- (7) The table must clearly identify any data indicating violations of MCLs or treatment techniques, and the report must contain a clear and readily understandable explanation of the violation, including the length of the violation, the potential adverse health effects, and actions taken by the system to address the violation. To describe the potential health effects, the system shall use the relevant language of section 6(c) of this rule.
- (f) Each report must contain the following information on Cryptosporidium, radon, and other contaminants:
  - (1) If the system has performed any monitoring for Cryptosporidium, including monitoring performed to satisfy the requirements of 40 CFR 141.143\*, that indicates Cryptosporidium may be present in the source water or the finished water, the report must include:
    - (A) a summary of the results of the monitoring; and
    - (B) an explanation of the significance of the results.
  - (2) If the system has performed any monitoring for radon that indicates radon may be present in the finished water, the report must include:

(A) the results of the monitoring; and

(B) an explanation of the significance of the results.

(3) If the system has performed additional monitoring that indicates the presence of other contaminants in the finished water, the commissioner strongly encourages systems to report any results that may indicate a health concern. To determine if results may indicate a health concern, the commissioner recommends that systems find out if EPA has proposed a National Primary Drinking Water Regulation (NPDWR) or issued a health advisory for that contaminant by calling the Safe Drinking Water Hotline at (800) 426-4791. The commissioner and EPA consider levels detected above a proposed federal or state MCL or health advisory level to indicate possible health concerns. For such contaminants, the commissioner recommends that the report includes:

(A) the results of the monitoring; and

(B) an explanation of the significance of the results noting the existence of a health advisory or a proposed regulation.

(g) In addition to the requirements of subsection (d)(5), the report must note any violation of a requirement listed in this subsection that occurred during the year covered by the report, and include a clear and readily understandable explanation of the violation, any potential adverse health effects, and the steps the system has taken to correct the violation. Violations of the following requirements must be included:

(1) Monitoring and reporting of compliance data.

(2) Filtration and disinfection prescribed by 327 IAC 8-2-8.5 and 327 IAC 8-2-8.6. For systems that have failed to install adequate filtration or disinfection equipment or processes, or have had a failure of such equipment or processes that constitutes a violation, the report must include the following language as part of the explanation of potential health effects, "inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches."

(3) Lead and copper control requirements prescribed by 327 IAC 8-2-36 through 327 IAC 8-2-47. For systems that fail to take one (1) or more actions prescribed by 327 IAC 8-2-36(d) or 327 IAC 8-2-40 through 327 IAC 8-2-43, the report must include the applicable language from section 6(c) of this rule for lead or copper, or both.

(4) Treatment techniques for acrylamide and epichlorohydrin prescribed by 327 IAC 8-2-35. For systems that violate 327 IAC 8-2-35, the report shall include the relevant language from section 6(c) of this rule.

(5) Record keeping of compliance data.

(6) Special monitoring requirements prescribed by 327 IAC 8-2-21.

(7) Violation of the terms of an administrative or judicial order.

(h) The following additional information must be contained in the report:

(1) A brief explanation regarding contaminants that may reasonably be expected to be found in drinking water, including bottled water. This explanation may include the language in clauses (A) through (C), or systems may use their own comparable language. The report must also include the language of clause (D). The language is as follows:

(A) The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

(B) Contaminants that may be present in source water include the following:

(i) Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

(ii) Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater run-off, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

(iii) Pesticides and herbicides, that may come from a variety of sources, such as agriculture, urban stormwater run-off, and residential uses.

(iv) Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater run-off, and septic systems.

(v) Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

(C) In order to ensure that tap water is safe to drink, the department and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Federal Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

(D) Drinking water, including bottled water, may reasonably be expected to contain at least small

amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

(2) The telephone number of the owner, operator, or designee of the community water system as a source of additional information concerning the report.

(3) In communities with a large proportion of non-English speaking residents, in which twenty percent (20%) or more of the residents speak the same language other than English, the report must contain information in the appropriate language or languages regarding the importance of the report or contain a telephone number or address where such residents may contact the system to obtain a translated copy of the report or assistance in the appropriate language.

(4) The report must include information about opportunities for public participation in decisions that may affect the quality of water. This information may include, but is not limited to, the time and place of regularly scheduled board meetings.

(5) The systems may include such additional information as they deem necessary for public education consistent with, and not detracting from, the purpose of the report.

\*The Code of Federal Regulations (CFR) citations are incorporated by reference into this rule and are available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Quality, Indiana Government Center-North, Twelfth Floor, Room 1255, 100 North Senate Avenue, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-2.1-3; filed Mar 22, 2000, 3:23 p.m.: 23 IR 1899; filed Jul 23, 2001, 1:02 p.m.: 24 IR 3982; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1098; filed May 1, 2003, 12:00 p.m.: 26 IR 2818*)

### **327 IAC 8-2.1-4 Required additional health information**

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9

**Affected:** IC 13-18-16

Sec. 4. (a) A report must prominently display the language: "Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or

other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. Environmental Protection Agency and Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791."

(b) If a system detects arsenic at levels above twenty-five (25) micrograms per liter, but below the MCL, it shall do one (1) of the following:

(1) Include in its report the language: "The U.S. Environmental Protection Agency is reviewing the drinking water standard for arsenic because of special concerns that it may not be stringent enough. Arsenic is a naturally-occurring mineral known to cause cancer in humans at high concentrations."

(2) Write its own educational statement, if such statement is written in consultation with the commissioner, and include that statement in the report.

(c) If a system detects nitrate at levels above five (5) milligrams per liter, but below the MCL, it shall do one (1) of the following:

(1) Include in its report the language: "Nitrate in drinking water at levels above ten (10) parts per million is a health risk for infants of less than six (6) months of age. High nitrate levels in drinking water can cause blue-baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, seek advice from your health care provider."

(2) Write its own educational statement, if such statement is written in consultation with the commissioner, and include that statement in the report.

(d) If a system detects lead above the action level in more than five percent (5%), and up to and including ten percent (10%), of homes sampled, it shall do one (1) of the following:

(1) Include in its report the language: "Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for thirty (30) seconds to two (2) minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline at (800) 426-4791."

(2) Write its own educational statement, if such statement is written in consultation with the commissioner,

and include that statement in the report.

(e) If a system detects total trihalomethanes above eight-hundredths (0.08) milligrams per liter, but below the MCL in 327 IAC 8-2-5(a), as an annual average, monitored and calculated under the provisions of 327 IAC 8-2-5.3, it shall include in its report the health effects language in table 17(G)(74) contained in section 17 of this rule. (*Water Pollution Control Board; 327 IAC 8-2.1-4; filed Mar 22, 2000, 3:23 p.m.: 23 IR 1902; filed May 1, 2003, 12:00 p.m.: 26 IR 2821*)

**327 IAC 8-2.1-5 Report delivery; record keeping**

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9  
**Affected:** IC 13-18-16

Sec. 5. (a) A community water system shall mail or otherwise directly deliver one (1) copy of the consumer confidence report to each customer.

(b) The system shall make a good faith effort to inform consumers who do not get water bills, using means recommended by the commissioner. The commissioner expects that an adequate good faith effort will be tailored to the consumers who are served by the system, but are not bill-paying customers, such as renters or workers. A good faith effort to inform consumers may include, but is not limited to, methods appropriate to the particular system, including any of the following:

- (1) Posting the reports on the Internet.
- (2) Mailing to postal patrons in metropolitan areas.
- (3) Advertising the availability of the report in the news media.
- (4) Publication in a local newspaper.
- (5) Posting in public places such as cafeterias or lunch rooms of public buildings.
- (6) Delivery of multiple copies for distribution by single-biller customers, such as apartment buildings or

large private employers.

(7) Delivery to community organizations.

(c) No later than the date the system is required to distribute the report to its customers, a community water system shall mail a copy of the report to the department, followed within three (3) months by a certification that the report has been distributed to customers, and that the information is correct and consistent with the compliance monitoring data previously submitted to the commissioner.

(d) No later than the date the system is required to distribute the report to its customers, a community water system shall deliver the report to any other agency or clearinghouse identified by the commissioner, including the county health department or departments serving the county or counties where the system's distribution system is located.

(e) A community water system shall make its reports available to the public upon request.

(f) A community water system serving one hundred thousand (100,000) or more persons shall post its current year's report to a publicly-accessible site on the Internet.

(g) A community water system shall retain copies of its consumer confidence report for no less than five (5) years. (*Water Pollution Control Board; 327 IAC 8-2.1-5; filed Mar 22, 2000, 3:23 p.m.: 23 IR 1903*)

**327 IAC 8-2.1-6 Other required information**

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9  
**Affected:** IC 13-18-16

Sec. 6. (a) In order to convert MCLs to numbers greater than or equal to one and zero-tenths (1.0) for the required table referenced in section 3 of this rule, a community water system shall use the following table:

Table 6-1: Converting MCL Compliance Values for Consumer Confidence Reports

Contaminant	MCL in Compliance Units (mg/l)	multiply by...	MCL in CCR Units	MCLG in CCR Units
<b>Microbiological contaminants</b>				
1. Total coliform bacteria			5% of monthly samples are positive (systems that collect forty (40) or more samples per month); one (1) positive monthly sample (systems that collect fewer than forty (40) samples per month).	0
2. Fecal coliform and E. coli			A routine sample and a repeat sample are total coliform positive, and one (1) is also fecal coliform or E. coli positive.	0

3. Total organic carbon	TT		TT	n/a
4. Turbidity			TT (NTU)	n/a
Radioactive contaminants				
5. Beta/photon emitters	4 mrem/year		4 mrem/year	0
6. Alpha emitters	15 pCi/l		15 pCi/l	0
7. Combined radium	5 pCi/l		5 pCi/l	0
Inorganic contaminants				
8. Antimony	0.006	1,000	6 ppb	6
9. Arsenic	0.05	1,000	50 ppb	n/a
10. Asbestos	7 MFL		7 MFL	7
11. Barium	2		2 ppm	2
12. Beryllium	0.004	1,000	4 ppb	4
13. Cadmium	0.005	1,000	5 ppb	5
14. Chromium	0.1	1,000	100 ppb	100
15. Copper	AL = 1.3		AL = 1.3 ppm	1.3
16. Cyanide	0.2	1,000	200 ppb	200
17. Fluoride	4		4 ppm	4
18. Lead	AL = 0.015	1,000	AL = 15 ppb	0
19. Mercury (inorganic)	0.002	1,000	2 ppb	2
20. Nitrate (as nitrogen)	10		10 ppm	10
21. Nitrite (as nitrogen)	1		1 ppm	1
22. Selenium	0.05	1,000	50 ppb	50
23. Thallium	0.002	1,000	2 ppb	0.5
Synthetic organic contaminants including pesticides and herbicides				
24. 2,4-D	0.07	1,000	70 ppb	70
25. 2,4,5-TP (silvex)	0.05	1,000	50 ppb	50
26. Acrylamide			TT	0
27. Alachlor	0.002	1,000	2 ppb	0
28. Atrazine	0.003	1,000	3 ppb	3
29. Benzo(a)pyrene (PAH)	0.0002	1,000,000	200 ppt	0
30. Carbofuran	0.04	1,000	40 ppb	40
31. Chlordane	0.002	1,000	2 ppb	0
32. Dalapon	0.2	1,000	200 ppb	200
33. Di(2-ethylhexyl)adipate	.4	1,000	400 ppb	400
34. Di(2-ethylhexyl)phthalate	0.006	1,000	6 ppb	0
35. Dibromochloropropane	0.0002	1,000,000	200 ppt	0
36. Dinoseb	0.007	1,000	7 ppb	7
37. Diquat	0.02	1,000	20 ppb	20
38. Dioxin (2,3,7,8-TCDD)	0.00000003	1,000,000,000	30 ppq	0
39. Endothall	0.1	1,000	100 ppb	100
40. Endrin	0.002	1,000	2 ppb	2
41. Epichlorohydrin			TT	0
42. Ethylene dibromide	0.00005	1,000,000	50 ppt	0
43. Glyphosate	0.7	1,000	700 ppb	700
44. Heptachlor	0.0004	1,000,000	400 ppt	0
45. Heptachlor epoxide	0.0002	1,000,000	200 ppt	0
46. Hexachlorobenzene	0.001	1,000	1 ppb	0
47. Hexachlorocyclopentadiene	0.05	1,000	50 ppb	50
48. Lindane	0.0002	1,000	200 ppt	200
49. Methoxychlor	0.04	1,000	40 ppb	40
50. Oxamyl (vydate)	0.2	1,000	200 ppb	200

51. PCBs (polychlorinated biphenyls)	0.0005	1,000,000	500 ppt	0
52. Pentachlorophenol	0.001	1,000	1 ppb	0
53. Picloram	0.5	1,000	500 ppb	500
54. Simazine	0.004	1,000	4 ppb	4
55. Toxaphene	0.003	1,000	3 ppb	0
Volatile organic contaminants				
56. Benzene	0.005	1,000	5 ppb	0
57. Bromate	.010	1,000	10 ppb	0
58. Carbon tetrachloride	0.005	1,000	5 ppb	0
59. Chloramines	MRDL = 4		MRDL = 4 ppm	MRDLG = 4
60. Chlorine	MRDL = 4		MRDL = 4 ppm	MRDLG = 4
61. Chlorite	1		1 ppm	.8
62. Chloride dioxide	MRDL = .8	1,000	MRDL = 800ppb	MRDLG = 800
63. Chlorobenzene	0.1	1,000	100 ppb	100
64. o-Dichlorobenzene	0.6	1,000	600 ppb	600
65. p-Dichlorobenzene	0.075	1,000	75 ppb	75
66. 1,2-Dichloroethane	0.005	1,000	5 ppb	0
67. 1,1-Dichloroethylene	0.007	1,000	7 ppb	7
68. cis-1,2-Dichloroethylene	0.07	1,000	70 ppb	70
69. trans-1,2-Dichloroethylene	0.1	1,000	100 ppb	100
70. Dichloromethane	0.005	1,000	5 ppb	0
71. 1,2-Dichloropropane	0.005	1,000	5 ppb	0
72. Ethylbenzene	0.7	1,000	700 ppb	700
73. Haloacetic acids (HAA)	.060	1,000	60 ppb	n/a
74. Styrene	0.1	1,000	100 ppb	100
75. Tetrachloroethylene	0.005	1,000	5 ppb	0
76. 1,2,4-Trichlorobenzene	0.07	1,000	70 ppb	70
77. 1,1,1-Trichloroethane	0.2	1,000	200 ppb	200
78. 1,1,2-Trichloroethane	0.005	1,000	5 ppb	3
79. Trichloroethylene	0.005	1,000	5 ppb	0
80. TTHMs (total trihalomethanes)	0.1	1,000	100 ppb	n/a
81. Toluene	1		1 ppm	1
82. Vinyl chloride	0.002	1,000	2 ppb	0
83. Xylenes	10		10 ppm	10

Key:

AL = Action level.

MCL = Maximum contaminant level.

MCLG = Maximum contaminant level goal.

MFL = Million fibers per liter.

mrem/year = Millirems per year (a measure of radiation absorbed by the body).

NTU = Nephelometric turbidity units.

pCi/l = Picocuries per liter (a measure of radioactivity).

ppm = Parts per million, or milligrams per liter (mg/l).

ppb = Parts per billion, or micrograms per liter ( $\mu\text{g/l}$ ).

ppt = Parts per trillion, or nanograms per liter (ng/l).

ppq = Parts per quadrillion, or picograms per liter (pg/l).

TT = Treatment technique.

(b) In order to show potential sources of contamination for the table required by section 3 of this rule, a community water system shall use the following table:

Table 6-2: Regulated Contaminants

Contaminant (units)	MCLG	MCL	Major Sources in Drinking Water
Microbiological contaminants			
1. Total coliform bacteria	0	5% of monthly samples are positive (systems that collect forty (40) or more samples per month); one (1) positive monthly sample (systems that collect fewer than forty (40) samples per month).	Naturally present in the environment.
2. Fecal coliform and E. coli	0	A routine sample and a repeat sample are total coliform positive, and one (1) is also fecal coliform or E. coli positive.	Human and animal fecal waste.
3. Total organic carbon	n/a	TT	Naturally present in the environment.
4. Turbidity	n/a	TT	Soil run-off.
Radioactive contaminants			
5. Beta/photon emitters (mrem/year)	0	4	Decay of natural and manmade deposits.
6. Alpha emitters (pCi/l)	0	15	Erosion of natural deposits.
7. Combined radium (pCi/l)	0	5	Erosion of natural deposits.
Inorganic contaminants			
8. Antimony (ppb)	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
9. Arsenic (ppb)	n/a	50	Erosion of natural deposits; run-off from orchards; run-off from glass and electronics production wastes.
10. Asbestos (MFL)	7	7	Decay of asbestos cement water mains; erosion of natural deposits.
11. Barium (ppm)	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
12. Beryllium (ppb)	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries.
13. Cadmium (ppb)	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; run-off from waste batteries and paints.
14. Chromium (ppb)	100	100	Discharge from steel and pulp mills; erosion of natural deposits.
15. Copper (ppm)	1.3	AL = 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

16. Cyanide (ppb)	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories.
17. Fluoride (ppm)	4	4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
18. Lead (ppb)	0	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits.
19. Mercury (inorganic) (ppb)	2	2	Erosion of natural deposits; discharge from refineries and factories; run-off from landfills; run-off from cropland.
20. Nitrate (as nitrogen) (ppm)	10	10	Run-off from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
21. Nitrite (as nitrogen) (ppm)	1	1	Run-off from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
22. Selenium (ppb)	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
23. Thallium (ppb)	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories.
Synthetic organic contaminants, including pesticides and herbicides			
24. 2,4-D (ppb)	70	70	Run-off from herbicide used on row crops.
25. 2,4,5-TP (Silvex) (ppb)	50	50	Residue of banned herbicide.
26. Acrylamide	0	TT	Added to water during sewage/wastewater treatment.
27. Alachlor (ppb)	0	2	Run-off from herbicide used on row crops.
28. Atrazine (ppb)	3	3	Run-off from herbicide used on row crops.
29. Benzo(a)pyrene (PAH) (ppt)	0	200	Leaching from linings of water storage tanks and distribution lines.
30. Carbofuran (ppb)	40	40	Leaching of soil fumigant used on rice and alfalfa.
31. Chlordane (ppb)	0	2	Residue of banned termiticide.
32. Dalapon (ppb)	200	200	Run-off from herbicide used on rights-of-way.
33. Di(2-ethylhexyl)adipate (ppb)	400	400	Discharge from chemical factories.
34. Di(2-ethylhexyl)phthalate (ppb)	0	6	Discharge from rubber and chemical factories.
35. Dibromochloropropane (ppt)	0	200	Run-off/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
36. Dinoseb (ppb)	7	7	Run-off from herbicide used on soybeans and vegetables.

37. Diquat (ppb)	20	20	Run-off from herbicide use.
38. Dioxin (2,3,7,8-TCDD) (ppq)	0	30	Emissions from waste incineration and other combustion; discharge from chemical factories.
39. Endothall (ppb)	100	100	Run-off from herbicide use.
40. Endrin (ppb)	2	2	Residue of banned insecticide.
41. Epichlorohydrin	0	TT	Discharge from industrial chemical factories; an impurity of same water treatment chemicals.
42. Ethylene dibromide (ppt)	0	50	Discharge from petroleum refineries.
43. Glyphosate (ppb)	700	700	Run-off from herbicide use.
44. Heptachlor (ppt)	0	400	Residue of banned termiticide.
45. Heptachlor epoxide (ppt)	0	200	Breakdown of heptachlor.
46. Hexachlorobenzene (ppb)	0	1	Discharge from metal refineries and agricultural chemical factories.
47. Hexachlorocyclopentadiene (ppb)	50	50	Discharge from chemical factories.
48. Lindane (ppt)	200	200	Run-off/leaching from insecticide used on cattle, lumber, gardens.
49. Methoxychlor (ppb)	40	40	Run-off/leaching from insecticide used on fruits, vegetables, alfalfa, livestock.
50. Oxamyl (vydate) (ppb)	200	200	Run-off/leaching from insecticide used on apples, potatoes, and tomatoes.
51. PCBs (polychlorinated biphenyls) (ppt)	0	500	Run-off from landfills; discharge of waste chemicals.
52. Pentachlorophenol (ppb)	0	1	Discharge from wood preserving factories.
53. Picloram (ppb)	500	500	Herbicide run-off.
54. Simazine (ppb)	4	4	Herbicide run-off.
55. Toxaphene (ppb)	0	3	Run-off/leaching from insecticide used on cotton and cattle.
Volatile organic contaminants			
56. Benzene (ppb)	0	5	Discharge from factories; leaching from gas storage tanks and landfills.
57. Bromate (ppb)	0	10	Byproduct of drinking water chlorination.
58. Carbon tetrachloride (ppb)	0	5	Discharge from chemical plants and other industrial activities.
59. Chloramines (ppm)	MRDLG = 4	MRDL = 4	Water additive used to control microbes.
60. Chlorine (ppm)	MRDLG = 4	MRDL = 4	Water additive used to control microbes.
61. Chlorite (ppm)	.8	1	Byproduct of drinking water chlorination.
62. Chloride dioxide (ppb)	MRDLG = 800	MRDL = 800	Water additive used to control microbes.
63. Chlorobenzene (ppb)	100	100	Discharge from chemical and agricultural chemical factories.

64. o-Dichlorobenzene (ppb)	600	600	Discharge from industrial chemical factories.
65. p-Dichlorobenzene (ppb)	75	75	Discharge from industrial chemical factories.
66. 1,2-Dichloroethane (ppb)	0	5	Discharge from industrial chemical factories.
67. 1,1-Dichloroethylene (ppb)	7	7	Discharge from industrial chemical factories.
68. cis-1,2-Dichloroethylene (ppb)	70	70	Discharge from industrial chemical factories.
69. trans-1,2-Dichloroethylene (ppb)	100	100	Discharge from industrial chemical factories.
70. Dichloromethane (ppb)	0	5	Discharge from pharmaceutical and chemical factories.
71. 1,2-Dichloropropane (ppb)	0	5	Discharge from industrial chemical factories.
72. Ethylbenzene (ppb)	700	700	Discharge from petroleum refineries.
73. Haloacetic Acids (HAA) (ppb)	n/a	60	Byproduct of drinking water disinfection.
74. Styrene (ppb)	100	100	Discharge from rubber and plastic factories; leaching from landfills.
75. Tetrachloroethylene (ppb)	0	5	Discharge from factories and dry cleaners.
76. 1,2,4-Trichlorobenzene (ppb)	70	70	Discharge from textile-finishing factories.
77. 1,1,1-Trichloroethane (ppb)	200	200	Discharge from metal degreasing sites and other factories.
78. 1,1,2-Trichloroethane (ppb)	3	5	Discharge from industrial chemical factories.
79. Trichloroethylene (ppb)	0	5	Discharge from metal degreasing sites and other factories.
80. TTHMs (total trihalomethanes) (ppb)	n/a	100	Byproduct of drinking water chlorination.
81. Toluene (ppm)	1	1	Discharge from petroleum factories.
82. Vinyl chloride (ppb)	0	2	Leaching from PVC piping; discharge from plastics factories.
83. Xylenes (ppm)	10	10	Discharge from petroleum factories; discharge from chemical factories.

## Key:

AL = Action level.

MCL = Maximum contaminant level.

MCLG = Maximum contaminant level goal.

MFL = Million fibers per liter.

mrem/year = millirems per year (a measure of radiation absorbed by the body).

NTU = Nephelometric turbidity units.

pCi/l = Picocuries per liter (a measure of radioactivity).

ppm = Parts per million, or milligrams per liter (mg/l).

ppb = Parts per billion, or micrograms per liter ( $\mu\text{g/l}$ ).

ppt = Parts per trillion, or nanograms per liter (ng/l).

ppq = Parts per quadrillion, or picograms per liter (pg/l).

TT = Treatment technique.

(c) The language in section 17 of this rule shall be used if there is a violation referenced in section 3 of this rule, and health effects language is required unless alternate language is listed in this subsection as follows:

(1) Fecal coliform/E. coli. Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with animal or human wastes. Microbes in these wastes can cause short term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.

(2) Fluoride. Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

*(Water Pollution Control Board; 327 IAC 8-2.1-6; filed Mar 22, 2000, 3:23 p.m.: 23 IR 1903; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1100; filed May 1, 2003, 12:00 p.m.: 26 IR 2822)*

### **327 IAC 8-2.1-7 Public notification of drinking water violations**

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9

**Affected:** IC 13-18-16

Sec. 7. (a) Each of the following owners or operators of a public water system must give notice for all violations of drinking water regulations and for other situations that are listed in subsection (b):

- (1) Community water systems.
- (2) Nontransient noncommunity water systems.
- (3) Transient noncommunity water systems.

(b) The following are violation categories and other situations that require a public notice:

- (1) The following drinking water violations:
  - (A) Failure to comply with an applicable maximum contaminant level (MCL) or maximum residual disinfectant level (MRDL).
  - (B) Failure to comply with a prescribed treatment technique (TT).
  - (C) Failure to perform water quality monitoring, as required by the drinking water regulations.
  - (D) Failure to comply with testing procedures as prescribed by a drinking water regulation.

(2) The following special public notices:

- (A) Occurrence of a waterborne disease outbreak or other waterborne emergency.
- (B) Exceedance of the nitrate MCL by noncommunity water systems (NCWS), where granted permission by the commissioner under 327 IAC 8-2-4(b).
- (C) Exceedance of the secondary maximum contami-

nant level (SMCL) for fluoride.

(D) Availability of unregulated contaminant monitoring data.

(E) Other violations and situations determined by the commissioner to require a public notice under this subdivision, not already listed.

(c) Public notice requirements are divided into three (3) tiers, to take into account the seriousness of the violation or situation and of any potential adverse health effects that may be involved. They are divided as follows:

(1) A Tier 1 public notice is required for drinking water violations and situations with significant potential to have serious adverse effects on human health as a result of short term exposure.

(2) Tier 2 public notice is required for all other drinking water violations and situations with potential to have serious adverse effects on human health.

(3) Tier 3 public notice required for all other drinking water violations and situations not included in Tier 1 and Tier 2.

(d) Public notification requirements are as follows:

(1) Each public water system must provide public notice to persons served by the water system.

(2) Public water systems that sell or otherwise provide drinking water to other public water systems are required to give public notice to the owner or operator of the consecutive system; the consecutive system is responsible for providing public notice to the persons it serves.

(3) If a public water system has a violation in a portion of the distribution system that is physically or hydraulically isolated from other parts of the distribution system, the commissioner may allow the system to limit distribution of the public notice to only persons served by that portion of the system which is out of compliance. Permission from the commissioner for limiting distribution of the notice must be granted in writing.

(4) A copy of the notice must also be sent to the commissioner, within ten (10) days of completion of each public notification. The public water system shall submit to the commissioner a representative copy of each type of notice distributed, published, posted, or made available to the persons served by the system and the media, where appropriate.

*(Water Pollution Control Board; 327 IAC 8-2.1-7; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1109)*

### **327 IAC 8-2.1-8 Tier 1 public notice; form, manner, and frequency of notice**

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9

**Affected:** IC 13-18-16

Sec. 8. (a) The following violations or situations require a Tier 1 public notice:

- (1) Violation of the MCL for total coliforms when fecal coliform or E. coli are present in the water distribution system as specified in 327 IAC 8-2-7(b), or the water system fails to test for fecal coliforms or E. coli when any repeat sample tests positive for coliform as specified in 327 IAC 8-2-8.3.
  - (2) Violation of the MCL for nitrate, nitrite, or total nitrate and nitrite, as defined in 327 IAC 8-2-4, or when the water system fails to take a confirmation sample within twenty-four (24) hours of the system's receipt of the first sample showing an exceedance of the nitrate or nitrite MCL, as specified in 327 IAC 8-2-4.1(h)(2).
  - (3) Exceedance of the nitrate MCL by noncommunity water systems, where permitted to exceed the MCL by the commissioner under 327 IAC 8-2-4.
  - (4) Violation of the 327 IAC 8-2-8.5(c) treatment technique requirement resulting from a single exceedance of the maximum allowable turbidity limit as identified in section 16 of this rule, where the commissioner determines after consultation that a Tier 1 notice is required or where consultation does not take place within twenty-four (24) hours after the system learns of the violation.
  - (5) Occurrence of a waterborne disease outbreak, as defined in 327 IAC 8-2-1, or other waterborne emergency. This includes failure or significant interruption in key water treatment processes, a natural disaster that disrupts the water supply or distribution system, or a chemical spill or unexpected loading of possible pathogens into the source water that significantly increases the potential for drinking water contamination.
  - (6) Other violations or situations with significant potential to have serious adverse effects on human health as a result of short term exposure, as determined by the commissioner either in its regulations or on a case-by-case basis.
  - (7) Violation of the MRDL for chlorine dioxide as defined in 327 IAC 8-2.5-3(a) and determined according to 327 IAC 8-2.5-5.
- (b) Tier 1 public notice needs to be provided as follows:
- (1) Provide a public notice as soon as practical but no later than twenty-four (24) hours after the system learns of the violation.
  - (2) Initiate consultation with the commissioner as soon as practical, but no later than twenty-four (24) hours after the public water system learns of the violation or situation, to determine additional public notice requirements.
  - (3) Comply with any additional public notification

requirements that are established as a result of the consultation with the commissioner, including any repeat notices or direction on the duration of the posted notices. To reach all persons served, such requirements may include:

- (A) timing;
  - (B) form;
  - (C) manner;
  - (D) frequency; and
  - (E) content of repeat notices and other actions designed.
- (4) Public water systems must provide the notice within twenty-four (24) hours in a form and manner reasonably calculated to reach all persons served. The form and manner used by the public water system are to fit the specific situation, but must be designed to reach residential, transient, and nontransient users of the water system. In order to reach all persons served, water systems are to use, at a minimum, one (1) or more of the following forms of delivery:
- (A) Appropriate broadcast media, such as:
    - (i) radio; or
    - (ii) television.
  - (B) Posting of the notice in conspicuous locations throughout the area served by the water system.
  - (C) Hand delivery of the notice to persons served by the water system.
  - (D) Another delivery method approved in writing by the commissioner.
- (5) A community public water system shall give a copy of the most recent public notice to all new billing units or new hookups prior to or at the time service begins for any of the following outstanding violations:
- (A) Any maximum contaminant level.
  - (B) Any maximum residual disinfectant level.
  - (C) Any treatment technique requirement.
  - (c) For violations of the MRDLs of disinfectants that may pose an acute risk to human health, a copy of the notice must be furnished to the radio and television stations serving the area served by the public water system as soon as possible but in no case later than seventy-two (72) hours after the violation. (*Water Pollution Control Board; 327 IAC 8-2.1-8; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1110; filed May 1, 2003, 12:00 p.m.: 26 IR 2828*)

**327 IAC 8-2.1-9 Tier 2 notice; form, manner, and frequency of notice**

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9  
**Affected:** IC 13-18-16

Sec. 9. (a) The following violations or situations

require a Tier 2 public notice:

(1) All violations of the MCL, MRDL, and treatment technique requirements, except where a Tier 1 notice is required under section 8(a) of this rule or where the commissioner determines a Tier 1 notice is required.

(2) Violations of the monitoring and testing procedure requirements, where the commissioner determines that a Tier 2 rather than a Tier 3 public notice is required, taking into account potential health impacts and persistence of the violation.

(b) Tier 2 public notice needs to be provided as follows:

(1) Public water systems must provide the public notice as soon as practical, but no later than thirty (30) days after the system learns of the violation. If the public notice is posted, the notice must remain in place for as long as the violation or situation persists, but in no case for less than seven (7) days, even if the violation or situation is resolved. The commissioner may, in appropriate circumstances, allow additional time for the initial notice of up to three (3) months from the date the system learns of the violation. It is not appropriate for the commissioner to grant an extension to the thirty (30) day deadline for any unresolved violation or to allow across-the-board extensions by rule or policy for other violations or situations requiring a Tier 2 public notice. Extensions granted by the commissioner must be in writing.

(2) The public water system must repeat the notice every three (3) months as long as the violation or situation persists, unless the commissioner determines that appropriate circumstances warrant a different repeat notice frequency. In no circumstance may the repeat notice be given less frequently than once per year. It is not appropriate for the commissioner to allow less frequent repeat notice for an MCL violation under the 327 IAC 8-2-7, 327 IAC 8-2-8, 327 IAC 8-2-8.1, and 327 IAC 8-2-8.3 or a treatment technique violation under 327 IAC 8-2-8.5, 327 IAC 8-2-8.6, and 327 IAC 8-2-8.8. The commissioner determinations allowing repeat notices to be given less frequently than once every three (3) months must be in writing.

(3) If there is a violation of the treatment technique requirement in 327 IAC 8-2-8.5(c) that results from a single exceedance of the maximum allowable turbidity limit, then public water systems must consult with the commissioner as soon as practical but no later than twenty-four (24) hours after the public water system learns of the violation, to determine whether a Tier 1 public notice under section 8(a) of this rule is required to protect public health. When consultation does not take place within the twenty-four (24) hour period, the water system must distribute a Tier 1 notice of the

violation within the next twenty-four (24) hours (for example, no later than forty-eight (48) hours after the system learns of the violation), following the requirements under section 8(b) and 8(c) of this rule.

(c) Public water systems must provide the initial public notice and any repeat notices in a form and manner that is reasonably calculated to reach persons served in the required time period. The form and manner of the public notice may vary based on the specific situation and type of water system, but it must at a minimum meet the following requirements:

(1) Unless directed otherwise by the commissioner in writing, community water systems must provide notice by the following methods:

(A) Mail or other direct delivery to each customer receiving a bill and to other service connections to which water is delivered by the public water system.  
 (B) Any other method reasonably calculated to reach other persons regularly served by the system, if they would not normally be reached by the notice required in clause (A). Such persons may include those who do not pay water bills or do not have service connection addresses, including any of the following:

- (i) House renters.
- (ii) Apartment dwellers.
- (iii) University students.
- (iv) Nursing home patients.
- (v) Prison inmates.

(C) Other methods may include any of the following:

- (i) Publication in a local newspaper.
- (ii) Delivery of multiple copies for distribution by customers that provide their drinking water to others, such as:
  - (AA) apartment building owners; or
  - (BB) large private employers.
- (iii) Posting in public places served by the system or on the Internet.
- (iv) Delivery to community organizations.

(2) Unless directed otherwise by the commissioner in writing, noncommunity water systems must provide notice by the following methods:

- (A) Posting the notice in conspicuous locations throughout the distribution system frequented by persons served by the system.
- (B) By mail or direct delivery to each customer and service connection if known.
- (C) Any other method reasonably calculated to reach other persons served by the system if they would not normally be reached by the notice required in clauses (A) and (B). Such persons may include those served who may not see a posted notice because the posted notice is not in a location they routinely pass by.

Other methods may include:

- (i) publication in a local newspaper or newsletter distributed to customers;
- (ii) use of e-mail to notify employees or students; or
- (iii) delivery of multiple copies in central locations, such as community centers.

*(Water Pollution Control Board; 327 IAC 8-2.1-9; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1110)*

**327 IAC 8-2.1-10 Tier 3 public notice; form, manner, and frequency of notice**

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9

**Affected:** IC 13-18-16

Sec. 10. (a) The following violations or situations require a Tier 3 public notice:

- (1) Monitoring violations under 327 IAC 8-2, except where a Tier 1 notice is required under section 8 of this rule or where the commissioner determines that a Tier 2 notice is required.
- (2) Failure to comply with a testing procedure established in 327 IAC 8-2, except where a Tier 1 notice is required under section 8(a) of this rule or where the commissioner determines that a Tier 2 notice is required.
- (3) Exceedance of the fluoride secondary maximum contaminant level (SMCL) as required under section 13 of this rule.

(b) Tier 3 public notice needs to be provided as follows:

- (1) Public water systems must provide the public notice not later than one (1) year after the public water system learns of the violation or situation. Following the initial notice, the public water system must repeat the notice annually for as long as the violation or other situation persists. If the public notice is posted, the notice must remain in place for as long as the violation or other situation persists, but in no case less than seven (7) days even if the violation or situation is resolved.
- (2) Instead of individual Tier 3 public notices, a public water system may use an annual report detailing all violations and situations that occurred during the previous twelve (12) months, as long as the timing requirements of subdivision (1) are met.

(c) Public water systems must provide the initial notice and any repeat notices in a form and manner that is reasonably calculated to reach persons served in the required time period. The form and manner of the public notice may vary based on the specific situation and type of water system, but it must, at a minimum, meet the following requirements:

(1) Unless directed otherwise by the commissioner in writing, community water systems must provide notice by the following methods:

- (A) Mail or other direct delivery to each customer receiving a bill and to other service connections to which water is delivered by the public water system.
- (B) Any other method reasonably calculated to reach other persons regularly served by the system, if they would not normally be reached by the notice required in clause (A). These persons may include those who do not pay water bills or do not have service connection addresses, such as any of the following:
  - (i) House renters.
  - (ii) Apartment dwellers.
  - (iii) University students.
  - (iv) Nursing home patients.
  - (v) Prison inmates.

(C) Other methods may include any of the following:

- (i) Publication in a local newspaper.
- (ii) Delivery of multiple copies for distribution by customers that provide their drinking water to others, such as:
  - (AA) apartment building owners; or
  - (BB) large private employers.
- (iii) Posting in public places or on the Internet.
- (iv) Delivery to community organizations.

(2) Unless directed otherwise by the commissioner in writing, noncommunity water systems must provide notice by the following methods:

- (A) Posting the notice in conspicuous locations throughout the distribution system frequented by persons served by the system, or by mail or direct delivery to each customer and service connection if known.
- (B) Any other method reasonably calculated to reach other persons served by the system, if they would not normally be reached by the notice required in item (i). Such persons may include those who may not see a posted notice because the notice is not in a location they routinely pass by. Other methods may include:
  - (i) publication in a local newspaper or newsletter distributed to customers;
  - (ii) use of e-mail to notify employees or students; or
  - (iii) delivery of multiple copies in central locations such as community centers.

(d) For community water systems, the Consumer Confidence Report (CCR) required under sections 1 through 6 of this rule may be used as a vehicle for the initial Tier 3 public notice and all required repeat notices as long as:

- (1) the CCR is provided to persons served no later than twelve (12) months after the system learns of the

violation or situation as required in this section;  
 (2) the Tier 3 notice contained in the CCR follows the content requirements under section 11 of this rule; and  
 (3) the CCR is distributed following the delivery requirements under subsection (c).

*(Water Pollution Control Board; 327 IAC 8-2.1-10; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1111)*

### **327 IAC 8-2.1-11 Contents of the public notice**

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9

**Affected:** IC 13-18-16

Sec. 11. (a) When a public water system violates a drinking water regulation or has a situation requiring public notification, each public notice must include the following elements:

- (1) A description of the violation or situation, including the contaminant or contaminants of concern and the contaminant level or levels as applicable.
- (2) When the violation or situation occurred.
- (3) Any potential adverse health effects from the violation or situation, including the standard language under subsection (c)(1) or (c)(2), whichever is applicable.
- (4) The population at risk, including subpopulations particularly vulnerable if exposed to the contaminant in their drinking water.
- (5) Whether alternative water supplies should be used.
- (6) What actions consumers should take, including when they should seek medical help, if known.
- (7) What the system is doing to correct the violation or situation.
- (8) When the water system expects to return to compliance or resolve the situation.
- (9) The name, business address, and phone number of the water system owner, operator, or designee of the public water system as a source of additional information concerning the notice.
- (10) A statement to encourage the notice recipient to distribute the public notice to other persons served, using the standard language under subsection (c)(3), where applicable.

(b) The following requirements need to be included when a public notice is presented:

- (1) Each public notice must do the following:
  - (A) Must be displayed in a conspicuous way when printed or posted.
  - (B) Must not contain overly technical language or very small print.
  - (C) Must not be formatted in a way that defeats the purpose of the notice.
  - (D) Must not contain language that nullifies the purpose of the notice.

(2) In communities with a large proportion of non-English speaking residents, in which twenty percent (20%) or more of the residents speak the same language other than English, the notice must contain information in the appropriate language or languages regarding the importance of the notice or contain a telephone number or address where such residents may contact the system to obtain a translated copy of the notice or assistance in the appropriate language or languages.

(c) Public water systems are required to include the following standard language in their public notice:

(1) Standard health effects language for MCL or MRDL violations and treatment technique violations. Public water systems must include in each public notice the health effects language specified in section 17 of this rule corresponding to each MCL, MRDL, and treatment technique violation listed in section 16 of this rule.

(2) Public water systems must include standard language in their notice about monitoring and testing procedure violations, including language necessary to fill in the blanks, for all monitoring and testing procedure violations listed in section 16 of this rule. The standard language must state, "We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During [compliance period], we "did not monitor or test" or "did not complete all monitoring or testing" for [contaminant(s)], and therefore cannot be sure of the quality of your drinking water during that time."

(3) Public water systems must include standard language in their notice to encourage the distribution of the public notice to all persons served. Where applicable, the standard language must state, "Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail."

*(Water Pollution Control Board; 327 IAC 8-2.1-11; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1112)*

### **327 IAC 8-2.1-12 Notice to new billing units or new customers**

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9

**Affected:** IC 13-18-16

Sec. 12. (a) Community water systems must give a copy of the most recent public notice for any continuing

violation or other ongoing situations requiring a public notice to all new billing units or new customers prior to or at the time service begins.

(b) Noncommunity water systems must continuously post the public notice in conspicuous locations in order to inform new consumers of any continuing violation or other situation requiring a public notice for as long as the violation or other situation persists. (*Water Pollution Control Board; 327 IAC 8-2.1-12; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1113*)

### **327 IAC 8-2.1-13 Special notice for exceedance of the SMCL for fluoride**

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9

**Affected:** IC 13-18-16

Sec. 13. (a) A community water system that exceeds the fluoride secondary maximum contaminant level (SMCL) of two (2) milligrams per liter as specified in 40 CFR § 143.3\*, determined by the last single sample taken in accordance with 327 IAC 8-2-4.1, but does not exceed the maximum contaminant level (MCL) of four (4) milligrams per liter for fluoride as specified in 327 IAC 8-2-4, must provide the public notice in subsection (c) to persons served. Public notice must be provided as soon as practical, but no later than twelve (12) months from the day the water system learns of the exceedance. A copy of the notice must also be sent to all new billing units and new customers at the time service begins and to the state public health officer. The public water system must repeat the notice at least annually for as long as the SMCL is exceeded. If the public notice is posted, the notice must remain in place for as long as the SMCL is exceeded, but in no case less than seven (7) days even if the exceedance is eliminated. On a case-by-case basis, the commissioner may require an initial notice sooner than twelve (12) months and repeat notices more frequently than annually.

(b) The form and manner of the public notice, including repeat notices, must follow the requirements for a Tier 3 public notice in section 10(c), 10(d)(1), and 10(d)(3) of this rule.

(c) The notice must contain the standard language, including the language necessary to fill in the blanks, that states, "This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine (9) years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than two (2) milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community water system [name] has a fluoride

concentration of [insert value] mg/l. Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine (9) should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water. Drinking water containing more than four (4) mg/L of fluoride (the U.S. Environmental Protection Agency's and Indiana Department of Environmental Management's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than four (4) mg/l of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed two (2) mg/l because of this cosmetic dental problem. For more information, please call [name of water system contact] of [name of community water system] at [phone number]. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP."

\*40 CFR 143.3 is incorporated by reference and is available for copying at the Indiana Department of Environmental Management, Office of Water Quality, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-2.1-13; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1113; errata filed Feb 22, 2002, 2:01 p.m.: 25 IR 2254*)

### **327 IAC 8-2.1-14 Special notice for nitrate exceedances above MCL by noncommunity water systems; granted permission by the commissioner under 327 IAC 8-2-4(b)**

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9

**Affected:** IC 13-18-16

Sec. 14. (a) The owner or operator of a noncommunity water system granted permission by the commissioner under 327 IAC 8-2-4(b) to exceed the nitrate MCL must provide notice to persons served according to the requirements for a Tier 1 notice under 327 IAC 8-2-8.1.

(b) Noncommunity water systems granted permission by the commissioner to exceed the nitrate MCL under 327 IAC 8-2-4(b) must provide continuous posting of:

(1) the fact that nitrate levels exceed ten (10) milligrams per liter; and

(2) the potential health effects of exposure;

in accordance with the requirements for Tier 1 notice delivery under section 8 of this rule and the content requirements under section 11 of this rule. (*Water Pollution Control Board; 327 IAC 8-2.1-14; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1114*)

**327 IAC 8-2.1-15 Notice by the commissioner on behalf of the public water system**

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9

**Affected:** IC 13-18-16

Sec. 15. (a) The commissioner may give the notice required by sections 7 through 14 of this rule, this

section, and sections 16 and 17 of this rule on behalf of the owner and operator of the public water system if the commissioner complies with this section.

(b) The owner or operator of the public water system remains responsible for ensuring that this section is met. (*Water Pollution Control Board; 327 IAC 8-2.1-15; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1114*)

**327 IAC 8-2.1-16 Drinking water violations; other situations requiring public notice**

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9

**Affected:** IC 13-18-16

Sec. 16. (a) Drinking water violations and other situations that require public notice according to this rule are contained in the following table:

Table 16. Drinking Water Violations and Other Situations Requiring Public Notice				
Contaminant	MCL/MRDL/TT/AL Violations		Monitoring and Testing Procedure Violations	
	Tier of Public Notice Required	Citation	Tier of Public Notice Required	Citation
<b>I. Violations of Drinking Water Regulations:</b>				
<b>A. Microbiological Contaminants</b>				
1. Total coliform	2	327 IAC 8-2-7(a)	3	327 IAC 8-2-8 327 IAC 8-2-8.1 327 IAC 8-2-8(f) 327 IAC 8-2-8.2 327 IAC 8-2-8.3
2. Fecal coliform/E. coli	1	327 IAC 8-2-7(b)	1, 3	327 IAC 8-2-8.3
3. Turbidity TT (resulting from a single exceedance of maximum allowable turbidity levels)	2,1	327 IAC 8-2-8.5(a) 327 IAC 8-2.6-3(1)(B) 327 IAC 8-2.6-3(2)	3	327 IAC 8-2-8.8(b) 327 IAC 8-2.6-4
4. Surface Water Treatment Rule violations, other than violations resulting from single exceedance of maximum allowable turbidity level (TT)	2	327 IAC 8-2-8.5 327 IAC 8-2-8.6	3	327 IAC 8-2-8.8
5. Interim Enhanced Surface Water Treatment Rule violations, other than violations resulting from single exceedance of maximum allowable turbidity level (TT)	2	327 IAC 8-2.6-1 327 IAC 8-2.6-2 327 IAC 8-2.6-3	3	327 IAC 8-2.6-2 327 IAC 8-2.6-4
6. Filter Backwash Recycling Rule	2	327 IAC 8-2.6-6	3	327 IAC 8-2.6-6
<b>B. Inorganic Chemicals (IOCs)</b>				
1. Antimony	2	327 IAC 8-2-4(d)	3	327 IAC 8-2-4.1(c) 327 IAC 8-2-4.1(e)

2. Arsenic	2	327 IAC 8-2-4(d) 327 IAC 8-2-4.1(l)(5)	3	327 IAC 8-2-4.1(c) 327 IAC 8-2-4.1(l)(3) 327 IAC 8-2-4.1(l)(4)
3. Asbestos (fibers >10 µm)	2	327 IAC 8-2-4(d)	3	327 IAC 8-2-4.1(c) 327 IAC 8-2-4.1(d)
4. Barium	2	327 IAC 8-2-4(d)	3	327 IAC 8-2-4.1(c) 327 IAC 8-2-4.1(e)
5. Beryllium	2	327 IAC 8-2-4(d)	3	327 IAC 8-2-4.1(c) 327 IAC 8-2-4.1(e)
6. Cadmium	2	327 IAC 8-2-4(d)	3	327 IAC 8-2-4.1(c) 327 IAC 8-2-4.1(e)
7. Chromium (total)	2	327 IAC 8-2-4(d)	3	327 IAC 8-2-4.1(c) 327 IAC 8-2-4.1(e)
8. Cyanide	2	327 IAC 8-2-4(d)	3	327 IAC 8-2-4.1(c) 327 IAC 8-2-4.1(e)
9. Fluoride	2	327 IAC 8-2-4(c)	3	327 IAC 8-2-4.1(c) 327 IAC 8-2-4.1(e)
10. Mercury (inorganic)	2	327 IAC 8-2-4(d)	3	327 IAC 8-2-4.1(c) 327 IAC 8-2-4.1(e)
11. Nitrate	1	327 IAC 8-2-4(b)	1, 3	327 IAC 8-2-4.1(c) 327 IAC 8-2-4.1(f) 327 IAC 8-2-4.1(h)(2)
12. Nitrite	1	327 IAC 8-2-4(b)	1, 3	327 IAC 8-2-4.1(c) 327 IAC 8-2-4.1(g) 327 IAC 8-2-4.1(h)(2)
13. Total Nitrate and Nitrite	1	327 IAC 8-2-4(b)	3	327 IAC 8-2-4.1(c)
14. Selenium	2	327 IAC 8-2-4(d)	3	327 IAC 8-2-4.1(c) 327 IAC 8-2-4.1(e)
15. Thallium	2	327 IAC 8-2-4(d)	3	327 IAC 8-2-4.1(c) 327 IAC 8-2-4.1(e)
<b>C. Lead and Copper Rule</b>				
1. Lead and Copper Rule (TT)	2	327 IAC 8-2-36 327 IAC 8-2-40 327 IAC 8-2-41 327 IAC 8-2-42 327 IAC 8-2-43 327 IAC 8-2-44	3	327 IAC 8-2-37 327 IAC 8-2-38 327 IAC 8-2-39 327 IAC 8-2-45
<b>D. Synthetic Organic Chemicals (SOCs)</b>				
1. 2,4-D	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
2. 2,4,5-TP (Silvex)	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
3. Alachlor	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
4. Atrazine	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
5. Benzo(a)pyrene (PAHs)	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
6. Carbofuran	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
7. Chlordane	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
8. Dalapon	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
9. Di (2-ethylhexyl) adipate	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
10. Di (2-ethylhexyl) phthalate	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
11. Dibromochloropropane	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
12. Dinoseb	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1

13. Dioxin (2,3,7,8-TCDD)	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
14. Diquat	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
15. Endothall	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
16. Endrin	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
17. Ethylene dibromide	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
18. Glyphosate	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
19. Heptachlor	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
20. Heptachlor epoxide	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
21. Hexachlorobenzene	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
22. Hexachlorocyclopentadiene	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
23. Lindane	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
24. Methoxychlor	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
25. Oxamyl (Vydate)	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
26. Pentachlorophenol	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
27. Picloram	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
28. Polychlorinated biphenyls (PCBs)	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
29. Simazine	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
30. Toxaphene	2	327 IAC 8-2-5(a)	3	327 IAC 8-2-5.1
E. Volatile Organic Chemicals (VOCs)				
1. Benzene	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
2. Carbon tetrachloride	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
3. Chlorobenzene (monochlorobenzene)	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
4. o-Dichlorobenzene	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
5. p-Dichlorobenzene	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
6. 1,2-Dichloroethane	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
7. 1,1-Dichloroethylene	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
8. cis-1,2-Dichloroethylene	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
9. trans-1,2-Dichloroethylene	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
10. Dichloromethane	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
11. 1,2-Dichloropropane	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
12. Ethylbenzene	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
13. Styrene	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
14. Tetrachloroethylene	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
15. Toluene	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
16. 1,2,4-Trichlorobenzene	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
17. 1,1,1-Trichloroethane	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
18. 1,1,2-Trichloroethane	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
19. Trichloroethylene	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
20. Vinyl chloride	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
21. Xylenes (total)	2	327 IAC 8-2-5.4(a)	3	327 IAC 8-2-5.5
F. Radioactive Contaminants				
1. Beta/photon emitters	2	327 IAC 8-2-10	3	327 IAC 8-2-10.2 327 IAC 8-2-10.2(b)
2. Alpha emitters	2	327 IAC 8-2-9(2)	3	327 IAC 8-2-10.2 327 IAC 8-2-10.2(a)
3. Combined radium (226 and 228)	2	327 IAC 8-2-9(1)	3	327 IAC 8-2-10.2 327 IAC 8-2-10.2(a)

G. Disinfection Byproducts (DBPs). Where disinfection is used in the treatment of drinking water, disinfectants combine with organic and inorganic matter present in water to form chemicals called disinfection byproducts (DBPs). EPA sets standards for controlling the levels of DBPs in drinking water.				
1. Total trihalomethanes (TTHMs)	2	327 IAC 8-2-5(a) and 327 IAC 8-2-5(c)	3	327 IAC 8-2-5.3
2. Haloacetic acids (HAA5)	2	327 IAC 8-2.5-2(a)	3	327 IAC 8-2.5-6(a) and 327 IAC 8-2.5-6(b)
3. Bromate	2	327 IAC 8-2.5-2(a)	3	327 IAC 8-2.5-6(a) and 327 IAC 8-2.5-6(b)
4. Chlorite	2	327 IAC 8-2.5-2(a)	3	327 IAC 8-2.5-6(a) and 327 IAC 8-2.5-6(b)
5. Chlorine (MRDL)	2	327 IAC 8-2.5-3(a)	3	327 IAC 8-2.5-6(a) and 327 IAC 8-2.5-6(c)
6. Chloramine (MRDL)	2	327 IAC 8-2.5-3(a)	3	327 IAC 8-2.5-6(a) and 327 IAC 8-2.5-6(c)
7. Chlorine dioxide (MRDL), where any 2 consecutive daily samples at entrance to distribution system only are above MRDL	2	327 IAC 8-2.5-3(a)	2, 3	327 IAC 8-2.5-6(a), 327 IAC 8-2.5-6(c), and 327 IAC 8-2.5-7(c)(2)
8. Chlorine dioxide (MRDL), where samples in distribution system the next day are also above MRDL	1	327 IAC 8-2.5-3(a)	1	327 IAC 8-2.5-6(a), 327 IAC 8-2.5-6(c), and 327 IAC 8-2.5-7(c)(2)
9. Control of DBP precursors - TOC (TT)	2	327 IAC 8-2.5-9(a) and 327 IAC 8-2.5-9(b)	3	327 IAC 8-2.5-6(a) and 327 IAC 8-2.5-6(d)
10. Bench marking and disinfection profiling	N/A	N/A	3	327 IAC 8-2.6-2
11. Development of monitoring plan	N/A	N/A	3	327 IAC 8-2.5-6(f)
H. Other Treatment Techniques				
1. Acrylamide (TT)	2	327 IAC 8-2-35	N/A	N/A
2. Epichlorohydrin (TT)	2	327 IAC 8-2-35	N/A	N/A
II. Unregulated Contaminant Monitoring:				
A. Nickel	N/A	N/A	3	327 IAC 8-2-4.1(e)
III. Other Situations Requiring Public Notification:				
A. Fluoride secondary maximum contaminant level (SMCL) exceedance	3	40 CFR § 143.3*	N/A	N/A
B. Exceedance of nitrate MCL for noncommunity systems, as allowed by the commissioner	1	327 IAC 8-2-4(b)	N/A	N/A
C. Waterborne disease outbreak	1	327 IAC 8-2-1	N/A	N/A
D. Other waterborne emergency	1	N/A	N/A	N/A
E. Other situations as determined by the commissioner	1, 2, 3	N/A	N/A	N/A

Key:

MCL = Maximum contaminant level

TT = Treatment technique

Violations of drinking water regulations include violations of MCL, MRDL, treatment technique, monitoring, and testing procedure requirements.

(b) Drinking water violations and other situations that require public notice according to this rule are contained in the following provisions:

(1) Violations and other situations not listed in table 16 in subsection (a), such as reporting violations and failure to prepare Consumer Confidence Report do not require notice, unless otherwise determined by the commissioner. The commissioner may, at their option, also require a more stringent public notice tier such as Tier 1 instead of Tier 2 or Tier 2 instead of Tier 3 for specific violations and situations listed in table 16 in subsection (a).

(2) Failure to test for fecal coliform or E. coli is a Tier 1 violation if testing is not done after any repeat sample tests positive for coliform. All other total coliform monitoring and testing procedure violations are Tier 3.

(3) Systems with treatment technique violations involving a single exceedance of maximum turbidity limit under the surface water treatment rule (SWTR) are required to initiate consultation with the commissioner within twenty-four (24) hours after learning of the violation. Based on this consultation, the commissioner may subsequently decide to elevate the violation to Tier 1. If a system is unable to make contact with the commissioner in the twenty-four (24) hour period, the violation is automatically elevated to Tier 1.

(4) Failure to take a confirmation sample within twenty-four (24) hours for nitrate or nitrite after an initial sample exceeds the MCL is a Tier 1 Violation. Other monitoring violations for nitrate are Tier 3.

(5) Other waterborne emergencies require a Tier 1 public notice under section 8(a) of this rule for situations that do not meet the definition of a waterborne

disease outbreak given in 327 IAC 8-2-1, but that still have the potential to have serious adverse effects on health as a result of short-term exposure. These could include outbreaks not related to treatment deficiencies, as well as situations that have the potential to cause outbreaks, such as failures or significant interruption in water treatment processes, natural disasters that disrupt the water supply or distribution system, chemical spills, or unexpected loading of possible pathogens into the source water.

(6) The commissioner may place other situations in any tier believed appropriate, based on threat to public health.

\*40 CFR 143.3 is incorporated by reference and is available for copying at the Indiana Department of Environmental Management, Office of Water Quality, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-2.1-16; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1115; errata filed Feb 22, 2002, 2:01 p.m.: 25 IR 2254; filed May 1, 2003, 12:00 p.m.: 26 IR 2829*)

**327 IAC 8-2.1-17 Drinking water violations; standard health effects language for public notice**

**Authority:** IC 13-13-5-1; IC 13-13-5-2; IC 13-18-16-6; IC 13-18-16-7; IC 13-18-16-9

**Affected:** IC 13-18-16

Sec. 17. A public water system must comply with the standard health effects language for public notification contained in the following table:

Table 17. Standard Health Effects Language for Public Notification			
Contaminant	MCLG mg/L	MCL mg/L	Standard Health Effects Language for Public Notification
<b>Drinking Water Regulations:</b>			
<b>A. Microbiological Contaminants, Surface Water Treatment Rule, and Interim Enhanced Surface Water Treatment Rule</b>			
1a. Total coliform	0	See footnote	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
1b. Fecal coliform/E. coli	0	0	Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.

2a. Turbidity (MCL)	None	1 NTU/ 5 NTU	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.
2b. Turbidity (SWTR TT) and (IESWTR TT)	None	TT	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.
2c. Giardia lamblia  2d. Viruses 2e. Heterotrophic plate county (HPC) bacteria 2f. Legionella 2g. Cryptosporidium	0	TT	Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms, such as nausea, cramps, diarrhea, and associated headaches.
<b>B. Inorganic Chemicals (IOCs)</b>			
3. Antimony	0.006	0.006	Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.
4. Arsenic	None	0.05	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
5. Asbestos (>10 µm)	7 MFL	7 MFL	Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.
6. Barium	2	2	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
7. Beryllium	0.004	0.004	Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.
8. Cadmium	0.005	0.005	Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.
9. Chromium (total)	0.1	0.1	Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.
10. Cyanide	0.2	0.2	Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.
11. Fluoride	4.0	4.0	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine (9) years old. Mottling, also known as dental fluorosis, may include brown staining or pitting of the teeth, or both, and occurs only in developing teeth before they erupt from the gums.

12. Mercury (inorganic)	0.002	0.002	Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.
13. Nitrate	10	10	Infants below the age of six (6) months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
14. Nitrite	1	1	Infants below the age of six (6) months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
15. Total Nitrate and Nitrite	10	10	Infants below the age of six (6) months who drink water containing nitrate and nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
16. Selenium	0.05	0.05	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.
17. Thallium	0.0005	0.002	Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.
<b>C. Lead and Copper Rule</b>			
18. Lead	0	TT	Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
19. Copper	1.3	TT	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
<b>D. Synthetic Organic Chemicals (SOCs)</b>			
20. 2,4-D	0.07	0.07	Some people who drink water containing the weed killer 2,4-D well in excess of the MCL over many years could experience problems with their kidneys, liver, or adrenal glands.
21. 2,4,5-TP (Silvex)	0.05	0.05	Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.
22. Alachlor	0	0.002	Some people who drink water containing alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.
23. Atrazine	0.003	0.003	Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.
24. Benzo(a)pyrene (PAHs)	0	0.0002	Some people who drink water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.

25. Carbofuran	0.04	0.04	Some people who drink water containing carbofuran in excess of the MCL over many years could experience problems with their blood, or nervous or reproductive systems.
26. Chlordane	0	0.002	Some people who drink water containing chlordane in excess of the MCL over many years could experience problems with their liver or nervous system, and may have an increased risk of getting cancer.
27. Dalapon	0.2	0.2	Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.
28. Di (2-ethylhexyl) adipate	0.4	0.4	Some people who drink water containing di (2-ethylhexyl) adipate well in excess of the MCL over many years could experience general toxic effects or reproductive difficulties.
29. Di (2-ethylhexyl) phthalate	0	0.006	Some people who drink water containing di (2-ethylhexyl) phthalate in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.
30. Dibromochloropropane (DBCP)	0	0.0002	Some people who drink water containing DBCP in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
31. Dinoseb	0.007	0.007	Some people who drink water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.
32. Dioxin (2,3,7,8-TCDD)	0	$3 \times 10^{-8}$	Some people who drink water containing dioxin in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
33. Diquat	0.02	0.02	Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.
34. Endothall	0.1	0.1	Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.
35. Endrin	0.002	0.002	Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.
36. Ethylene dibromide	0	0.00005	Some people who drink water containing ethylene dibromide in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, or kidneys, and may have an increased risk of getting cancer.
37. Glyphosate	0.7	0.7	Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.
38. Heptachlor	0	0.0004	Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.
39. Heptachlor epoxide	0	0.0002	Some people who drink water containing heptachlor epoxide in excess of the MCL over many years could experience liver damage, and may have an increased risk of getting cancer.
40. Hexachlorobenzene	0	0.001	Some people who drink water containing hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys, or adverse reproductive effects, and may have an increased risk of getting cancer.
41. Hexachlorocyclopentadiene	0.05	0.05	Some people who drink water containing hexachlorocyclopentadiene well in excess of the MCL over many years could experience problems with their kidneys or stomach.

42. Lindane	0.0002	0.0002	Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.
43. Methoxychlor	0.04	0.04	Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.
44. Oxamyl (Vydate)	0.2	0.2	Some people who drink water containing oxamyl in excess of the MCL over many years could experience slight nervous system effects.
45. Pentachlorophenol	0	0.001	Some people who drink water containing pentachlorophenol in excess of the MCL over many years could experience problems with their liver or kidneys, and may have an increased risk of getting cancer.
46. Picloram	0.5	0.5	Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.
47. Polychlorinated bi-phenyls (PCBs)	0	0.0005	Some people who drink water containing PCBs in excess of the MCL over many years could experience changes in their skin, problems with their thymus gland, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.
48. Simazine	0.004	0.004	Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.
49. Toxaphene	0	0.003	Some people who drink water containing toxaphene in excess of the MCL over many years could have problems with their kidneys, liver, or thyroid, and may have an increased risk of getting cancer.
E. Volatile Organic Chemicals (VOCs)			
50. Benzene	0	0.005	Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.
51. Carbon tetrachloride	0	0.005	Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
52. Chlorobenzene (monochlorobenzene)	0.1	0.1	Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.
53. o-Dichlorobenzene	0.6	0.6	Some people who drink water containing o-dichlorobenzene well in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory systems.
54. p-Dichlorobenzene	0.075	0.075	Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia, damage to their liver, kidneys, or spleen, or changes in their blood.
55. 1,2-Dichloroethane	0	0.005	Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.
56. 1,1-Dichloroethylene	0.007	0.007	Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
57. cis-1,2-Dichloroethylene	0.07	0.07	Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
58. trans-1,2-Dichloroethylene	0.1	0.1	Some people who drink water containing trans-1,2-dichloroethylene well in excess of the MCL over many years could experience problems with their liver.

59. Dichloromethane	0	0.005	Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.
60. 1,2-Dichloropropane	0	0.005	Some people who drink water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.
61. Ethylbenzene	0.7	0.7	Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.
62. Styrene	0.1	0.1	Some people who drink water containing styrene well in excess of the MCL over many years could have problems with their liver, kidneys, or circulatory system.
63. Tetrachloroethylene	0	0.005	Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.
64. Toluene	1	1	Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.
65. 1,2,4-Trichlorobenzene	0.07	0.07	Some people who drink water containing 1,2,4-trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.
66. 1,1,1-Trichloroethane	0.2	0.2	Some people who drink water containing 1,1,1-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.
67. 1,1,2-Trichloroethane	0.003	0.005	Some people who drink water containing 1,1,2-trichloroethane well in excess of the MCL over many years could have problems with their liver, kidneys, or immune systems.
68. Trichloroethylene	0	0.005	Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
69. Vinyl chloride	0	0.002	Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.
70. Xylenes (total)	10	10	Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.
<b>F. Radioactive Contaminants</b>			
71. Beta/photon emitters	0	4 mrem/yr	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.
72. Alpha emitters	0	15 pCi/L	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
73. Combined radium (226 and 228)	0	5 pCi/L	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
G. Disinfection Byproducts (DBPs): Where disinfection is used in the treatment of drinking water, disinfectants combine with organic and inorganic matter present in water to form chemicals called disinfection byproducts (DBPs). EPA sets standards for controlling the levels of disinfectants and DBPs in drinking water.			

74. Total trihalomethanes (TTHMs)	N/A	0.10/ 0.080	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.
75. Haloacetic acids (HAA)	N/A	0.060	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
76. Bromate	0	0.010	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.
77. Chlorite	0.08	1.0	Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.
78. Chlorine	4 MRDLG	4.0 MRDL	Some people who use drinking water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.
79. Chloramines	4 MRDLG	4.0 MRDL	Some people who use drinking water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.
80a. Chlorine dioxide, where any 2 consecutive daily samples taken at the entrance to the distribution system are above the MRDL	0.8 MRDLG	0.8 MRDL	Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia. Add for public notification only: The chlorine dioxide violations reported today are the result of exceedances at the treatment facility only, not within the distribution system that delivers water to consumers. Continued compliance with chlorine dioxide levels within the distribution system minimizes the potential risk of these violations to consumers.
80b. Chlorine dioxide, where one or more distribution system samples are above the MRDL	0.8 MRDLG	0.8 MRDL	Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia. Add for public notification only: The chlorine dioxide violations reported today include exceedances of the EPA standard within the distribution system which delivers water to consumers. Violations of the chlorine dioxide standard within the distribution system may harm human health based on short term exposures. Certain groups, including fetuses, infants, and young children, may be especially susceptible to nervous system effects from excessive chlorine dioxide exposure.

81. Control of DBP precursors (TOC)	None	TT	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney [ <i>sic.</i> ] problems, or nervous system effects, and may lead to an increased risk of getting cancer.
H. Other Treatment Techniques			
82. Acrylamide	0	TT	Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have an increased risk of getting cancer.
83. Epichlorohydrin	0	TT	Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.

## Key:

MCLG - Maximum contaminant level goal

MCL - Maximum contaminant level

NTU - Nephelometric turbidity unit

TT - Treatment technique

MFL - Millions of fiber per liter

Action Level (Lead) = 0.015 mg/L

Action Level (Copper) = 1.3 mg/L

mrem - millirems per year

ppq - picocuries per liter

(1) For water systems analyzing at least forty (40) samples per month, no more than five percent (5.0%) of the monthly samples may be positive for total coliforms. For systems analyzing fewer than forty (40) samples per month, no more than one (1) sample per month may be positive for total coliforms.

(2) The bacteria detected by heterotrophic plate count (HPC) are not necessarily harmful. HPC is simply an alternative method of determining disinfectant residual levels. The number of such bacteria is an indicator of whether there is enough disinfectant in the distribution system.

(3) SWTR treatment technique violations that involve turbidity exceedances may use the health effects language for turbidity instead.

(4) The bacteria detected by heterotrophic plate count (HPC) are not necessarily harmful. HPC is simply an alternative method of determining disinfectant residual levels. The number of such bacteria is an indicator of whether there is enough disinfectant in the distribution system.

(5) The MCL for total trihalomethanes is the sum of the concentrations of the individual trihalomethanes.

*(Water Pollution Control Board; 327 IAC 8-2.1-17; filed Nov 20, 2001, 10:20 a.m.: 25 IR 1118; errata filed Feb 22, 2002, 2:01 p.m.: 25 IR 2254; filed May 1, 2003, 12:00 p.m.: 26 IR 2833)*

**Rule 2.5. Disinfectants and Disinfection**

- 327 IAC 8-2.5-1 Maximum residual disinfectant level goals; disinfectants
- 327 IAC 8-2.5-2 Maximum contaminant levels; disinfection byproducts
- 327 IAC 8-2.5-3 Maximum residual disinfectant levels
- 327 IAC 8-2.5-4 General requirements; disinfectant residuals, disinfection byproducts, and disinfection byproducts precursors
- 327 IAC 8-2.5-5 Analytical requirements; disinfectant residuals, disinfection byproducts, and disinfection byproducts precursors
- 327 IAC 8-2.5-6 Monitoring requirements; disinfectant residuals, disinfection byproducts, and disinfection byproducts precursors
- 327 IAC 8-2.5-7 Compliance requirements; disinfectants and disinfection byproducts
- 327 IAC 8-2.5-8 Reporting and record keeping requirements; disinfectants and disinfection byproducts
- 327 IAC 8-2.5-9 Treatment techniques for control of disinfection byproducts precursors

**327 IAC 8-2.5-1 Maximum residual disinfectant level goals; disinfectants**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2

**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 1. MRDLGs for disinfectants are as follows:

Disinfectant Residual      MRDLG (mg/L)

Chlorine	4.0 (as Cl <sub>2</sub> )
Chloramines	4.0 (as Cl <sub>2</sub> )
Chlorine dioxide	0.8 (as ClO <sub>2</sub> )

(Water Pollution Control Board; 327 IAC 8-2.5-1; filed May 1, 2003, 12:00 p.m.: 26 IR 2840)

**327 IAC 8-2.5-2 Maximum contaminant levels; disinfection byproducts**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2

**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 2. (a) The MCLs for disinfection byproducts are as follows:

Disinfection Byproduct      MCL (mg/L)

Total trihalomethanes (TTHM)	0.080
Haloacetic acids (five) (HAA5)	0.060
Bromate	0.010
Chlorite	1.0

(b) A system that is installing GAC or membrane technology to comply with this section may apply to the commissioner for an extension of up to twenty-four (24) months past the dates in section 4(b) of this rule, but not later than December 31, 2003. In granting the extension, the commissioner shall set a schedule for compliance and may specify any interim measures that the system must take.

(c) The commissioner hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for disinfection byproducts identified in subsection (a):

Disinfection By-product

<u>Disinfection By-product</u>	<u>Best Available Technology</u>
TTHM	Enhanced coagulation or enhanced softening or GAC10, with chlorine as the primary and residual disinfectant.
HAA5	Enhanced coagulation or enhanced softening or GAC10, with chlorine as the primary and residual disinfectant.
Bromate	Control of ozone treatment process to reduce production of bromate.
Chlorite	Control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels.

(Water Pollution Control Board; 327 IAC 8-2.5-2; filed May 1, 2003, 12:00 p.m.: 26 IR 2840)

**327 IAC 8-2.5-3 Maximum residual disinfectant levels**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2

**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 3. (a) MRDLs are as follows:

Disinfectant Residual      MRDL (mg/L)

Chlorine	4.0 (as Cl <sub>2</sub> )
Chloramines	4.0 (as Cl <sub>2</sub> )
Chlorine dioxide	0.8 (as ClO <sub>2</sub> )

(b) The commissioner hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the MRDLs identified in subsection (a):

(1) Control of treatment processes to reduce disinfectant demand.

(2) Control of disinfection treatment processes to reduce disinfectant levels.

(Water Pollution Control Board; 327 IAC 8-2.5-3; filed May 1, 2003, 12:00 p.m.: 26 IR 2840)

**327 IAC 8-2.5-4 General requirements; disinfectant residuals, disinfection byproducts, and disinfection byproducts precursors**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2

**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 4. (a) The general requirements for disinfectant residuals, disinfection byproducts, and disinfection byproducts precursors are as follows:

(1) A CWS or an NTNCWS, which adds a chemical disinfectant to the water in any part of the drinking water treatment process, shall modify its practices to meet MCLs and MRDLs in sections 2(a) and 3(a) of this rule, respectively, and shall meet the treatment technique requirements for disinfection byproduct precursors in section 9 of this rule.

(2) A TWS that uses chlorine dioxide as a disinfectant or oxidant shall modify its practices to meet the MRDL for chlorine dioxide in section 3(a) of this rule.

(b) Compliance dates for CWSs and NTNCWSs are as follows:

(1) A subpart H system serving a population of ten thousand (10,000) or more individuals shall comply with this section upon the effective date of this rule.

(2) A subpart H system serving a population of fewer than ten thousand (10,000) individuals and a system using only ground water not under the direct influence of surface water shall comply with this section beginning January 1, 2004.

(c) Compliance dates for TWSs are as follows:

(1) A subpart H system serving a population of ten thousand (10,000) or more individuals and using chlorine dioxide as a disinfectant or oxidant shall comply with requirements for chlorine dioxide in this section upon the effective date of this rule.

(2) A subpart H system serving a population of fewer than ten thousand (10,000) individuals and using chlorine dioxide as a disinfectant or oxidant and a system using only ground water not under the direct influence of surface water and using chlorine dioxide as a disinfectant or oxidant shall comply with requirements for chlorine dioxide in this section beginning January 1, 2004.

(d) A CWS or a NTNCWS regulated under subsection (a) must be operated by qualified personnel who meet the requirements specified by 327 IAC 8-12.

(e) Notwithstanding the MRDLs in section 3 of this rule, systems may increase residual disinfectant levels in the distribution system of chlorine or chloramines, but not chlorine dioxide, to a level and for a time necessary to protect public health and to address specific microbiological contamination problems caused by circumstances, including the following:

- (1) Distribution line breaks.
- (2) Storm water run-off events.
- (3) Source water contamination events.
- (4) Cross-connection events.

*(Water Pollution Control Board; 327 IAC 8-2.5-4; filed May 1, 2003, 12:00 p.m.: 26 IR 2840)*

**327 IAC 8-2.5-5 Analytical requirements; disinfectant residuals, disinfection byproducts, and disinfection byproducts precursors**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2

**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 5. (a) Systems shall use only one (1) or more of the analytical methods specified in this subsection. These methods are incorporated by reference and may be obtained as follows:

(1) EPA Method 552.1 is in Methods for the Determination of Organic Compounds in Drinking Water-Supplement II, U.S. EPA, August 1992, EPA/600/R-92/129 (available through National Information Technical Service (NTIS), PB92-207703).

(2) EPA Methods 502.2, 524.2, 551.1, and 552.2 are in Methods for the Determination of Organic Compounds in Drinking Water-Supplement III, U.S. EPA, August 1995, EPA/600/R-95/131 (available through NTIS,

PB95-261616).

(3) EPA Methods 300.0 and 150.1 are in Methods for the Determination of Inorganic Substances in Environmental Samples, U.S. EPA, August 1993, EPA/600/R-93/100 (available through NTIS, PB94-121811).

(4) EPA Method 300.1 is in USEPA Method 300.1, Determination of Inorganic Anions in Drinking Water by Ion Chromatography, Revision 1.0, U.S. EPA, 1997, EPA/600/R-98/118 (available through NTIS, PB98-169196); also available from: Chemical Exposure Research Branch, Microbiological & Chemical Exposure Assessment Research Division, National Exposure Research Laboratory, U.S. Environmental Protection Agency, Cincinnati, Ohio 45268, fax number: 513-569-7757, phone number: 513-569-7586.

(5) Standard Methods 4500-Cl D, 4500-Cl E, 4500-Cl F, 4500-Cl G, 4500-Cl H, 4500-Cl I, 4500-ClO<sub>2</sub> D, 4500-ClO<sub>2</sub> E, 4500-H<sup>+</sup> B, 6251 B, and 5910 B shall be followed in accordance with Standard Methods for the Examination of Water and Wastewater, 19th Edition, American Public Health Association, 1995. Copies may be obtained from the American Public Health Association, 1015 Fifteenth Street, NW, Washington, D.C. 20005.

(6) Standard Methods 5310 B, 5310 C, and 5310 D shall be followed in accordance with the Supplement to the 19<sup>th</sup> Edition of Standard Methods for the Examination of Water and Wastewater, American Public Health Association, 1996. Copies may be obtained from the American Public Health Association, 1015 Fifteenth Street, NW, Washington, D.C. 20005.

(7) ASTM Methods D 1253-86 and D1293-95 shall be followed in accordance with the Annual Book of ASTM Standards, Volume 11.01, American Society for Testing and Materials, 1996 edition. Copies may be obtained from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken [sic.], Pennsylvania 19428.

These methods are also available for copying at the Indiana Department of Environmental Management, Office of Water Quality, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

(b) Analytical requirements for disinfection byproducts are as follows:

(1) Systems shall measure disinfection byproducts by the methods, as modified by the footnotes, listed in the following table:

APPROVED METHODS FOR DISINFECTION BYPRODUCT COMPLIANCE MONITORING  
Byproduct Measured<sup>1</sup>

Methodology <sup>2</sup>	EPA Method	Standard Method	TTHM	HAA5	Chlorite <sup>4</sup>	Bromate
P&T/GC/EICD & PID	502.2 <sup>3</sup>		X			
P&T/GC/MS	524.2		X			
LLE/GC/ECD	551.1		X			
LLE/GC/ECD		6251 B		X		
SPE/GC/ECD	552.1			X		
LLE/GC/ECD	552.2			X		
Amperometric Titration		4500-CIO <sub>2</sub> E			X	
IC	300.0				X	
IC	300.1				X	X

<sup>1</sup>X indicates method is approved for measuring specified disinfection byproduct.

<sup>2</sup>P&T = purge and trap; GC = gas chromatography; EICD = electrolytic conductivity detector; PID = photoionization detector; MS = mass spectrometer; LLE = liquid/liquid extraction; ECD = electron capture detector; SPE = solid phase extractor; IC = ion chromatography.

<sup>3</sup>If TTHMs are the only analytes being measured in the sample, then a PID is not required.

<sup>4</sup>Amperometric titration may be used for routine daily monitoring of chlorite at the entrance to the distribution system, as prescribed in section 6(b)(2)(A)(i) of this rule. Ion chromatography must be used for routine monthly monitoring of chlorite and additional monitoring of chlorite in the distribution system, as prescribed in section 6(b)(2)(A)(ii) and 6(b)(2)(B) of this rule.

(2) Analysis under this subsection for disinfection byproducts must be conducted by laboratories that have received certification by the commissioner, except as specified under subdivision (3). To receive certification to conduct analyses for the contaminants in section 2(a) of this rule, the laboratory must carry out annual analyses of performance evaluation (PE) samples approved by the commissioner. In these analyses of PE samples, the laboratory must achieve quantitative results within the acceptance limit on a minimum of eighty percent (80%) of the analytes included in each PE sample. The acceptance limit is defined as the ninety-five percent (95%) confidence interval calculated around the mean of the PE study

data between a maximum and minimum acceptance limit of plus or minus fifty percent (50%) and plus or minus fifteen percent (15%) of the study mean.

(3) A certified operator or other party as approved by the commissioner shall measure daily chlorite samples at the entrance to the distribution system.

(c) Analytical requirements for disinfectant residuals are as follows:

(1) A system shall measure residual disinfectant concentrations for free chlorine, combined chlorine (chloramines), and chlorine dioxide by the methods listed in the following table:

APPROVED METHODS FOR DISINFECTANT RESIDUAL COMPLIANCE MONITORING  
Residual Measured<sup>1</sup>

Methodology	Standard Method	ASTM Method	Free Chlorine	Combined Chlorine	Total Chlorine	Chlorine Dioxide
Amperometric Titration	4500-Cl D	D 1253-86	X	X	X	
Low Level Amperometric Titration	4500-Cl E				X	

DPD <sup>2</sup> Ferrous Titrimetric	4500-Cl F		X	X	X	
DPD <sup>2</sup> Colorimetric	4500-Cl G		X	X	X	
Syringaldazine (FACTS)	4500-Cl H		X			
Iodometric Electrode	4500-Cl I				X	
DPD <sup>2</sup>	4500-ClO <sub>2</sub> D					X
Amperometric Method II	4500-ClO <sub>2</sub> E					X

<sup>1</sup>X indicates method is approved for measuring specified disinfectant residual.

<sup>2</sup>DPD means N,N-diethyl-4-phenylene diamine.

(2) If approved by the commissioner, a system may also measure residual disinfectant concentrations for chlorine, chloramines, and chlorine dioxide by using DPD colorimetric test kits.

(3) Residual disinfectant concentration may be measured only by a certified operator or a party approved by the commissioner.

(d) Systems required to analyze parameters not included in subsections (b) and (c) shall use the following methods:

(1) All methods allowed in 327 IAC 8-2-45 for measuring alkalinity and pH.

(2) For bromide, EPA Method 300.0 or EPA Method 300.1.

(3) A system shall use one (1) or all of the following methods for TOC:

(A) Standard Method 5310 B (High-Temperature Combustion Method).

(B) Standard Method 5310 C (Persulfate-Ultraviolet or Heated-Persulfate Oxidation Method).

(C) Standard Method 5310 D (Wet-Oxidation Method).

TOC samples may not be filtered prior to analysis. TOC samples must either be analyzed or must be acidified to achieve pH less than two (2.0) by minimal addition of phosphoric or sulfuric acid as soon as practical after sampling, not to exceed twenty-four (24) hours. Acidified TOC samples must be analyzed within twenty-eight (28) days.

(4) SUVA means specific ultraviolet absorption at two hundred fifty-four (254) nanometers, an indicator of the humic content of water. It is a calculated parameter obtained by dividing a sample's ultraviolet absorption at a wavelength of two hundred fifty-four (254) nanometers (UV<sub>254</sub>) (in m<sup>-1</sup>) by its concentration of dissolved organic carbon (DOC) (in milligrams per liter). In order to determine SUVA, UV<sub>254</sub> and DOC must be measured separately. When determining SUVA, systems shall use the following methods:

(A) A system shall use one (1) or more of the fol-

lowing methods to measure DOC:

(i) Standard Method 5310 B (High-Temperature Combustion Method).

(ii) Standard Method 5310 C (Persulfate-Ultraviolet or Heated-Persulfate Oxidation Method).

(iii) Standard Method 5310 D (Wet-Oxidation Method).

(B) Prior to analysis under clause (A), DOC samples must be filtered through a forty-five hundredths (0.45) micrometer pore-diameter filter. Water passed through the filter prior to filtration of the sample must serve as the filtered blank. This filtered blank must be analyzed using procedures identical to those used for analysis of the samples and must meet the following criteria:

(i) DOC is less than five-tenths (0.5) milligram per liter.

(ii) DOC samples must be filtered through the forty-five hundredths (0.45) micrometer pore-diameter filter prior to acidification.

(iii) DOC samples must either be analyzed or must be acidified to achieve pH less than two (2.0) by minimal addition of phosphoric or sulfuric acid as soon as practical after sampling, not to exceed forty-eight (48) hours.

(iv) Acidified DOC samples must be analyzed within twenty-eight (28) days.

(C) The following apply to a system required to measure UV<sub>254</sub> under this subdivision:

(i) A system shall use Method 5910 B (Ultraviolet Absorption Method) to measure ultraviolet absorption at two hundred fifty-four (254) nanometers (UV<sub>254</sub>). UV absorption must be measured at two hundred fifty-three and seven-tenths (253.7) nanometers (may be rounded off to two hundred fifty-four (254) nanometers).

(ii) Prior to analysis, UV<sub>254</sub> samples must be filtered through a forty-five hundredths (0.45) micrometer pore-diameter filter.

(iii) The pH of UV<sub>254</sub> samples may not be adjusted.

(iv) Samples must be analyzed as soon as practical after sampling, not to exceed forty-eight (48) hours.

SUVA must be determined on water prior to the addition of disinfectants/oxidants by the system. DOC and UV<sub>254</sub> samples used to determine a SUVA value must be taken at the same time and at the same location.

(e) Parameters measured under subsection (d) must be measured by a certified operator or a party approved by the commissioner. (*Water Pollution Control Board; 327 IAC 8-2.5-5; filed May 1, 2003, 12:00 p.m.: 26 IR 2841*)

**327 IAC 8-2.5-6 Monitoring requirements; disinfectant residuals, disinfection byproducts, and disinfection byproducts precursors**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2

**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 6. (a) General monitoring requirements for disinfectant residuals, disinfection byproducts, and disinfection byproducts precursors are as follows:

(1) Systems shall take all samples during normal operating conditions.

(2) Systems may consider multiple wells drawing water from a single aquifer as one (1) treatment plant for determining the minimum number of TTHM and HAA5 samples required.

(3) Failure to monitor in accordance with the monitoring plan required under subsection (f) is a monitoring violation.

(4) Failure to monitor will be treated as a violation for the entire period covered by the annual average where compliance is based on a running annual average of monthly or quarterly samples or averages and the system's failure to monitor makes it impossible to determine compliance with MCLs or MRDLs.

(5) Systems may use only data collected under the provisions of subsection (b) or 40 CFR 141.140 through 40 CFR 141.144\* to qualify for reduced monitoring.

(b) Monitoring requirements for disinfection byproducts are as follows:

(1) TTHM and HAA5 monitoring requirements are as follows:

(A) For routine monitoring, systems shall monitor at the frequency indicated in the following table:

ROUTINE MONITORING FREQUENCY FOR TTHM AND HAA5		
Type of System	Minimum Monitoring Frequency	Sample Location in the Distribution System
Subpart H system serving at least 10,000 persons	4 water samples per quarter per treatment plant	At least 25% of all samples collected each quarter at locations representing maximum residence time. Remaining samples taken at locations representative of at least average residence time in the distribution system and representing the entire distribution system, taking into account number of persons served, different sources of water, and different treatment methods <sup>1</sup> .
Subpart H system serving from 500 to 9,999 persons	1 water sample per quarter per treatment plant	Locations representing maximum residence time <sup>1</sup> .
Subpart H system serving fewer than 500 persons	1 sample per year per treatment plant during month of warmest water temperature	Locations representing maximum residence time <sup>1</sup> . If the sample (or average of annual samples, if more than one sample is taken) exceeds the MCL, the system must increase monitoring to 1 sample per treatment plant per quarter, taken at a point reflecting the maximum residence time in the distribution system, until the system meets reduced monitoring criteria in clause (D).
System using only ground water not under direct influence of surface water using chemical disinfectant and serving at least 10,000 persons	1 water sample per quarter per treatment plant <sup>2</sup>	Locations representing maximum residence time <sup>1</sup> .

System using only ground water not under direct influence of surface water using chemical disinfectant and serving fewer than 10,000 persons	1 sample per year per treatment plant <sup>2</sup> during month of warmest water temperature	Locations representing maximum residence time <sup>1</sup> . If the sample (or average of annual samples, if more than 1 sample is taken) exceeds the MCL, the system must increase monitoring to 1 sample per treatment plant per quarter, taken at a point reflecting the maximum residence time in the distribution system, until the system meets criteria in clause (D) for reduced monitoring.
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<sup>1</sup>If a system elects to sample more frequently than the minimum required, at least twenty-five percent (25%) of all samples collected each quarter, including those taken in excess of the required frequency, must be taken at locations that represent the maximum residence time of the water in the distribution system. The remaining samples must be taken at locations representative of at least average residence time in the distribution system.

<sup>2</sup>Multiple wells drawing water from a single aquifer may be considered one (1) treatment plant for determining the minimum number of samples required.

(B) Systems may reduce monitoring, except as otherwise provided, in accordance with the following table:

REDUCED MONITORING FREQUENCY FOR TTHM AND HAA5		
IF YOU ARE A:	AND YOU HAVE MONITORED AT LEAST ONE YEAR AND YOUR:	YOU MAY REDUCE MONITORING TO THIS LEVEL:
Subpart H system serving at least 10,000 persons that has a source water annual average TOC level, before any treatment, $\leq 4.0$ mg/L	TTHM annual average $\leq 0.040$ mg/L and HAA5 annual average $\leq 0.030$ mg/L	1 sample per treatment plant per quarter at distribution system location reflecting maximum residence time
Subpart H system serving from 500 to 9,999 persons that has a source water annual average TOC level, before any treatment, $\leq 4.0$ mg/L	TTHM annual average $\leq 0.040$ mg/L and HAA5 annual average $\leq 0.030$ mg/L	1 sample per treatment plant per year at distribution system location reflecting maximum residence time during month of warmest water temperature. NOTE: Any Subpart H system serving fewer than 500 persons may not reduce its monitoring to less than one sample per treatment plant per year.
System using only ground water not under direct influence of surface water using chemical disinfectant and serving at least 10,000 persons	TTHM annual average $\leq 0.040$ mg/L and HAA5 annual average $\leq 0.030$ mg/L	1 sample per treatment plant per year at distribution system location reflecting maximum residence time during month of warmest water temperature
System using only ground water not under direct influence of surface water using chemical disinfectant and serving fewer than 10,000 persons	TTHM annual average $\leq 0.040$ mg/L and HAA5 annual average $\leq 0.030$ mg/L for two consecutive years OR TTHM annual average $\leq 0.020$ mg/L and HAA5 annual average $\leq 0.015$ mg/L for 1 year	1 sample per treatment plant per 3 year monitoring cycle at distribution system location reflecting maximum residence time during month of warmest water temperature, with the 3 year cycle beginning on January 1 following quarter in which system qualifies for reduced monitoring

(C) Systems on a reduced monitoring schedule may remain on that reduced schedule as long as the average of all samples taken in the year (for systems that must monitor quarterly) or the result of the

sample (for systems that must monitor no more frequently than annually) is no more than sixty-thousandths (0.060) milligram per liter and forty-five thousandths (0.045) milligram per liter for TTHMs

and HAA5, respectively. Systems that do not meet these levels shall resume monitoring at the frequency identified in the table contained in clause (A) (minimum monitoring frequency column) in the quarter immediately following the monitoring period in which the system exceeds those levels. For systems using only ground water not under the direct influence of surface water and serving fewer than ten thousand (10,000) persons, if either the TTHM annual average is greater than eighty-thousandths (0.080) milligram per liter or the HAA5 annual average is greater than sixty-thousandth [*sic.*] (0.060) milligram per liter, the system shall go to the increased monitoring identified in the table contained in clause (A) (sample location column) in the quarter immediately following the monitoring period in which the system exceeds those levels.

(D) Systems on increased monitoring may return to routine monitoring if, after at least one (1) year of monitoring their TTHM annual average is equal to or less than sixty-thousandths (0.060) milligram per liter and their HAA5 annual average is equal to or less than forty-five thousandths (0.045) milligram per liter.

(E) A system may return to routine monitoring at the commissioner's discretion.

(2) CWSs and NTNCWSs using chlorine dioxide for disinfection or oxidation must conduct monitoring for chlorite as follows:

(A) Routine monitoring is as follows:

(i) Systems shall take daily samples at the entrance to the distribution system. For any daily sample that exceeds the chlorite MCL, the system shall take additional samples in the distribution system the following day at the locations required by clause (B), in addition to the sample required at the entrance to the distribution system.

(ii) Systems shall take a three (3) sample set each month in the distribution system. The system shall take one (1) sample at each of the following locations:

(AA) Near the first customer.

(BB) At a location representative of average residence time.

(CC) At a location reflecting maximum residence time in the distribution system.

Any additional routine sampling must be conducted in the same manner (as three (3) sample sets, at the specified locations). The system may use the results of additional monitoring conducted under clause (B) to meet the requirement for monitoring in this clause.

(B) On each day following a routine sample monitoring result that exceeds the chlorite MCL at the

entrance to the distribution system, the system shall take three (3) chlorite distribution system samples at the following locations:

(i) As close to the first customer as possible.

(ii) In a location representative of average residence time.

(iii) As close to the end of the distribution system as possible.

(C) Monitoring for chlorite may be reduced as follows:

(i) Chlorite monitoring at the entrance to the distribution system required by clause (A)(i) may not be reduced.

(ii) Chlorite monitoring in the distribution system required by clause (A)(ii) may be reduced to one (1) three (3) sample set per quarter after one (1) year of monitoring where no individual chlorite sample taken in the distribution system under clause (A)(ii) has exceeded the chlorite MCL and the system has not been required to conduct monitoring under clause (B). The system may remain on the reduced monitoring schedule unless one (1) of the three (3) individual chlorite samples taken monthly in the distribution system under clause (A)(ii) exceeds the chlorite MCL or the system is required to conduct monitoring under clause (B), at which time the system shall revert to routine monitoring.

(3) Monitoring for bromate is as follows:

(A) CWSs and NTNCWSs using ozone for disinfection or oxidation shall take one (1) sample per month for each treatment plant in the system using ozone. Systems shall take samples monthly at the entrance to the distribution system while the ozonation system is operating under normal conditions.

(B) Systems required to analyze for bromate may reduce monitoring from monthly to once per quarter, if the system demonstrates that the average source water bromide concentration is less than five-hundredths (0.05) milligram per liter based upon representative monthly bromide measurements for one (1) year. The system may remain on reduced bromate monitoring unless the running annual average source water bromide concentration, computed quarterly, is equal to or greater than five-hundredths (0.05) milligram per liter based upon representative monthly measurements. If the running annual average source water bromide concentration is equal to or greater than five-hundredths (0.05) milligram per liter, the system shall resume routine monitoring required by clause (A).

(c) Monitoring requirements for disinfectant residuals are as follows:

- (1) Monitoring for chlorine and chloramines is as follows:
- (A) CWSs and NTNCWSs that use chlorine or chloramines shall measure the residual disinfectant level in the distribution system when total coliforms are sampled, as specified in 327 IAC 8-2-8. Subpart H systems may use the results of residual disinfectant concentration sampling conducted under 327 IAC 8-2-8.8(d) for systems which filter, in lieu of taking separate samples.
  - (B) Monitoring for chlorine or chloramines may not be reduced.
- (2) Monitoring for chlorine dioxide is as follows:
- (A) CWSs, NTNCWSs, and TWSs that use chlorine dioxide for disinfection or oxidation shall take daily samples at the entrance to the distribution system. For any daily sample that exceeds the MRDL, the system shall take samples in the distribution system the following day at the locations required by clause (D), in addition to the sample required at the entrance to the distribution system.
  - (B) On each day following a routine sample monitoring result that exceeds the MRDL, the system is required to take three (3) chlorine dioxide distribution system samples.
    - (i) If chlorine dioxide or chloramines are used to maintain a disinfectant residual in the distribution system, or if chlorine is used to maintain a disinfectant residual in the distribution system and there are no disinfection addition points after the entrance to the distribution system, for example, no booster chlorination, the system shall take three (3) samples as close to the first customer as possible, at intervals of at least six (6) hours.
    - (ii) If chlorine is used to maintain a disinfectant residual in the distribution system and there are one (1) or more disinfection addition points after the entrance to the distribution system, for example, booster chlorination, the system shall take one (1) sample at each of the following locations:
      - (AA) As close to the first customer as possible.
      - (BB) In a location representative of average residence time.
      - (CC) As close to the end of the distribution system as possible, reflecting maximum residence time in the distribution system.
  - (C) Chlorine dioxide monitoring may not be reduced.
  - (d) Monitoring requirements for disinfection byproduct precursors (DBPP) are as follows:
    - (1) Routine monitoring is required as follows:
      - (A) Subpart H systems which use conventional filtration treatment, as defined in 327 IAC 8-2-1, shall monitor each treatment plant for TOC no later than the point of combined filter effluent turbidity monitoring and representative of the treated water.
      - (B) All systems required to monitor under this subdivision shall also monitor for TOC in the source water prior to any treatment at the same time as monitoring for TOC in the treated water. These samples, source water and treated water, are referred to as paired samples.
      - (C) At the same time as the source water sample is taken, all systems shall monitor for alkalinity in the source water prior to any treatment.
      - (D) Systems shall take one (1) paired sample and one (1) source water alkalinity sample per month per plant at a time representative of normal operating conditions and influent water quality.
    - (2) Subpart H systems with an average treated water TOC of less than two and zero-tenths (2.0) milligrams per liter for two (2) consecutive years, or less than one (1.0) milligram per liter for one (1) year, may reduce monitoring for both TOC and alkalinity to one (1) paired sample and one (1) source water alkalinity sample per plant per quarter. The system shall revert to routine monitoring in the month following the quarter when the annual average treated water TOC is greater than or equal to two and zero-tenths (2.0) milligrams per liter.
    - (e) Systems required to analyze for bromate may reduce bromate monitoring from monthly to once per quarter if the system demonstrates that the average source water bromide concentration is less than five-hundredths (0.05) milligram per liter based upon representative monthly measurements for one (1) year. The system shall continue bromide monitoring to remain on reduced bromate monitoring.
    - (f) Each system required to monitor under this section shall develop and implement a monitoring plan as follows:
      - (1) The system shall maintain the plan and make it available for inspection by the commissioner and the general public no later than thirty (30) days following the applicable compliance dates in section 4(b) of this rule.
      - (2) All Subpart H systems serving more than three thousand three hundred (3,300) people shall submit a copy of the monitoring plan to the commissioner no later than the date of the first report required under section 8 of this rule.
      - (3) The commissioner may also require any other system to submit a monitoring plan.
      - (4) After review, the commissioner may require changes in any plan elements.
      - (5) The plan must include at a minimum the following

elements:

(A) Specific locations and schedules for collecting samples for any parameters included in this section.

(B) How the system will calculate compliance with MCLs, MRDLs, and treatment techniques.

(C) If approved for monitoring as a consecutive system, or if providing water to a consecutive system, the sampling plan must reflect the entire distribution system.

\*40 CFR 141.140 through 141.144 is incorporated by reference and is available for copying at the Indiana Department of Environmental Management, Office of Water Quality, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-2.5-6; filed May 1, 2003, 12:00 p.m.: 26 IR 2844*)

**327 IAC 8-2.5-7 Compliance requirements; disinfectants and disinfection by-products**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2

**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 7. (a) General compliance requirements for disinfectants and disinfection byproducts are as follows:

(1) Where compliance is based on a running annual average of monthly or quarterly samples or averages and the system fails to monitor for TTHM, HAA5, or bromate, this failure to monitor will be treated as a monitoring violation for the entire period covered by the annual average.

(2) Where compliance is based on a running annual average of monthly or quarterly samples or averages and the system's failure to monitor makes it impossible to determine compliance with MRDLs for chlorine and chloramines, this failure to monitor will be treated as a monitoring violation for the entire period covered by the annual average.

(3) All samples taken and analyzed under the provisions of this rule must be included in determining compliance, even if that number is greater than the minimum required.

(4) If, during the first year of monitoring under section 6 of this rule, any particular quarter's average will cause the running annual average of that system to exceed the MCL, the system is out of compliance at the end of that quarter.

(b) Compliance requirements for disinfection byproducts are as follows:

(1) Compliance requirements for TTHMs and HAA5 are as follows:

(A) For systems monitoring quarterly, compliance

with MCLs in section 1(b) of this rule will be based on a running annual arithmetic average, computed quarterly, of quarterly arithmetic averages of all samples collected by the system as prescribed by section 6(b)(1) of this rule.

(B) For systems monitoring less frequently than quarterly, systems demonstrate MCL compliance if the average of samples taken that year under the provisions of section 6(b)(1) of this rule does not exceed the MCLs in section 1 of this rule. If the average of these samples exceeds the MCL, the system shall increase monitoring to once per quarter per treatment plant. Such a system is not in violation of the MCL until it has completed one (1) year of quarterly monitoring, unless the result of fewer than four (4) quarters of monitoring will cause the running annual average to exceed the MCL, in which case the system is in violation at the end of that quarter. Systems required to increase monitoring frequency to quarterly monitoring shall calculate compliance by including the sample that triggered the increased monitoring plus the following three (3) quarters of monitoring.

(C) If the running annual arithmetic average of quarterly averages covering any consecutive four (4) quarter period exceeds the MCL, the system is in violation of the MCL and must notify the public pursuant to 327 IAC 8-2.1-7, in addition to reporting to the commissioner pursuant to section 8 of this rule.

(D) If a public water system fails to complete four (4) consecutive quarters of monitoring, compliance with the MCL for the last four (4) quarter compliance period must be based on an average of the available data.

(2) Compliance requirements for bromate will be based on a running annual arithmetic average, computed quarterly, of monthly samples (or, for months in which the system takes more than one (1) sample, the average of all samples taken during the month) collected by the system as prescribed by section 6(b)(3) of this rule. If the average of samples covering any consecutive four (4) quarter period exceeds the MCL, the system is in violation of the MCL and shall notify the public pursuant to 327 IAC 8-2.1-7, in addition to reporting to the agency pursuant to section 8 of this rule. If a public water system fails to complete twelve (12) consecutive months of monitoring, compliance with the MCL for the last four (4) quarter compliance period must be based on an average of the available data.

(3) Compliance requirements for chlorite will be based on an arithmetic average of each three (3) sample set

taken in the distribution system as prescribed by section 6(b)(2)(A)(ii) and 6(b)(2)(B) of this rule. If the arithmetic average of any three (3) sample sets exceeds the MCL, the system is in violation of the MCL and shall notify the public pursuant to 327 IAC 8-2.1-3 through 327 IAC 8-2.1-17, in addition to reporting to the commissioner pursuant to section 8 of this rule.

(c) Compliance requirements for disinfectant residuals are as follows:

(1) Compliance requirements for chlorine and chloramines are as follows:

(A) Compliance will be based on a running annual arithmetic average, computed quarterly, of monthly averages of all samples collected by the system under section 6(c)(1) of this rule. If the average covering any consecutive four (4) quarter period exceeds the MRDL, the system is in violation of the MRDL and must notify the public pursuant to 327 IAC 8-2.1-7, in addition to reporting to the commissioner pursuant to section 8 of this rule.

(B) Where systems switch between the use of chlorine and chloramines for residual disinfection during the year, compliance must be determined by including all monitoring results of both chlorine and chloramines in calculating compliance. Reports submitted pursuant to section 8 of this rule must clearly indicate which residual disinfectant was analyzed for each sample.

(2) Compliance requirements for chlorine dioxide are as follows:

(A) Compliance requirements for acute violations are as follows:

(i) Compliance will be based on consecutive daily samples collected by the system under section 6(c)(2) of this rule.

(ii) If any daily sample taken at the entrance to the distribution system exceeds the MRDL, and on the following day one (1) or more of the three (3) samples taken in the distribution system exceed the MRDL, the system is in violation of the MRDL and must take immediate corrective action to lower the level of chlorine dioxide below the MRDL, and must notify the public pursuant to the procedures for acute health risks in 327 IAC 8-2.1-3 through 327 IAC 8-2.1-17.

(iii) Failure to take samples in the distribution system the day following an exceedance of the chlorine dioxide MRDL at the entrance to the distribution system will also be considered an MRDL violation and the system shall notify the public of the violation in accordance with the provisions for acute violations under 327 IAC 8-2.1-7 through 327 IAC 8-2.1-17 in addition to

reporting the commissioner pursuant to section 8 of this rule.

(B) Compliance requirements for nonacute violations are as follows:

(i) Compliance will be based on consecutive daily samples collected by the system under section 6(c)(2) of this rule.

(ii) If any two (2) consecutive daily samples taken at the entrance to the distribution system exceed the MRDL and all distribution system samples taken are below the MRDL, the system is in violation of the MRDL and must take corrective action to lower the level of chlorine dioxide below the MRDL at the point of sampling and will notify the public pursuant to the procedures for nonacute health risks in 327 IAC 8-2.1-7 through 327 IAC 8-2.1-17 in addition to reporting to the commissioner pursuant to section 8 of this rule.

(iii) Failure to monitor at the entrance to the distribution system the day following an exceedance of the chlorine dioxide MRDL at the entrance to the distribution system is also an MRDL violation and the system must notify the public of the violation in accordance with the provisions for nonacute violations under 327 IAC 8-2.1-7 in addition to reporting the commissioner pursuant to section 8 of this rule.

(d) Compliance for disinfection byproduct precursors (DBPP) are as follows:

(1) Compliance will be determined as specified by section 9 of this rule.

(2) Systems may begin monitoring to determine whether Step 1 TOC removals can be met twelve (12) months prior to the compliance date for the system. This monitoring is not required and failure to monitor during this period is not a violation. However, any system that does not monitor during this period, and then determines in the first twelve (12) months after the compliance date that it is not able to meet the Step 1 requirements in section 9(b)(2) of this rule and must therefore apply for alternate minimum TOC removal (Step 2) requirements, is not eligible for retroactive approval of alternate minimum TOC removal (Step 2) requirements as allowed by section 9(b)(3) of this rule, and is in violation.

(3) Systems may apply for alternate minimum TOC removal (Step 2) requirements any time after the compliance date.

(4) For systems required to meet Step 1 TOC removals, if the value calculated under section 9(c)(1)(D) of this rule is less than one (1.00), the system is in violation of the treatment technique requirements and must notify the public pursuant to 327 IAC 8-2.1-17(80)(a) and

327 IAC 8-2.1-17(80)(b), in addition to reporting to the commissioner pursuant to section 8 of this rule.  
(*Water Pollution Control Board; 327 IAC 8-2.5-7; filed May 1, 2003, 12:00 p.m.: 26 IR 2847*)

**327 IAC 8-2.5-8 Reporting and record keeping requirements; disinfectants and disinfection byproducts**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2  
**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 8. (a) Systems required to sample quarterly or more frequently shall report to the commissioner within ten (10) days after the end of each quarter in which samples were collected, notwithstanding the provisions of 327 IAC 8-2.1-7. Systems required to sample less frequently than quarterly report to the commissioner within ten (10) days after the end of each monitoring period in which samples were collected.

(b) For disinfection byproducts, systems must report the information specified in the following table:

IF YOU ARE A:	YOU MUST REPORT:
(1) System monitoring for TTHMs and HAA5 under the requirements of section 6(b) of this rule on a quarterly or more frequent basis:	(i) The number of samples taken during the last quarter. (ii) The location, date, and result of each sample taken during the last quarter. (iii) The arithmetic average of all samples taken in the last quarter. (iv) The annual arithmetic average of the quarterly arithmetic averages of this section for the last four (4) quarters. (v) Whether, based on section 7(b)(1) of this rule, the MCL was violated.
(2) System monitoring for TTHMs and HAA5 under the requirements of section 6(b) of this rule less frequently than quarterly (but at least annually):	(i) The number of samples taken during the last year. (ii) The location, date, and result of each sample taken during the last monitoring period. (iii) The arithmetic average of all samples taken over the last year. (iv) Whether, based on section 7(b)(1) of this rule, the MCL was violated.
(3) System monitoring for TTHMs and HAA5 under the requirements of section 6(b) of this rule less frequently than annually:	(i) The location, date, and result of the last sample taken. (ii) Whether, based on section 7(b)(1) of this rule, the MCL was violated.
(4) System monitoring for chlorite under the requirements of section 6(b) of this rule:	(i) The number of entry point samples taken each month for the last three (3) months. (ii) The location, date, and result of each sample (both entry point and distribution system) taken during the last quarter. (iii) For each month in the reporting period, the arithmetic average of all samples taken in each three sample set taken in the distribution system. (iv) Whether, based on section 7(b)(3) of this rule, the MCL was violated, and in which month, and how many times it was violated each month.
(5) System monitoring for bromate under the requirements of section 6(b) of this rule:	(i) The number of samples taken during the last quarter. (ii) The location, date, and result of each sample taken during the last quarter. (iii) The arithmetic average of the monthly arithmetic averages of all samples taken in the last year. (iv) Whether, based on section 7(b)(2) of this rule, the MCL was violated.

(c) For disinfectants, systems shall report the information specified in the following table:

IF YOU ARE A:	YOU MUST REPORT:
(1) System monitoring for chlorine or chloramines under the requirements of section 6(c) of this rule:	(i) The number of samples taken during each month of the last quarter. (ii) The monthly arithmetic average of all samples taken in each month for the last twelve (12) months. (iii) The arithmetic average of all monthly averages for the last twelve (12) months. (iv) Whether, based on section 7(c)(1) of this rule, the MRDL was violated.

(2) System monitoring for chlorine dioxide under the requirements of section 6(c) of this rule:	(i) The dates, results, and locations of samples taken during the last quarter. (ii) Whether, based on section 7(c)(2) of this rule, the MRDL was violated. (iii) Whether the MRDL was exceeded in any two (2) consecutive daily samples and whether the resulting violation was acute or nonacute.
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(d) For disinfection byproduct precursors and enhanced coagulation or enhanced softening, systems shall report the information specified in the following table:

IF YOU ARE A:	YOU MUST REPORT:
(1) System monitoring monthly or quarterly for TOC under the requirements of section 6(d) of this rule and required to meet the enhanced coagulation or enhanced softening requirements in section 9(b)(2) or 9(b)(3) of this rule:	(i) The number of paired (source water and treated water) samples taken during the last quarter. (ii) The location, date, and results of each paired sample and associated alkalinity taken during the last quarter. (iii) For each month in the reporting period that paired samples were taken, the arithmetic average of the percent reduction of TOC for each paired sample and the required TOC percent removal. (iv) Calculations for determining compliance with the TOC percent removal requirements, as provided in section 9(c)(1) of this rule. (v) Whether the system is in compliance with the enhanced coagulation or enhanced softening percent removal requirements in section 9(b) of this rule for the last four (4) quarters.
(2) System monitoring monthly or quarterly for TOC under the requirements of section 6(d) of this rule and meeting one (1) or more of the alternative compliance criteria in section 9(a)(2) or 9(a)(3) of this rule:	(i) The alternative compliance criterion that the system is using. (ii) The number of paired samples taken during the last quarter. (iii) The location, date, and result of each paired sample and associated alkalinity taken during the last quarter. (iv) The running annual arithmetic average based on monthly averages (or quarterly samples) of source water TOC for systems meeting a criterion in section 9(a)(2)(A) or 9(a)(2)(C) of this rule or of treated water TOC for systems meeting the criterion in section 9(a)(2)(B) of this rule. (v) The running annual arithmetic average based on monthly averages (or quarterly samples) of source water SUVA for systems meeting the criterion in section 9(a)(2)(G) of this rule or of treated water SUVA for systems meeting the criterion in section 9(a)(2)(H) of this rule. (vi) The running annual average of source water alkalinity for systems meeting the criterion in section 9(a)(2)(C) of this rule and of treated water alkalinity for systems meeting the criterion in section 9(a)(3)(A) of this rule. (vii) The running annual average for both TTHM and HAA5 for systems meeting the criterion in section 9(a)(2)(C) or 9(a)(2)(F) of this rule. (viii) The running annual average of the amount of magnesium hardness removal (as CaCO <sub>3</sub> , in mg/L) for systems meeting the criterion in section 9(a)(3)(B) of this rule. (ix) Whether the system is in compliance with the particular alternative compliance criterion in section 9(a)(2) or 9(a)(3) of this rule.

(Water Pollution Control Board; 327 IAC 8-2.5-8; filed May 1, 2003, 12:00 p.m.: 26 IR 2849)

**327 IAC 8-2.5-9 Treatment techniques for control of disinfection byproducts precursors**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2  
**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 9. (a) Applicability is as follows:

- (1) Subpart H systems using conventional filtration treatment shall operate with enhanced coagulation or enhanced softening to achieve the TOC percent removal levels specified in subsection (b) unless the system meets at least one (1) of the alternative compliance criteria listed in subdivision (2) or (3).
- (2) Subpart H systems using conventional filtration

treatment may use one (1) or all of the following alternative compliance criteria to comply with this section in lieu of complying with subsection (b):

(A) The system's source water TOC level, measured according to section 5(d)(3) of this rule, is less than two and zero-tenths (2.0) milligrams per liter, calculated quarterly as a running annual average.

(B) The system's treated water TOC level, measured according to section 5(d)(3) of this rule, is less than two and zero-tenths (2.0) milligrams per liter, calculated quarterly as a running annual average.

(C) The system's source water TOC level, measured according to section 5(d)(3) of this rule is less than four and zero-tenths (4.0) milligrams per liter, calculated quarterly as a running annual average and the following are met:

(i) The source water alkalinity, measured according to section 5(d)(1) of this rule, is greater than sixty (60) milligrams per liter (as  $\text{CaCO}_3$ ), calculated quarterly as a running annual average.

(ii) Either of the following:

(AA) The TTHM and HAA5 running annual averages are no greater than forty-thousandths (0.040) milligram per liter and thirty-thousandths (0.030) milligram per liter, respectively; or

(BB) Prior to the effective date for compliance in section 4(b) of this rule, the system has made a clear and irrevocable financial commitment not later than the effective date for compliance in section 4(b) of this rule to use technologies that will limit the levels of TTHMs and HAA5 to no more than forty-thousandths (0.040) milligram per liter and thirty-thousandths (0.030) milligram per liter, respectively. Systems shall submit evidence of a clear and irrevocable financial commitment, in addition to a schedule containing milestones and periodic progress reports for installation and operation of appropriate technologies, to the agency for approval not later than the effective date for compliance in section 4(b) of this rule. These technologies must be installed and operating not later than June 30, 2005.

(D) The TTHM and HAA5 running annual averages are no greater than forty-thousandths (0.040) milligram per liter and thirty-thousandths (0.030) milligram per liter, respectively, and the system uses only chlorine for primary disinfection and maintenance of a residual in the distribution system.

(E) The system's source water SUVA, prior to any treatment and measured monthly according to section 5(d)(4) of this rule, is less than or equal to two and zero-tenths (2.0) liters per milligram meter, calculated quarterly as a running annual average.

(F) The system's finished water SUVA, measured monthly according to section 5(d)(4) of this rule, is less than or equal to two and zero-tenths (2.0) liters per milligram meter, calculated quarterly as a running annual average.

(3) Systems practicing enhanced softening that cannot achieve the TOC removals required by subdivision [subsection] (b)(2) may use the following alternative compliance criteria in lieu of complying with subsection (b):

(A) Softening that results in lowering the treated water alkalinity to less than sixty (60) milligrams per liter (as  $\text{CaCO}_3$ ), measured monthly according to section 5(d)(1) of this rule and calculated quarterly as a running annual average.

(B) Softening that results in removing at least ten (10) milligrams per liter of magnesium hardness (as  $\text{CaCO}_3$ ), measured monthly and calculated quarterly as an annual running average.

Systems shall comply with monitoring requirements in section 6(d) of this rule.

(b) Enhanced coagulation and enhanced softening performance requirements are as follows:

(1) Systems shall achieve the percent reduction of TOC specified in subdivision (2) between the source water and the combined filter effluent unless the commissioner approves a system's request for alternate minimum TOC removal (Step 2) requirements under subdivision (3).

(2) Required Step 1 TOC reductions, indicated in the following table, are based upon specified source water parameters measured in accordance with section 6(d) of this rule. Systems practicing softening are required to meet the Step 1 TOC reductions in the far-right column (source water alkalinity greater than one hundred twenty (120) milligrams per liter) for the specified source water TOC:

Step 1 Required Removal of TOC by Enhanced Coagulation and Enhanced Softening for Subpart H Systems Using Conventional Treatment<sup>1,2</sup>

Source-Water TOC, mg/L	Source-Water Alkalinity, mg/L as $\text{CaCO}_3$		
	0-60 (percent)	>60-120 (percent)	>120 <sup>3</sup> (percent)
>2.0-4.0	35.0%	25.0%	15.0%
>4.0-8.0	45.0%	35.0%	25.0%
>8.0	50.0%	40.0%	30.0%

<sup>1</sup>Systems meeting at least one (1) of the conditions in subsection (a)(2) are not required to operate with enhanced coagulation.

<sup>2</sup>Softening systems meeting one (1) of the alternative compliance criteria in subsection (a)(3) are not required to operate with enhanced softening.

<sup>3</sup>Systems practicing softening shall meet the TOC removal requirements in this column.

(3) Subpart H conventional treatment systems that cannot achieve the Step 1 TOC removals required by subdivision (2) due to water quality parameters or operational constraints shall apply to the commissioner, within three (3) months of failure to achieve the TOC removals required by subdivision (2), for approval of alternative minimum TOC (Step 2) removal requirements submitted by the system as provided by subdivision (4). If the commissioner approves the alternative minimum TOC removal (Step 2) requirements, the commissioner may make those requirements retroactive for the purposes of determining compliance. Until the commissioner approves the alternate minimum TOC removal (Step 2) requirements, the system shall meet the Step 1 TOC removals contained in subdivision (2).

(4) Alternate minimum TOC removal (Step 2) requirements are as follows:

(A) Applications made to the commissioner by enhanced coagulation systems for approval of alternate minimum TOC removal (Step 2) requirements under subdivision (3) must include, at a minimum, results of bench-scale or pilot-scale testing conducted under clause (C). The submitted bench-scale or pilot-scale testing will be used to determine the alternate enhanced coagulation level.

(B) As used in this subdivision, "alternate enhanced coagulation level" means coagulation at a coagulant dose and pH as determined by the method described in clauses (A) through (E) [*clause (A), this clause, and clauses (C) through (E)*] such that an incremental addition of ten (10) milligrams per liter of alum (or equivalent amount of ferric salt) results in a TOC removal of less than or equal to three-tenths (0.3) milligram per liter. The percent removal of TOC at this point on the TOC removal versus coagulant dose curve is defined as the minimum TOC removal required for the system. Once approved by the agency, this minimum requirement supersedes the minimum TOC removal required by the table in subdivision (2). This requirement will be effective until the agency approves a new value based on the results of a new bench-scale and pilot-scale tests. Failure to achieve alternative minimum TOC removal levels is a violation of National Primary Drinking Water Regulations.

(C) Bench-scale or pilot-scale testing of enhanced coagulation must be conducted by using representative water samples and adding ten (10) milligrams per liter increments of alum, or equivalent amounts

of ferric salt, until the pH is reduced to a level less than or equal to the enhanced coagulation Step 2 target pH shown in the following table:

Enhanced Coagulation Step 2 Target pH

Alkalinity (mg/L as CaCO <sub>3</sub> )	Target pH
0-60	5.5
>60-120	6.3
>120-240	7.0
>240	7.5

(D) For waters with alkalinities of less than sixty (60) milligrams per liter for which the addition of small amounts of alum or equivalent addition of iron coagulant drives the pH below five and five-tenths (5.5) before significant TOC removal occurs, the system shall add necessary chemicals to maintain the pH between five and three-tenths (5.3) and five and seven-tenths (5.7) in samples until the TOC removal of three-tenths (0.3) milligram per liter per ten (10) milligrams per liter alum added, or equivalent addition of iron coagulant, is reached.

(E) The system may operate at any coagulant dose or pH necessary, consistent with other National Primary Drinking Water Regulations, to achieve the minimum TOC percent removal approved under subdivision (3).

(F) If the TOC removal is consistently less than three-tenths (0.3) milligram per liter of TOC per ten (10) milligrams per liter of incremental alum dose at all dosages of alum (or equivalent addition of iron coagulant), the water is deemed to contain TOC not amenable to enhanced coagulation. The system may then apply to the commissioner for a waiver of enhanced coagulation requirements.

(c) Compliance calculations are required as follows:  
(1) Subpart H systems other than those identified in subsection (a)(2) or (a)(3) shall comply with requirements contained in subsection (b)(2) or (b)(3). Systems shall calculate compliance quarterly, beginning after the system has collected twelve (12) months of data, by determining an annual average using the following method:

STEP 1: Calculate actual monthly TOC percent removal, which is equal to:

(1 - (treated water TOC/source water TOC)) × one hundred (100).

STEP 2: Calculate the required monthly TOC percent removal (from either the table in subsection (b)(2) or from subsection (b)(3)).

STEP 3: Divide the value determined under STEP 1 by the value determined under STEP 2.

STEP 4: Add together the quotients determined

under STEP 3 for the last twelve (12) months and divide by twelve (12).

STEP 5: If the quotient calculated in STEP 4 is less than one and zero-hundredths (1.00), the system is not in compliance with the TOC percent removal requirements.

(2) Systems may use the following provisions in lieu of the calculations in subdivision (1) to determine compliance with TOC percent removal requirements:

(A) In any month that the system's treated or source water TOC level, measured according to section 5(d)(3) of this rule, is less than two and zero-tenths (2.0) milligrams per liter, the system may assign a monthly value of one and zero-tenths (1.0) (in lieu of the value calculated in STEP 3 of subdivision (1)) when calculating compliance under subdivision (1).

(B) In any month that a system practicing softening removes at least ten (10) milligrams per liter of magnesium hardness (as CaCO<sub>3</sub>), the system may assign a monthly value of one and zero-tenths (1.0) (in lieu of the value calculated in STEP 3 of subdivision (1)) when calculating compliance under subdivision (1).

(C) In any month that the system's source water SUVA, prior to any treatment and measured according to section 5(d)(4) of this rule, is less than or equal to two and zero-tenths (2.0) liters per milligram meter, the system may assign a monthly value of one and zero-tenths (1.0) (in lieu of the value calculated in STEP 3 of subdivision (1)) when calculating compliance under subdivision (1).

(D) In any month that the system's finished water SUVA, measured according to section 5(d)(4) of this rule, is less than or equal to two and zero-tenths (2.0) liters per milligram meter, the system may assign a monthly value of one and zero-tenths (1.0) (in lieu of the value calculated in STEP 3 of subdivision (1)) when calculating compliance under subdivision (1).

(E) In any month that a system practicing enhanced softening lowers alkalinity below sixty (60) milligrams per liter (as CaCO<sub>3</sub>), the system may assign a monthly value of one and zero-tenths (1.0) (in lieu of the value calculated in STEP 3 of subdivision (1)) when calculating compliance under subdivision (1).

(3) Subpart H systems using conventional treatment may also comply with the requirements of this section by meeting the criteria in subsection (a)(2) or (a)(3).

(d) The commissioner identifies the following as treatment techniques for Subpart H systems to control the level of disinfection byproduct precursors in drinking water treatment and distribution systems:

- (1) Conventional treatment.
- (2) Enhanced coagulation.

(3) Enhanced softening.

(*Water Pollution Control Board; 327 IAC 8-2.5-9; filed May 1, 2003, 12:00 p.m.: 26 IR 2851*)

### **Rule 2.6. Enhanced Filtration and Disinfection**

- 327 IAC 8-2.6-1 General requirements; enhanced filtration and disinfection
- 327 IAC 8-2.6-2 Disinfection profiling and benchmarking
- 327 IAC 8-2.6-3 Enhanced filtration
- 327 IAC 8-2.6-4 Filtration sampling requirements
- 327 IAC 8-2.6-5 Enhanced filtration and disinfection reporting and record keeping requirements
- 327 IAC 8-2.6-6 Filter backwash

### **327 IAC 8-2.6-1 General requirements; enhanced filtration and disinfection**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2

**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 1. (a) Upon the effective date of this rule, unless otherwise specified in this section, all subpart H systems serving a population of at least ten thousand (10,000) individuals shall establish treatment technique requirements in lieu of maximum contaminant levels for the following contaminants:

- (1) *Giardia lamblia*.
- (2) Viruses.
- (3) Heterotrophic plate count bacteria.
- (4) *Legionella*.
- (5) *Cryptosporidium*.
- (6) Turbidity.

The systems shall also provide treatment of their source water that complies with these treatment technique requirements in addition to those identified in 327 IAC 8-2-8.5.

(b) The treatment technique requirements consist of installing and properly operating water treatment processes that reliably achieve the following:

(1) At least ninety-nine percent (99%) (2-log) removal of *Cryptosporidium* between a point where the raw water is not subject to recontamination by surface water run-off and a point downstream before or at the first customer for filtered systems, or *Cryptosporidium* control under the water shed control plan for unfiltered systems.

(2) Compliance with the profiling and benchmark requirements under section 2 of this rule.

(c) A public water system subject to the requirements of this section is considered to be in compliance with the requirements of subsections (a) and (b) if it meets the:

- (1) disinfection requirements in 327 IAC 8-2-8.6 and section 2 of this rule; or
- (2) applicable filtration requirements in either 327 IAC

8-2-8.5 or section 3 of this rule and the disinfection requirements in 327 IAC 8-2-8.6 and section 2 of this rule.

(d) Subpart H systems serving a population of greater than ten thousand (10,000) are not permitted to begin construction of uncovered finished water storage facilities after the effective date of this rule. (*Water Pollution Control Board; 327 IAC 8-2.6-1; filed May 1, 2003, 12:00 p.m.: 26 IR 2854*)

### **327 IAC 8-2.6-2 Disinfection profiling and benchmarking**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2

**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 2. (a) A public water system subject to the requirements of this section will determine its TTHM annual average using the procedure in subdivision (1) and its HAA5 annual average using the procedure in subdivision (2). The annual average is the arithmetic average of the quarterly averages of four (4) consecutive quarters of monitoring. A public water system subject to the requirements of this section shall meet the following monitoring requirements to determine its TTHM annual average and its HAA5 annual average:

(1) The TTHM annual average must be the annual average during the same period as is used for the HAA5 annual average. Those subpart H systems serving a population of greater than ten thousand (10,000) individuals that:

(A) collected data under 40 CFR 141\* must use the results of the samples collected during the last four (4) quarters of required monitoring under 40 CFR 141.142\*;

(B) use grandfathered HAA5 occurrence data that meet the provisions of subdivision (2)(B) must use the TTHM data collected at the same time under 327 IAC 8-2-5(a) and 327 IAC 8-2-5.3; and

(C) use HAA5 occurrence data that meet the provisions of subdivision (2)(C)(i) must use the TTHM data collected at the same time under 327 IAC 8-2-5(a) and 327 IAC 8-2-5.3.

(2) The HAA5 annual average must be the annual average during the same period as is used for the TTHM annual average. Those subpart H systems serving a population of greater than ten thousand (10,000) individuals that:

(A) collected data under 40 CFR 141\* must use the results of the samples collected during the last four (4) quarters of required monitoring under 40 CFR 141.142\*;

(B) have collected four (4) quarters of HAA5 occur-

rence data that meets the routine monitoring sample number and location requirements for TTHM in 327 IAC 8-2-5(a) and 327 IAC 8-2-5.3 and handling and analytical method requirements of 40 CFR 141.142(b)(1)\* may use those data to determine whether the requirements of this section apply; and (C) have not collected four (4) quarters of HAA5 occurrence data that meets the provisions of either clause (A) or (B) by March 16, 1999, must either:

(i) conduct monitoring for HAA5 that meets the routine monitoring sample number and location requirements for TTHM in 327 IAC 8-2-5(a), 327 IAC 8-2-5.3, and handling and analytical method requirements of 40 CFR 141.142(b)(1)\* to determine the HAA5 annual average and whether the requirements of subsection (b) apply. This monitoring must be completed so that the applicability determination can be made no later than March 31, 2000; or

(ii) comply with all other provisions of this section as if the HAA5 monitoring had been conducted and the results required compliance with subsection (b).

(3) Subpart H systems serving a population of greater than ten thousand (10,000) individuals may request that the commissioner approve a more representative annual data set than the data set determined under subdivision (1) or (2) for the purpose of determining applicability of the requirements of this section.

(4) The commissioner may require that a system use a more representative annual data set than the data set determined under subdivision (1) or (2) for the purpose of determining applicability of the requirements of this section.

(5) Subpart H systems serving a population of greater than ten thousand (10,000) individuals shall submit data to the commissioner based on the following schedules:

(A) Those subpart H systems serving a population of greater than ten thousand (10,000) individuals that collected TTHM and HAA5 data under 40 CFR 141\*, as required by subdivisions (1)(A) and (2)(A), shall submit the results of the samples collected during the last twelve (12) months of monitoring required under 40 CFR 141.142\* not later than December 31, 1999.

(B) Those subpart H systems serving a population of greater than ten thousand (10,000) individuals that have collected four (4) consecutive quarters of HAA5 occurrence data that meets the routine monitoring sample number and location for TTHM in 327 IAC 8-2-5(a), 327 IAC 8-2-5.3, and handling and analytical method requirements of 40 CFR

141.142(b)(1)\*, as allowed by subdivisions (1)(B) and (2)(B), must submit those data to the commissioner not later than April 15, 1999. Until the commissioner has approved the data, the system shall conduct monitoring for HAA5 using the monitoring requirements specified under subdivision (2)(C).

(C) Subpart H systems serving a population of greater than ten thousand (10,000) individuals that conduct monitoring for HAA5 using the monitoring requirements specified by subdivision (2)(C)(i), shall submit TTHM and HAA5 data not later than March 31, 2000.

(D) Those systems that elect to comply with all other provisions of this section as if the HAA5 monitoring had been conducted and the results required compliance with this section, as allowed under subdivision (2)(C)(ii), shall notify the commissioner in writing of their election not later than December 31, 1999.

(E) If the system elects to represent that the commissioner approve a more representative annual data set than the data set determined under subdivision (2)(A), the system must submit this request in writing not later than December 31, 1999.

(6) Any subpart H systems serving a population of greater than ten thousand (10,000) individuals having either a TTHM annual average greater than or equal to sixty-four thousandths (0.064) milligram per liter or an HAA5 annual average greater than or equal to forty-eight thousandths (0.048) milligram per liter during the period identified in subdivisions (1) and (2) shall comply with subsection (b).

(b) Disinfection profiling requirements are as follows:

(1) Any subpart H system serving a population of greater than ten thousand (10,000) individuals that meets the criteria in subsection (a)(6) shall develop a disinfection profile of its disinfection practice for a period of up to three (3) years.

(2) Not later than April 1, 2000, subpart H systems serving a population of greater than ten thousand (10,000) individuals shall monitor daily for a period of twelve (12) consecutive calendar months to determine the total logs of inactivation for each day of operation based on the CT99.9 values in Tables 1.1 through 1.6, 2.1, and 3.1 of 40 CFR 141.74(b)\*, as appropriate, through the entire treatment plant. At a minimum, subpart H systems serving a population of greater than ten thousand (10,000) individuals with a single or multiple point of disinfectant application prior to entrance to the distribution system shall conduct the monitoring in clauses (A) through (D) for each disinfection segment. The system shall monitor the parameters necessary to determine the total inactivation ratio using analytical methods in 327 IAC 8-2-8.7 as fol-

lows:

(A) The temperature of the disinfection water shall be measured one (1) time per day at each residual disinfectant concentration sampling point during peak hourly flow.

(B) If the system uses chlorine, the pH of the disinfected water shall be measured one (1) time per day at each chlorine residual disinfectant concentration sampling point during peak hourly flow.

(C) The disinfectant contact time (T) shall be determined for each day during peak hourly flow.

(D) The residual disinfectant concentration (C) of the water before or at the first customer and prior to each additional point of disinfection shall be measured each day during peak hourly flow.

(3) In lieu of the monitoring conducted under subdivision (2) to develop the disinfection profile, subpart H systems serving a population of greater than ten thousand (10,000) individuals may elect to meet either of the following requirements:

(A) Not later than March 31, 2000, subpart H systems serving a population of greater than ten thousand (10,000) individuals that has three (3) years of existing operational data may submit those data, a profile generated using those data, and a request that the commissioner approve use of those data in lieu of monitoring under subdivision (2). The commissioner shall determine whether these operational data are substantially equivalent to data collected under subdivision (2) and whether these data are representative of *Giardia lamblia* inactivation through the entire treatment plant and not just of certain treatment segments. Until the commissioner approves this request, the system is required to conduct monitoring under subdivision (2).

(B) In addition to the disinfection profile generated under subdivision (2), subpart H systems serving a population of greater than ten thousand (10,000) individuals that has existing operational data may use those data to develop a disinfection profile for additional years. Subpart H systems serving a population of greater than ten thousand (10,000) may use these additional yearly disinfection profiles to develop a benchmark under subsection (c). The commissioner shall determine whether these operational data are substantially equivalent to data collected under subdivision (2). These data must also be representative of inactivation through the entire treatment plant and not just of certain treatment segments.

(4) Subpart H systems serving a population of greater than ten thousand (10,000) individuals shall calculate the total inactivation ratio as follows:

(A) If the system uses only one (1) point of disinfectant application, the system may determine the total inactivation ratio for the disinfection segment by using either of the following methods:

(i) Determine one (1) inactivation ratio ( $CT_{calc}/CT_{99,9}$ ) before or at the first customer during peak hourly flow.

(ii) Determine successive  $CT_{calc}/CT_{99,9}$  values, representing sequential inactivation ratios, between the point of disinfectant application and a point before or at the first customer during peak hourly flow. Under this alternative, the system must calculate the total inactivation ratio by determining ( $CT_{calc}/CT_{99,9}$ ) for each sequence and then adding the ( $CT_{calc}/CT_{99,9}$ ) values together to determine ( $\Sigma (CT_{calc}/CT_{99,9})$ ).

(B) Subpart H systems serving a population of greater than ten thousand (10,000) individuals that use more than one (1) point of disinfectant application before the first customer shall determine the CT value of each disinfection segment immediately prior to the next point of disinfectant application, or for the final segment, before or at the first customer, during peak hourly flow. The ( $CT_{calc}/CT_{99,9}$ ) value of each segment and ( $\Sigma (CT_{calc}/CT_{99,9})$ ) shall be calculated using the method in clause (A).

(C) Subpart H systems serving a population of greater than ten thousand (10,000) individuals shall determine the total logs of inactivation by multiplying the value calculated in clause (A) or (B) by three and zero-tenths (3.0).

(5) Subpart H systems serving a population of greater than ten thousand (10,000) individuals that use either chloramines or ozone for primary disinfection shall also calculate the logs of inactivation for viruses using a method approved by the commissioner.

(6) Subpart H systems serving a population of greater than ten thousand (10,000) individuals shall retain disinfection profile data in graphic form, as a spreadsheet, or in some other format acceptable to the commissioner for review as part of sanitary surveys conducted by the commissioner.

(c) Disinfection benchmarking requirements are as follows:

(1) A Subpart H system serving a population of greater than ten thousand (10,000) individuals required to develop a disinfection profile under subsections (a) and (b) that decides to make a significant change to its disinfection practice shall consult with the commissioner prior to making such change. As used in this subdivision, "significant changes" means the following:

(A) Changes to the point of disinfection.

(B) Changes to the disinfectants used in the treatment plant.

(C) Changes to the disinfection process.

(D) Any other modification identified by the commissioner.

(2) A subpart H system serving a population of greater than ten thousand (10,000) individuals that is modifying its disinfection practice shall calculate its disinfection benchmark using the following procedures:

(A) Subpart H systems serving a population of greater than ten thousand (10,000) individuals shall determine the lowest average monthly Giardia lamblia inactivation for each year of profiling data collected and calculated under subsection (b). The system shall determine the average Giardia lamblia inactivation for each calendar month for each year of profiling data by dividing the sum of daily Giardia lamblia inactivation by the number of values calculated for that month.

(B) The disinfection benchmark is the lowest monthly average value (for subpart H systems serving a population of greater than ten thousand (10,000) with one (1) year of profiling data) or average of lowest monthly average values (for subpart H systems serving a population of greater than ten thousand (10,000) individuals with more than one (1) year of profiling data) of the monthly logs of Giardia lamblia inactivation for each year of profiling data.

(C) Subpart H systems serving a population of greater than ten thousand (10,000) individuals that use either chloramines or ozone for primary disinfection shall also calculate the disinfection benchmark for viruses using a method approved by the commissioner.

(D) The system shall submit the following information to the commissioner as part of its consultation process:

(i) A description of the proposed change in disinfection practice.

(ii) The disinfection profile for Giardia lamblia (and, if necessary, viruses) under subsection (b) and benchmark as required by this subsection.

(iii) An analysis of how the proposed change will affect the current levels of disinfection.

\*40 CFR 141, 40 CFR 141.142, 40 CFR 141.142(b)(1), and 40 CFR 141.74(b) are incorporated by reference and are available for copying at the Indiana Department of Environmental Management, Office of Water Quality, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-2.6-2; filed May 1, 2003, 12:00 p.m.: 26 IR 2854*)

**327 IAC 8-2.6-3 Enhanced filtration**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2

**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 3. By December 31, 2001, subpart H systems serving a population of greater than ten thousand (10,000) individuals shall provide treatment consisting of both disinfection, as specified in 327 IAC 8-2-8.6, and filtration treatment that complies with the following:

(1) Requirements for systems using conventional filtration or direct filtration are as follows:

(A) For Subpart H systems serving a population of greater than ten thousand (10,000) individuals using conventional filtration or direct filtration, the turbidity level of representative samples of the system's filtered water must be less than or equal to three-tenths (0.3) nephelometric turbidity unit in at least ninety-five percent (95%) of the measurements taken each month, measured as specified in 327 IAC 8-2-8.7 and 327 IAC 8-2-8.8.

(B) The turbidity level of representative samples of the system's filtered water must at no time exceed one (1) nephelometric turbidity unit, measured as specified in 327 IAC 8-2-8.7 and 327 IAC 8-2-8.8.

(C) A system that uses lime softening may acidify representative samples prior to analysis using a protocol approved by the commissioner.

(2) A Subpart H system serving a population greater than ten thousand (10,000) may use filtration technologies other than conventional filtration treatment, direct filtration, slow sand filtration, or diatomaceous earth filtration if it demonstrates to the commissioner, using pilot plant studies or other means, that the alternative filtration technology, in combination with disinfection treatment that meets the requirements of 327 IAC 8-2-8.6, consistently achieves ninety-nine and nine-tenths percent (99.9%) removal or inactivation of *Giardia lamblia* cysts and ninety-nine and ninety-nine hundredths percent (99.99%) removal or inactivation of viruses, and ninety-nine percent (99%) removal of *Cryptosporidium* oocysts, and the commissioner approves the use of the filtration technology.

(3) For each approval under subdivision (2), the commissioner will set turbidity performance requirements that the system must meet at least ninety-five percent (95%) of the time and that the system may not exceed at any time at a level that consistently achieves ninety-nine and nine-tenths percent (99.9%) removal or inactivation of *Giardia lamblia* cysts, ninety-nine and ninety-nine hundredths percent (99.99%) removal or inactivation of viruses, and ninety-nine percent (99%) removal of *Cryptosporidium* oocysts.

*(Water Pollution Control Board; 327 IAC 8-2.6-3; filed May 1, 2003, 12:00 p.m.: 26 IR 2857)*

**327 IAC 8-2.6-4 Filtration sampling requirements**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2

**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 4. (a) In addition to monitoring required by 327 IAC 8-2-8.7, a Subpart H system serving a population of greater than ten thousand (10,000) individuals that provides conventional filtration treatment or direct filtration shall comply with the following:

(1) Conduct continuous monitoring of turbidity for each individual filter using an approved method in 327 IAC 8-2-8.7.

(2) Calibrate turbidimeters using the procedure specified by the manufacturer.

(3) Record the results of individual filter monitoring every fifteen (15) minutes.

(b) If there is a failure in the continuous turbidity monitoring equipment, Subpart H systems serving a population of greater than ten thousand (10,000) individuals must conduct grab sampling every four (4) hours in lieu of continuous monitoring, but for no more than five (5) working days following the failure of the equipment. *(Water Pollution Control Board; 327 IAC 8-2.6-4; filed May 1, 2003, 12:00 p.m.: 26 IR 2857)*

**327 IAC 8-2.6-5 Enhanced filtration and disinfection reporting and record keeping requirements**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2

**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 5. Beginning January 1, 2002, a Subpart H system serving a population of greater than ten thousand (10,000) individuals that is subject to the requirements of section 3 of this rule and provides conventional filtration treatment or direct filtration shall meet the following requirements in addition to the reporting and record keeping requirements in 327 IAC 8-2-14:

(1) Turbidity measurements as required by section 3 of this rule shall be reported within ten (10) days after the end of each month the system serves water to the public. Information that shall be reported includes the following:

(A) The total number of filtered water turbidity measurements taken during the month.

(B) The number and percentage of filtered water turbidity measurements taken during the month which are less than or equal to the turbidity limits specified in section 3 of this rule.

(C) The date and value of any turbidity measurements taken during the month that exceed:

- (i) one and zero-tenths (1.0) nephelometric turbidity unit for systems using conventional filtration treatment or direct filtration; or
- (ii) the maximum level set by the commissioner under section 3 of this rule. This reporting requirement is in lieu of the reporting specified in 327 IAC 8-2-14(b).

(2) Subpart H systems serving a population of greater than ten thousand (10,000) individuals shall maintain the results of individual filter monitoring taken under section 4 of this rule for at least three (3) years. These systems shall report that they have conducted individual filter turbidity monitoring under section 3 of this rule within ten (10) days after the end of each month they serve water to the public if measurements demonstrate one (1) or more of the following conditions:

(A) For any individual filter that has a measured turbidity level of greater than one and zero-tenths (1.0) nephelometric turbidity unit in two (2) consecutive measurements taken fifteen (15) minutes apart, subpart H systems serving a population of greater than ten thousand (10,000) individuals shall report the filter number, the turbidity measurement, and the date on which the exceedance occurred. In addition, the system shall either produce a filter profile for the filter within seven (7) days of the exceedance, if the system is not able to identify an obvious reason for the abnormal filter performance, and report that the profile has been produced or report the obvious reason for the exceedance.

(B) For any individual filter that has a measured turbidity level of greater than five-tenths (0.5) in two (2) consecutive measurements taken fifteen (15) minutes apart at the end of the first four (4) hours of continuous filter operation after the filter has been backwashed or otherwise taken off-line, subpart H systems serving a population of greater than ten thousand (10,000) individuals shall report the filter number, the turbidity, and the date on which the exceedance occurred. In addition, the system shall either produce a filter profile for the filter within seven (7) days of the exceedance, if the system is not able to identify an obvious reason for the abnormal filter performance, and report that the profile has been produced or report the obvious reason for the exceedance.

(C) For any individual filter that has a measured turbidity level of greater than one and zero-tenths (1.0) nephelometric turbidity unit in two (2) consecutive measurements taken fifteen (15) minutes apart at any time in each of three (3) consecutive months,

subpart H systems serving a population of greater than ten thousand (10,000) shall report the filter number, the turbidity measurement, and the date on which the exceedance occurred. In addition, the system shall conduct a self-assessment of the filter within fourteen (14) days of the exceedance and report that the self-assessment was conducted. The self-assessment shall consist of at least the following components:

- (i) Assessment of filter performance.
- (ii) Development of a filter profile.
- (iii) Identification and prioritization of factors limiting filter performance.
- (iv) Assessment of the applicability of corrections.
- (v) Preparation of a filter self-assessment report.

(D) For any individual filter that has a measured turbidity level of greater than two and zero-tenths (2.0) nephelometric turbidity units in two (2) consecutive measurements taken fifteen (15) minutes apart at any time in each of two (2) consecutive months, subpart H systems serving a population of greater than ten thousand (10,000) individuals shall report the filter number, the turbidity measurement, and the date on which the exceedance occurred. In addition, the system shall arrange for the conduct of a comprehensive performance evaluation by the commissioner or a third party approved by the commissioner no later than thirty (30) days following the exceedance and have the evaluation completed and submitted to the commissioner no later than ninety (90) days following the exceedance.

(3) Additional reporting requirements are as follows:

(A) If at any time the turbidity exceeds one and zero-tenths (1.0) nephelometric turbidity unit in representative samples of filtered water in a subpart H system serving a population of greater than ten thousand (10,000) individuals using conventional filtration treatment or direct filtration, the system shall inform the commissioner as soon as possible, but no later than the end of the next business day.

(B) If at any time the turbidity in representative samples of filtered water exceeds the maximum level set by the commissioner under section 3 of this rule for filtration technologies other than conventional filtration treatment, direct filtration, slow sand filtration, or diatomaceous earth filtration, subpart H systems serving a population of greater than ten thousand (10,000) individuals shall inform the commissioner as soon as possible, but no later than the end of the next business day.

Systems that use lime softening may apply to the commissioner for alternative exceedance levels for the levels specified in subdivision (2) and this subdivision

if they can demonstrate that higher turbidity levels in individual filters are due to lime carryover only and not due to degraded filter performance.

*(Water Pollution Control Board; 327 IAC 8-2.6-5; filed May 1, 2003, 12:00 p.m.: 26 IR 2857)*

### **327 IAC 8-2.6-6 Filter backwash**

**Authority:** IC 13-13-5-1; IC 13-14-8-2; IC 13-14-8-7; IC 13-18-3-2

**Affected:** IC 13-12-3-1; IC 13-13-5-2; IC 13-14-9; IC 13-18-11

Sec. 6. All subpart H systems that employ conventional filtration or direct filtration treatment and recycle spent filter backwash water, thickener supernatant, or liquids from dewatering processes shall meet the following requirements:

(1) A system shall notify the commissioner in writing by December 8, 2003, if the system recycles spent filter backwash water, thickener supernatant, or liquids from dewatering processes. This notification shall include, at a minimum, the following information:

(A) A plant schematic showing:

- (i) the origin of all flows which are recycled, including, but not limited to, spent filter backwash water, thickener supernatant, and liquids from dewatering processes;
- (ii) the hydraulic conveyance used to transport the spent filter backwash water, thickener supernatant, and liquids from dewatering processes; and
- (iii) the location where spent filter backwash water, thickener supernatant, and liquids from dewatering processes are reintroduced back into the treatment plant.

(B) Typical recycle flow in gallons per minute.

(C) The highest observed plant flow experienced in the previous year in gallons per minute.

(D) Design flow for the treatment plant in gallons per minute.

(E) Commissioner-approved operating capacity for the plant where the commissioner has made such determinations.

(2) Any system that recycles spent filter backwash water, thickener supernatant, or liquids from dewatering processes shall return these flows through the processes of a system's existing conventional or direct filtration system as defined in 327 IAC 8-2-1(14) and 327 IAC 8-2-1(18), or at an alternate location approved by the commissioner by June 8, 2004. If capital improvements are required to modify the recycle location to meet the requirement in this subdivision, all capital improvements shall be completed no later than June 8, 2006.

(3) Subpart H systems shall collect and retain on file

the following recycle flow information on forms provided by the department for review and evaluation by the commissioner beginning June 8, 2004:

(A) Copy of the recycle notification and information submitted to the commissioner under subdivision (1)(B) through (1)(E).

(B) List of all recycle flows and the frequency with which they are returned.

(C) Average and maximum backwash flow rate through the filters and the average and maximum duration of the filter backwash process in minutes.

(D) Typical filter run length and a written summary of how filter run length is determined.

(E) The type of treatment provided for the recycle flow.

(F) Data on the physical dimensions of the equalization and treatment units, typical and maximum hydraulic loading rates, type of treatment chemicals used and average dose and frequency of use, and frequency at which solids are removed, if applicable.

*(Water Pollution Control Board; 327 IAC 8-2.6-6; filed May 1, 2003, 12:00 p.m.: 26 IR 2859)*

### **Rule 3. Public Water Supply Construction Permits**

327 IAC 8-3-1	Definitions
327 IAC 8-3-1.1	Proof of capacity
327 IAC 8-3-2	Permits for construction of public water supplies; exemptions, experimental construction permits, emergency construction permits, after-the-fact construction permits
327 IAC 8-3-3	Application for permits
327 IAC 8-3-4	Issuance requirements
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#### **327 IAC 8-3-1 Definitions**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-12; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2; IC 25-31

Sec. 1. In addition to the definitions contained in IC 13-11-2 and 327 IAC 1, the following definitions apply throughout this rule:

(1) "Connection ban" means an order imposed by the commissioner in accordance with section 4.2 of this rule.

(2) "Distribution system" means the piping, storage structures, pumps, and controls used to deliver water to

the public.

(3) "Early warning order" means an order imposed by the commissioner in accordance with section 4.2 of this rule.

(4) "Experimental permit" means a construction permit issued for an installation, treatment process, or technique for which extensive experience and records of use have not been accumulated to meet the Safe Drinking Water Act requirements.

(5) "Normal operating pressure" means the water main pressure maintained regardless of public service load in the absence of extenuating circumstances.

(6) "Operator" means the person in direct or responsible charge and supervising the operation of a wastewater or water treatment plant or a water distribution system.

(7) "Peak operating flowrate" means the flowrate equal to maximum achievable capacity of the public water system.

(8) "Professional engineer" means a person who is registered as a professional engineer by the Indiana state board of registration for professional engineers under IC 25-31.

(9) "Public water system" means a public water supply for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen (15) service connections or regularly serves at least twenty-five (25) individuals daily at least sixty (60) days out of the year. The term includes any collection, treatment, storage, and distribution facilities under control of the operator of such system, and used primarily in connection with such system and any collection or pretreatment storage facilities not under such control that are used primarily in connection with such system.

(10) "Satisfactory quality" means the physical, chemical, and bacteriological quality of drinking water meeting the requirements set forth in this article.

(11) "Two (2) year average peak" means the arithmetic mean of the highest five (5) daily pumpages as reported over the previous two (2) year period on the public water system's monthly report of operations on record with the department. If the public water system is less than two (2) years old, the term means the arithmetic mean of the highest five (5) daily pumpages as reported on the public water system's monthly report of operations on record with the department.

(12) "Water main" means any pipe located between all entry points to the distribution system and all customer service connection meters.

*(Water Pollution Control Board; 327 IAC 8-3-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 709; filed Oct 22, 1991, 5:00 p.m.: 15 IR 223; filed Mar 31, 1999, 1:50 p.m.: 22*

*IR 2493; filed Mar 6, 2000, 7:56 a.m.: 23 IR 1626; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3-1.1 Proof of capacity**

**Authority:** IC 13-13-5; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-21-3

**Affected:** IC 13-18-16

Sec. 1.1. (a) A new community public water supply system and a new nontransient noncommunity public water supply system that will commence operation after October 1, 1999, must fulfill the requirements of 327 IAC 8-3.6 prior to making a submission to the commissioner for a permit to construct as described in sections 2 and 3 of this rule.

(b) The commissioner shall deny and return to the applicant a construction permit application, plans, or specifications that are submitted for review without the proof of public water supply system technical, financial, and managerial capacity as required by 327 IAC 8-3.6. *(Water Pollution Control Board; 327 IAC 8-3-1.1; filed Aug 10, 1999, 8:54 a.m.: 22 IR 3678; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3-2 Permits for construction of public water supplies; exemptions, experimental construction permits, emergency construction permits, after-the-fact construction permits**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 2. (a) No person shall cause or allow the construction, installation, or modification of any facility, equipment, or device for any public water system without having a valid construction permit issued by the commissioner, except for replacement of equipment of similar design and capacity, none of which will change adversely the plant operation, its hydraulic design or waste products, or the distribution system design, operation, or capacity.

(b) After the commissioner has granted a construction permit, no changes in the application, plans, or specifications shall be made other than changes involving the replacement of equipment of similar design and capacity, none of which will change adversely the plant operation, its hydraulic design or waste products, or the distribution system design, operation, or capacity without first submitting in writing to the commissioner a detailed statement of such proposed changes and receiving an amended construction permit from the commissioner. Construction permits shall become void if the construction is not started within one (1) year from the date of

issuance of the permit unless the duration of the permit has been extended by the commissioner after receiving a written request from the permittee, prior to the expiration of the permit, requesting such extension with no other changes to the permit, application, plans, or specifications as approved by the commissioner.

(c) The commissioner shall have the authority to specify in the permit any limits and conditions necessary to meet the issuance requirements of section 4 of this rule.

(d) The commissioner may revoke any construction permit for noncompliance with the limits and conditions specified in the permit, or if significant and unapproved changes are made in construction that differ from the application, plans, and specifications on which the issuance of the permit was based.

(e) The commissioner may issue construction permits for public water system facilities, equipment, or devices that are to be installed or constructed in stages. These construction permits may allow site preparation or foundation construction to begin where the following conditions have been met:

(1) Plans and specifications for additional facilities, equipment, or devices that will be used in the treatment, pumping, withdrawal, or conveyance of water for public consumption must be approved by the commissioner prior to the construction of said facilities, equipment, or devices in accordance with this section.

(2) Public water system facilities, equipment, or devices that are not used for the treatment, pumping, withdrawal, or conveyance of water for public consumption must conform to the requirements of the "Recommended Standards for Water Works" established by the Great Lakes—Upper Mississippi River Board of State Public Health and Environmental Managers, and the American Water Works Association (AWWA) standards.

(f) In order to encourage the development of new or more efficient treatment processes, the following type of construction permits may be issued:

(1) Experimental construction permits may be issued by the commissioner for installations, treatment processes, or techniques that have not developed extensive experience or records of use in the state of Indiana, provided that the applicant submits evidence that the installation, process, or technique will produce drinking water of satisfactory quality and normal operating pressure at the peak operating flowrate in accordance with this article.

(2) Regular construction permits may be issued for installations, treatment processes, or techniques that have been used for sufficient time to show that the installation, treatment process, or technique will

produce drinking water of satisfactory quality and normal operating pressure at the peak operating flowrate in accordance with this article.

(g) For an emergency condition, as a result of a drought, storm, flood, or other natural or manmade disaster, the commissioner may issue an emergency construction permit.

(h) An after-the-fact construction permit must be obtained from the commissioner upon notification to the public water system by the commissioner of completed or progressing construction, installation, or modification of any facility, equipment, or device for any public water system lacking a valid construction permit issued from the department, except where replacement of equipment of similar design and capacity will not change adversely the plant operation, its hydraulic design or waste products, or the distribution system design, operation, or capacity. The following additional conditions apply to after-the-fact construction permits:

(1) The commissioner may order that no additional construction may commence or continue progress until the after-the-fact construction permit has been obtained.

(2) As-built plans and specifications certified by a professional engineer registered in Indiana, covering all work performed without a valid construction permit issued by the commissioner must be submitted to the commissioner within one hundred twenty (120) days of notification to the public water system by the commissioner.

(3) Modifications as required by the commissioner after review of the as-built plans and specifications shall be made within the time limits specified by the commissioner.

(4) The commissioner may require interim measures taken during review of an after-the-fact construction permit, including boil orders to ensure safe drinking water of satisfactory quality and normal operating pressure at the peak operating flowrate in accordance with this article.

(5) An after-the-fact construction permit does not relieve a public water system or any other person of any liability for construction without a valid permit from the commissioner.

*(Water Pollution Control Board; 327 IAC 8-3-2; filed Sep 24, 1987, 3:00 p.m.: 11 IR 709; filed Oct 22, 1991, 5:00 p.m.: 15 IR 224; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2494; errata filed Aug 30, 1999, 12:06 p.m.: 23 IR 25; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3-3 Application for permits**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 4-21.5-3-5; IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 3. (a) A properly executed application form shall accompany the plans and specifications submitted to the commissioner for the purposes of obtaining a permit. Application forms may be obtained from the commissioner upon request or computer-generated if the computer-generated form is similar in appearance and identical in content to the form generated by the commissioner. A properly executed application form shall include the following:

- (1) Name, address, identification number, and telephone number of the public water system.
- (2) Name, address, and telephone number of the engineering firm and the developing firm.
- (3) Name, address, and title of the person who is to receive the permit (generally the person representing the funding entity of the construction project).
- (4) Location, brief description, and source of funding for the construction project.
- (5) A list and corresponding mailing labels of all potentially affected parties as defined by IC 4-21.5-3-5(b).
- (6) A dated signature certifying that, to the best of the public water system's knowledge, all potentially affected parties, as defined by IC 4-21.5-3-5(b), have been listed.

(b) The applications, plans, and specifications along with any reports and other information shall be submitted using a format and meeting content requirements approved by the commissioner.

(c) All plans, specifications, and applications must be prepared by or under the direct supervision of a professional engineer registered in Indiana and shall bear the seal and certification of the professional engineer certifying that construction of the proposed project following the application, plans, and specifications will produce drinking water of satisfactory quality and normal operating pressure at the peak operating flowrate in accordance with this article.

(d) A proposed construction project that is the subject of an application for a construction permit must be entirely independently based on existing public water system facilities or proposed construction projects with effective construction permits, issued by the commissioner, that are not the subject of the application.

(e) The commissioner may require additional information, within the context of a permit application, to determine whether the proposed facility will meet the issuance requirements of section 4 of this rule.

(f) Whenever the commissioner requires information, within the context of a permit application, regarding existing water supply facilities or water treatment works, or regarding the operation and maintenance thereof, this information shall be submitted to the commissioner

within thirty (30) days of such request.

(g) A public water system proposing to install or construct facilities, equipment, or devices under a staged permitting process must submit the following along with the initial permit application as allowed under section 2(e) of this rule:

- (1) A proposed schedule for the construction of the entire project.
- (2) A proposed schedule for the application or applications for the remainder of the staged parts of the total construction project.

*(Water Pollution Control Board; 327 IAC 8-3-3; filed Sep 24, 1987, 3:00 p.m.: 11 IR 710; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2496; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3-4 Issuance requirements**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 4. The commissioner may deny the application for any permit required by this rule unless the applicant submits evidence that the following issuance requirements are met:

- (1) The facility is designed to be constructed, modified, or installed, and operated in such a manner that it will not violate any of the sanitary or health regulations or requirements existing at the time of application for the permit.
- (2) The facility conforms to the design criteria in the "Recommended Standards for Water Works" established by the Great Lakes—Upper Mississippi River Board of State Public Health and Environmental Managers, the American Water Works Association (AWWA) standards, or is based on such criteria acceptable to the commissioner which the applicant shows will produce drinking water of satisfactory quality and normal operating pressure at the peak operating flowrate in accordance with this article.
- (3) The facility will conform to any additional requirements specified by the commissioner to produce consistently satisfactory results.
- (4) The plans for wastewater disposal meet the requirements of the commissioner.
- (5) All additional substantiating information requested by the commissioner has been submitted.

*(Water Pollution Control Board; 327 IAC 8-3-4; filed Sep 24, 1987, 3:00 p.m.: 11 IR 710; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2496; errata filed Aug 30, 1999, 12:06 p.m.: 23 IR 25; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 8-3-4.2 Public water system water main extension early warning order and connection ban**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 4-21.5; IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 4.2. (a) For use in this section, the public water system's capacity shall be calculated by the methods outlined in 327 IAC 8-3.3.

(b) The commissioner may issue an early warning order to a public water system if the public water system's highest daily pumpage, as reported over the previous two (2) year period, on the public water system's monthly report of operations, on record with the department, exceeds ninety percent (90%) of the public water system's capacity.

(c) An early warning order shall require the public water system to submit one (1) of the following within one hundred twenty (120) days of the date of an early warning order:

- (1) A report regarding the public water system's:
  - (A) technical, managerial, and financial capacity demonstrating that the public water system can maintain normal operations and remain viable; and
  - (B) anticipated capacity utilization plans covering, in the minimum, the upcoming twenty-four (24) months.
- (2) A report regarding the public water system's proposed plans covering, in the minimum, the upcoming twenty-four (24) months to increase the capacity of the public water system or to decrease the customer demand.
- (3) A report demonstrating that the public water system's current two (2) year average peak does not exceed ninety percent (90%) of the public water system's capacity.

(d) The commissioner may impose a connection ban under circumstances where:

- (1) one hundred twenty (120) calendar days have passed since the issuance date of the early warning order;
- (2) the public water system's current two (2) year average peak exceeds ninety percent (90%) of the public water system's capacity; and
- (3) one (1) of the following has occurred:
  - (A) The public water system has not complied with subsection (c).
  - (B) The public water system has failed to demonstrate that the public water system's technical, managerial, and financial capacity can maintain normal operations and remain viable.
  - (C) The public water system has failed to implement

the public water system's proposed twenty-four (24) month plan to increase the capacity of the public water system or decrease the customer demand.

(e) The connection ban imposed by the commissioner shall prohibit the connection of additional water main extensions to the public water system.

(f) The commissioner shall give written notification to the public water system, by certified mail with return receipt requested, of the decision to impose an early warning order or a connection ban.

(g) The commissioner may terminate an early warning order or a connection ban only after the commissioner has approved one (1) of the following:

- (1) A report submitted pursuant to subsection (c).
- (2) A report demonstrating that the public water system's current two (2) year average peak does not exceed ninety percent (90%) of the public water system's capacity.

(h) A project with a valid construction permit, issued by the commissioner, with an effective date preceding a connection ban issued by the commissioner, is exempt from the connection ban.

(i) An emergency construction permit, as described in section 2(f) of this rule, may be issued by the commissioner to a public water system with a connection ban.

(j) A public water system aggrieved by the imposition of an early warning order, a connection ban, or a denial to terminate an early warning order or a connection ban may appeal the decision of the commissioner at a hearing held in accordance with IC 4-21.5. (*Water Pollution Control Board; 327 IAC 8-3-4.2; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2497; errata filed Aug 30, 1999, 12:06 p.m.: 23 IR 25; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-3-5 Modification or revocation of permits**

**Authority:** IC 13-7-7-5; IC 13-7-14-5

**Affected:** IC 13-7-7-5; IC 13-7-10-5; IC 13-7-14-5

Sec. 5. Permits shall be modified or revoked pursuant to the provision of IC 13-7-10-5. (*Water Pollution Control Board; 327 IAC 8-3-5; filed Sep 24, 1987, 3:00 pm: 11 IR 711; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-3-5.5 Duration of the commissioner's review of an application, plans, and specifications**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-15-4-11; IC 13-18-2

Sec. 5.5. (a) The commissioner must approve or deny

a construction permit application:

- (1) for water treatment facilities within a total of one hundred twenty (120) days; or
- (2) for all other proposed construction to a public water system within a total of sixty (60) days.

(b) The total of days, as specified in subsection (a), shall include all calendar days from the commissioner's date-stamped receipt of the application, plans, specifications, and, if required, fee, excluding the calendar days between the following activities:

- (1) A commissioner's written notification to the applicant that the application, plans, and specifications do not fulfill the requirements of section 4 of this rule or are incomplete, inaccurate, or indicate the proposed construction will not produce drinking water of satisfactory quality and normal operating pressure at the peak operating flowrate in accordance with this article.
- (2) The commissioner's date-stamped receipt of the applicant's submittal of additional information subsequent to the commissioner's notification, as described in subdivision (1) to demonstrate that the application, plans, and specifications fulfill the requirements of section 4 of this rule and are complete, are accurate, and indicate the proposed construction will produce drinking water of satisfactory quality and normal operating pressure at the peak operating flowrate in accordance with this article.

(c) The commissioner's failure to comply with this section is subject to IC 13-15-4-11. (*Water Pollution Control Board; 327 IAC 8-3-5.5; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2497; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-3-5.7 Notification of construction**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 5.7. The permittee must notify the commissioner a minimum of ten (10) days, excluding Saturdays, Sundays, and state of Indiana holidays, before exercising a permit issued by the commissioner in accordance with this rule. The notification must include the following information:

- (1) The construction permit number assigned by the commissioner.
- (2) The location of the construction.
- (3) A description of the construction.
- (4) Anticipated duration of the construction.
- (5) The phone number of the permittee or permittee's representative who will be present during the construction.

(*Water Pollution Control Board; 327 IAC 8-3-5.7; filed*

*Mar 31, 1999, 1:50 p.m.: 22 IR 2498; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-3-6 Permit no defense to violations**

**Authority:** IC 13-7-7-5; IC 13-7-14-5  
**Affected:** IC 13-7-7-5; IC 13-7-14-5

Sec. 6. The possession of any permit authorized by this rule (327 IAC 8-3) shall not be construed to authorize the holder of the permit to violate any law of the state of Indiana or rule. (*Water Pollution Control Board; 327 IAC 8-3-6; filed Sep 24, 1987, 3:00 pm: 11 IR 711; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-3-7 Fees**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-16-1-2; IC 13-18-2; IC 36-1-2-23

Sec. 7. (a) The following governmental entities shall be excluded from payment of fee as described in subsection (b):

- (1) County, municipality, or township that is defined as a unit under IC 36-1-2-23.
- (2) A nonprofit organization.
- (3) A conservancy district.
- (4) A school corporation.
- (5) A regional water or sewage district.

(b) The following fee schedule has been established to defer administrative costs, pursuant to IC 13-16-1-2:

TYPE	PROCESSING FEE
New public water supply treatment plant:	
Ground water:	
Up to 500,000 gallons per day	\$875
Greater than 500,000 gallons per day	\$1,750
Surface water:	
Up to 500,000 gallons per day	\$1,250
Greater than 500,000 gallons per day	\$2,500
Public water supply treatment plant expansion:	
Up to fifty percent (50%) design capacity:	
Greater than 500,000 gallons per day	\$1,250
Up to 500,000 gallons per day	\$625
Greater than fifty percent (50%) design capacity:	
Greater than 500,000 gallons per day	\$2,500
Up to 500,000 gallons per day	\$1,250
Other water treatment facilities:	
Wells	\$500
Pump or pump station	\$100
Chemical addition	\$250
Storage tank	\$200
Miscellaneous process modification	\$50 per process
All water distribution system:	

2,501 - 5,000 linear feet	\$150
5,001 - 10,000 linear feet	\$250
Greater than 10,000 linear feet	\$500

(c) A fee shall be remitted with each application made in accordance with the schedule in subsection (b). Checks shall be made payable to the department of environmental management.

(d) The fee shall not be refundable once staff review and processing of the permit application has commenced. (*Water Pollution Control Board; 327 IAC 8-3-7; filed Oct 22, 1991, 5:00 p.m.: 15 IR 225; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2498; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 8-3-8 Incorporation by reference

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 8. Recommended Standards for Waterworks, 1997 Edition, Great Lakes—Upper Mississippi River Board of State Public Health and Environmental Managers, is incorporated by reference into this rule and may be obtained from Health Education Services, P.O. Box 7126, Albany, New York 12224 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-3-8; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2499; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### Rule 3.1. Permitting Authority of Units for Water Main Extension Construction

327 IAC 8-3.1-1 Definitions

327 IAC 8-3.1-2 Permitting authority and responsibilities

#### 327 IAC 8-3.1-1 Definitions

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-12; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2; IC 25-31; IC 36-1-2-23

Sec. 1. In addition to the applicable definitions contained in IC 13-11-2 and 327 IAC 8-3.2-1, the following definitions apply throughout this rule:

- (1) "Professional engineer" means a person registered as a professional engineer by the Indiana state board of registration for professional engineers under IC 25-31.
- (2) "Water main" means any pipe located between all entry points to the distribution system and all customer service connection meters.
- (3) "Unit" means county, municipality, or township as set forth in IC 36-1-2-23.

(*Water Pollution Control Board; 327 IAC 8-3.1-1; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2499; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### 327 IAC 8-3.1-2 Permitting authority and responsibilities

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-12; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 2. (a) The plans for a water main extension are not required to be submitted to any state agency for a permit, permission, or review, unless required by the federal law, if the following are met:

- (1) A person submits plans to a unit concerning the design or construction of a public water main.
- (2) A professional engineer prepared the plans.
- (3) The unit provided a review of the plans by a qualified engineer and subsequently approved the plans.
- (4) All other requirements specified in this rule and all other rules adopted by the water pollution control board are met.

(b) The proposed construction of a water main must be in accordance with the following:

- (1) The Safe Drinking Water Act, 42 U.S.C. 300f-300j-26, as amended\*.
- (2) The Clean Water Act, 33 U.S.C. 1251-1387, as amended\*\*.

(c) The other requirements specified in rules that have been adopted by the water pollution control board and must be adhered to in the permitting of a public water main include the following:

- (1) 327 IAC 8-1: Public Water Supply Direct Additive and Indirect Additive Standards.
- (2) 327 IAC 8-2: Drinking Water Standards.
- (3) 327 IAC 8-3.2: Technical Standards for Water Mains.
- (4) 327 IAC 8-3.3: Public Water System Quantity Requirement Standards.
- (5) 327 IAC 8-7 [*327 IAC 8-7 was repealed filed Jun 7, 1999, 1:50 p.m.: 22 IR 3379.*]: Water Supply and Distribution Systems; Schools and Related Buildings.
- (6) 327 IAC 8-8 [*327 IAC 8-8 was repealed filed Jun 7, 1999, 1:50 p.m.: 22 IR 3379.*]: Water Supply and Distribution Systems; Mobile Home Parks.
- (7) 327 IAC 8-9 [*327 IAC 8-9 was repealed filed Jun 7, 1999, 1:50 p.m.: 22 IR 3379.*]: Water Supply and Distribution Systems; Agricultural Camps.
- (8) 327 IAC 8-10: Cross Connections; Control; Operation.

(d) Units shall notify the commissioner of all public water main construction permits that the unit has issued by submitting to the department, on the effective date of

the permit, a copy of each issued permit. Each submission shall contain the following information for each issued permit:

- (1) Identification number that has been issued by the local unit.
- (2) Effective date of the permit.
- (3) The county where the construction project is to be located.
- (4) The location of the construction project in terms of the following:
  - (A) Nearest public intersection.
  - (B) Quarter section, section, township, and range of the approximate center of the construction project.
  - (C) If the information requested by clause (B) is not available, the latitude and longitude of the approximate center of the construction project to the nearest fifteen (15) seconds.
- (5) The maximum number of proposed service connections to the water main.
- (6) A description and numerical count of the type or types of facilities to be located at each proposed service connection whether:
  - (A) residential;
  - (B) commercial; or
  - (C) industrial.
- (7) A project layout map on an eight and one-half (8.5) inch by eleven (11) inch sheet of paper.
- (e) The commissioner may approve alternatives to the notification procedure described in subsection (d) if requested. The alternative notification procedure must provide equivalent information to that required under subsection (d) to be considered for approval.

\*The Safe Drinking Water Act as amended on August 6, 1996, is incorporated by reference and may be found at 42 U.S.C. 300f to 42 U.S.C. 300j-26 and is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.

\*\*The Clean Water Act in effect on January 1, 1989, and amended on December 16, 1996, is incorporated by reference and may be found at 33 U.S.C. 1251 to 33 U.S.C. 1387 and is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-3.1-2; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2499; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### Rule 3.2. Technical Standards for Water Mains

- 327 IAC 8-3.2-1 Definitions
- 327 IAC 8-3.2-2 Incorporation by reference
- 327 IAC 8-3.2-3 Applicability
- 327 IAC 8-3.2-4 Certification
- 327 IAC 8-3.2-5 Additional information on construction permit applications
- 327 IAC 8-3.2-6 Required easements; other permits
- 327 IAC 8-3.2-7 Additional issuance requirements for construction permits
- 327 IAC 8-3.2-8 Water main materials
- 327 IAC 8-3.2-9 Separation of water mains from potential sources of contamination or damage
- 327 IAC 8-3.2-10 Water mains near surface water bodies
- 327 IAC 8-3.2-11 Flowrate and pressure in the water main
- 327 IAC 8-3.2-12 Sizing of piping and accessories
- 327 IAC 8-3.2-13 Use of dead-end mains
- 327 IAC 8-3.2-14 Placement of isolation valves and air relief valves
- 327 IAC 8-3.2-15 Fire and flushing hydrants
- 327 IAC 8-3.2-16 Chamber drainage
- 327 IAC 8-3.2-17 Installation
- 327 IAC 8-3.2-18 Disinfection
- 327 IAC 8-3.2-19 Cross connection control
- 327 IAC 8-3.2-20 Technical standard alternative demonstration

#### 327 IAC 8-3.2-1 Definitions

**Authority:** IC 13-13-5-1; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 25-31

Sec. 1. In addition to the definitions contained in IC 13-11-2 and 327 IAC 8-3-1, the following definitions apply throughout this rule:

- (1) "100-year flood" means a flood with an occurrence probability of one percent (1%) each year as determined by the Indiana department of natural resources.
- (2) "Accessories" means the constituent elements of a water main, such as pipes, fittings, valves, pumps, and hydrants.
- (3) "ASTM standards" means the recommended standards certified by the American Society for Testing and Materials.
- (4) "AWWA/ANS standards" means the American National Standard approved by the American Water Works Association.
- (5) "Dead-end main" means a portion of a water main that has flow in only one (1) direction and has no planned future extension.
- (6) "Fire flow" means the rate of water flow intended for providing fire protection.
- (7) "Nonpermeable" means to be constructed of ductile iron with solvent resistant gasket materials or welded steel pipes.
- (8) "Normal operating pressure" means the water main

pressure maintained regardless of public service load in the absence of extenuating circumstances.

(9) "Professional engineer" means a person who is registered as a professional engineer by the Indiana state board of registration for professional engineers under IC 25-31.

(10) "Transmission main" means any pipe that:

(A) transports water from a surface water intake to a surface water treatment plant;

(B) transports water from a ground water intake (well) to a water treatment plant (if present);

(C) transports finished water from the treatment plant (if present) to the entry point of the distribution system; or

(D) is installed for the purpose of interconnecting separate public water systems.

(11) "Two (2) year average peak" means the arithmetic mean of the highest five (5) daily pumpages as reported over the previous two (2) year period on the public water system's monthly report of operations on record with the department. If the public water system is less than two (2) years old, the term means the arithmetic mean of the highest five (5) daily pumpages as reported on the public water system's monthly report of operations on record with the department.

(12) "Water main" means any pipe located between all entry points to the distribution system and all customer service connection meters.

*(Water Pollution Control Board; 327 IAC 8-3.2-1; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2500; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.2-2 Incorporation by reference**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 2. (a) The following materials, including titles and the names and addresses of where they may be located for inspection and copying, are incorporated by reference into this rule:

(1) The American Society for Testing and Materials standards listed throughout this rule are available in the 1996 Annual Book of ASTM Standards, Part 34, Plastic Pipe and Building Products, 1996 Edition, American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

(2) The American Water Works Association (AWWA) standards listed throughout this rule are available from

the American Water Works Association, 6666 West Quincy Avenue, Denver, Colorado 80235 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. Notwithstanding language to the contrary in the primarily incorporated documents, the version of all secondarily incorporated documents, which are documents referred to in the primarily incorporated documents, shall be the version in effect on the date of final adoption of this rule.

(b) The technical standards presented in subsection (a) are continuously revised on a twenty-four (24) month cycle. The commissioner shall commence rulemaking efforts to update the documents incorporated by reference in this section. *(Water Pollution Control Board; 327 IAC 8-3.2-2; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2500; errata filed Aug 30, 1999, 12:06 p.m.: 23 IR 25; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.2-3 Applicability**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 3. The technical standards established in this rule are applicable to the design and construction of all new or modified water main extensions constructed in Indiana as specified in 327 IAC 8-3 or 327 IAC 8-3.1 and to the applications, plans, and specifications of those water main extensions. *(Water Pollution Control Board; 327 IAC 8-3.2-3; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2501; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.2-4 Certification**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 4. A professional engineer must certify that the water main designs as shown on the application, plans, and specifications are in compliance with this rule. *(Water Pollution Control Board; 327 IAC 8-3.2-4; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2501; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.2-5 Additional information on construction permit applications**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 5. (a) In addition to the information on the application for construction permit required in 327 IAC 8-3-3,

the following information shall be provided with each application for water main extension covered by this rule:

- (1) Information describing the project as a new water main, the replacement of an existing water main, or the relocation of an existing water main.
  - (2) The piping material types, sizes, classes, pressure ratings, and length.
  - (3) The total length of water main piping.
  - (4) Types of joints.
  - (5) Minimum depth of cover.
  - (6) A statement that indicates the following:
    - (A) If the water main will provide fire protection.
    - (B) How the water main will be pressure and leak tested, and disinfected.
    - (C) If the water main will cross any streams, rivers, or other bodies of water.
    - (D) If the project area has a history of external corrosion problems.
  - (7) Information describing how the water main will be anchored at:
    - (A) each tee, bend, and dead-end; and
    - (B) any hydrants or other accessories.
  - (8) The minimum horizontal and vertical separation distances from the water mains and any sanitary or storm sewers.
  - (9) The spacing between isolation valves and the spacing between hydrants.
  - (10) The current number of service connections served by the public water system.
  - (11) The public water system's current two (2) year average peak.
  - (12) The capacity of the public water system as determined by use of the methods described in 327 IAC 8-3.3-3.
  - (13) The number and type of service connections added by the water main extension and the corresponding fire flow, average and peak daily customer demand, and the peaking factor as determined by use of the methods described in 327 IAC 8-3.3-2.
  - (14) Flow test information indicating the flowrate, static pressure, residual pressure, date and time of flow test, elevation of flow test location, and the lengths, material types, and diameters of the water main from the flow test location to the point of connection to the water main extension.
- (b) In addition to the certifications on the application for construction permit required in 327 IAC 8-3-3, a certification signed and dated by the public water system certifying the public water system has agreed to furnish drinking water to the water main extension and that the public water system has acknowledged the responsibility for examining the application, plans, and specifications to determine that the water main extension meets local

rules, laws, regulations, and ordinances shall be provided with each application for water main extension covered by this rule.

(c) The plans required to be submitted, with an application for construction permit specified in 327 IAC 8-3-3, must bear, on each page of the plans, a dated signature and seal of a professional engineer and must include the following:

- (1) Location of existing and proposed roads and lot boundaries.
- (2) Location of existing and proposed water main pipes indicating the lengths, diameters, and material types of the water main pipes.
- (3) Location of existing and proposed hydrants, isolation valves, road casings, blow-off assemblies, and other accessories.
- (4) Location of proposed reaction blocking.
- (5) Location of existing and proposed sanitary sewers, storm sewers, and culverts.
- (6) Elevation contours at one (1) or two (2) foot intervals.
- (7) Delineation of the 100-year floodway and flood plain.

*(Water Pollution Control Board; 327 IAC 8-3.2-5; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2501; errata filed Aug 30, 1999, 12:06 p.m.: 23 IR 25; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **327 IAC 8-3.2-6 Required easements; other permits**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 6. (a) All easements for water main rights-of-way must prohibit the construction of any permanent structure over the water main and must also provide enough access for maintenance with modern mechanical equipment.

(b) All required permits or exemptions from other government entities must be obtained prior to the commencement of construction of any water mains covered by this rule. *(Water Pollution Control Board; 327 IAC 8-3.2-6; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2502; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **327 IAC 8-3.2-7 Additional issuance requirements for construction permits**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 7. (a) For use in this section, the public water system's capacity, the average daily customer demand, and the peaking factor shall be calculated by the methods

outlined in 327 IAC 8-3.3-2.

(b) In addition to the issuance requirements for a construction permit described in 327 IAC 8-3-4, the commissioner may deny an application for construction of a water main extension unless the applicant submits evidence that the following issuance requirements are met:

- (1) The public water system's current two (2) year average peak is less than ninety percent (90%) of the public water system's capacity.
- (2) The sum of the public water system's current two (2) year average peak and the product of the following is less than ninety percent (90%) of the public water system's capacity:
  - (A) The average daily customer demand resulting from the proposed water main extension.
  - (B) The peaking factor resulting from the proposed water main extension.

*(Water Pollution Control Board; 327 IAC 8-3.2-7; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2502; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.2-8 Water main materials**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 8. (a) All piping, accessories, and other materials in a water main shall conform to 327 IAC 8-1, contain less than eight percent (8%) by mass lead, and conform to the following applicable standards:

- (1) For ductile-iron and fittings, the following standards apply:
  - (A) C104/A21.4-95 American National Standard for Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water.
  - (B) C105/A21.5-93 American National Standard for Polyethylene Encasement for Ductile-Iron Pipe Systems.
  - (C) C110/A21.10-93 American National Standard for Ductile-Iron and Gray-Iron Fittings, 3 In. through 48 In. (75 mm through 1,200 mm), for Water and Other Liquids.
  - (D) C111/A21.50-90 American National Standard for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
  - (E) C115/A21.15-94 American National Standard for Flanged Ductile-Iron Pipe or Gray-Iron Threaded Flanges.
  - (F) C150/A21.50-91 American National Standard for the Thickness Design of Ductile-Iron Pipe.
  - (G) C151/A21.51-91 American National Standard for Ductile-Iron Pipe, Centrifugally Cast, for Water

or Other Liquids.

(H) C153/A-21.53-94 American National Standard for Ductile-Iron Compact Fittings, 3 In. through 24 In. (76 mm through 610 mm) and 54 In. through 64 In. (1,400 mm through 1,600 mm), for Water Service.

(2) For steel pipe, the following standards apply:

- (A) C200-91 AWWA Standard for Steel Water Pipe, 6 In. (150 mm) and Larger.
- (B) C203-91 AWWA Standard for Coal-Tar Protective Coatings and Linings for Steel Water Pipelines-Enamel and Tape-Hot-Applied.
- (C) C205-89 AWWA Standard for Cement-Mortar Protective Lining and Coating for Steel Water Pipe-4 In. and Larger-Shop Applied.
- (D) C206-91 AWWA Standard for Field Welding of Steel Water Pipe.
- (E) C207-94 AWWA Standard for Steel Pipe Flanges for Waterworks Service-Sizes 4 In. through 144 In. (100 mm through 3,600 mm).
- (F) C208-83(R89) AWWA Standard for Dimensions for Fabricated Steel Water Pipe Fittings.
- (G) C209-90 AWWA Standard for Cold-Applied Tape Coatings for the Exterior of Special Sections, Connections, and Fittings for Steel Water Pipelines.
- (H) C210-92 AWWA Standard for Liquid-Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipelines.
- (I) C213-91 AWWA Standard for Fusion-Bonded Epoxy Coating for the Interior and Exterior of Steel Water Pipelines.
- (J) C214-89 AWWA Standard for Tape Coating Systems for the Exterior of Steel Water Pipelines (includes addendum C214a-91).
- (K) C215-94 AWWA Standard for Extruded Polyolefin Coatings for the Exterior of Steel Water Pipelines.
- (L) C216-94 AWWA Standard for Heat-Shrinkable Cross-Linked Polyolefin Coatings for the Exterior of Special Sections, Connections, and Fittings for Steel Water Pipelines.
- (M) C217-90 AWWA Standard for Cold-Applied Petrolatum Tape and Petroleum Wax Tape Coatings for the Exterior of Special Sections, Connections, and Fittings for Buried Steel Water Pipelines.
- (N) C218-91 AWWA Standard for Coating the Exterior of Aboveground Steel Water Pipelines and Fittings.
- (O) C219-91 AWWA Standard for Bolted, Sleeve-Type Couplings for Plain-End Pipe.
- (P) C220-92 AWWA Standard for Stainless-Steel Pipe, 4 In. (100 mm) and Larger.

(3) For concrete pipe, the following standards apply:

- (A) C300-89 AWWA Standard for Reinforced Concrete Pressure Pipe, Steel-Cylinder Type, for Water and Other Liquids (includes addendum C300a-93).
- (B) C301-92 AWWA Standard for Prestressed Concrete Pressure Pipe, Steel-Cylinder Type, for Water and Other Liquids.
- (C) C302-95 AWWA Standard for Reinforced Concrete Pressure Pipe, Noncylinder Type.
- (D) C303-95 AWWA Standard for Concrete Pressure Pipe, Bar-Wrapped, Steel-Cylinder Type.
- (E) C304-92 AWWA Standard for Design of Prestressed Concrete Cylinder Pipe.
- (4) For asbestos-cement pipe, the following standards apply:
- (A) C400-93 AWWA Standard for Asbestos-Cement Pressure Pipe, 4 In. through 16 In. (100 mm through 400 mm), for Water Distribution Systems.
- (B) C401-93 AWWA Standard for the Selection of Asbestos-Cement Pressure Pipe, 4 In. through 16 In. (100 mm through 400 mm), for Water Distribution Systems.
- (C) C402-89 AWWA Standard for Asbestos-Cement Transmission Pipe, 18 In. through 42 In. (450 mm through 1,050 mm), for Potable Water and Other Liquids.
- (D) C403-89 AWWA Standard for the Selection of Asbestos-Cement Transmission and Feeder Main Pipe, Sizes 18 In. through 42 In. (450 mm through 1,050 mm).
- (5) For valves and hydrants, the following standards apply:
- (A) C500-93 AWWA Standard for Metal-Seated Gate Valves for Water Supply Service (includes addendum C500a-95).
- (B) C501-92 AWWA Standard for Cast-Iron Sluice Gates.
- (C) C502-94 AWWA Standard for Dry-Barrel Fire Hydrants (includes addendum C502a-95).
- (D) C503-88 AWWA Standard for Wet-Barrel Fire Hydrants.
- (E) C504-94 AWWA Standard for Rubber-Seated Butterfly Valves.
- (F) C507-91 AWWA Standard for Ball Valves 6 In. through 48 In. (150 mm through 1,200 mm).
- (G) C508-93 AWWA Standard for Swing-Check Valves for Waterworks Service, 2 In. (50 mm) through 24 In. (600 mm) NPS (includes addendum C508a-93).
- (H) C509-94 AWWA Standard for Resilient-Seated Gate Valves for Water Supply Service (includes addendum C509a-95).
- (I) C510-92 AWWA Standard for Double Check Valve Backflow-Prevention Assembly.
- (J) C511-92 AWWA Standard for Reduced-Pressure Principle Backflow-Prevention Assembly.
- (K) C512-92 AWWA Standard for Air-Release, Air/Vacuum, and Combination Air Valves for Waterworks Service.
- (L) C540-93 AWWA Standard for Power-Actuating Devices for Valves and Sluice Gates.
- (M) C550-90 AWWA Standard for Protective Epoxy Interior Coatings for Valves and Hydrants.
- (6) For plastic pipe, the following standards apply:
- (A) C900-89 AWWA Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4 In. through 12 In., for Water Distribution (includes addendum C900a-92).
- (B) C901-88 AWWA Standard for Polyethylene (PE) Pressure Pipe and Tubing, ½ In. through 3 In., for Water Service.
- (C) C905-88 AWWA Standard for Polyvinyl Chloride (PVC) Water Transmission Pipe, Nominal Diameters 14 In. through 36 In.
- (D) C906-90 AWWA Standard for Polyethylene (PE) Pressure Pipe and Fittings, 4 In. through 63 In., for Water Distribution.
- (E) C907-91 AWWA Standard for Polyvinyl Chloride (PVC) Pressure Fittings for Water, 4 In. through 8 In. (100 mm through 200 mm).
- (F) American Society for Testing and Materials (ASTM) D2239-96A Specifications for PE Plastic Pipe (SDR-PR).
- (G) ASTM D2241-96A Specifications for PVC Plastic Pipe (SDR-PR).
- (H) ASTM D3350-96 Specifications for PE Plastic Pipe and Fitting Materials.
- (b) All water mains installed in areas of ground water contamination, consisting of solvent, petroleum, or other volatile or semivolatile organic compounds, shall be constructed with nonpermeable piping and accessories.
- (c) Piping and accessories previously used exclusively for water mains may be reused if:
- (1) the piping or accessories comply with the requirements of subsection (a); and
  - (2) the piping or accessories have been restored to their original condition.
- (d) All connections between pipes shall have mechanical joints or slip-on joints with rubber gaskets with the exception of:
- (1) steel pipe that may be welded;
  - (2) polyethylene (PE) pipes that may be thermojoined by a person who is a manufacturer's certified thermojoiner; or
  - (3) piping described in section 10(d) of this rule.
- (e) Water mains constructed with PVC and installed under existing or proposed roadways and railroads shall

be cased in conformance with AWWA Standard C900-89, Appendix A or AWWA Standard C905-88, Appendix A.

(f) Water mains that are cased shall conform to AWWA Standard C600-93, Section 6.

(g) Water mains constructed with nonmetallic materials must be equipped with tracing wire or other metallic identification equipment. (*Water Pollution Control Board; 327 IAC 8-3.2-8; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2502; errata filed Aug 30, 1999, 12:06 p.m.: 23 IR 25; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-3.2-9 Separation of water mains from potential sources of contamination or damage**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 9. (a) Water mains shall not be located within ten (10) feet measured horizontally from the outside edge of the water main to the outside edge of any existing and proposed sanitary sewers or storm sewers (sewers), unless the water main and the sewers comply with the following:

(1) The water main and sewers must cross with the water main and sewers separated by a minimum of eighteen (18) inches measured vertically from the outside edge of the water main to the outside edge of the sewers.

(2) The crossing specified in subdivision (1) must be at a minimum angle of forty-five (45) degrees measured from the center lines of the water main and sewers.

(3) The conditions specified in subdivisions (1) and (2) must be maintained for a minimum distance of ten (10) feet from either side of the water main as measured from the outside edge of the water main to the outside edge of the sewers. All sewer pipe joints within this ten (10) feet distance must be compression type joints.

(4) All sewer pipe must be marked to identify it as a sewer pipe wherever a point of crossing with a water main pipe occurs.

(b) A shorter separation distance than that specified in subsection (a) is allowed if the following is conducted within the separation distances specified in subsection (a):

(1) The sewers are joined with compression type joints and meet all water main requirements as described in sections 8 and 17(a) of this rule.

(2) The water main and sewers are not in contact.

(c) Water mains shall be separated from existing and proposed aboveground or underground storage tanks and

their distribution devices containing or potentially containing hazardous materials, petroleum products, or waste materials by a distance of twenty-five (25) feet horizontally measured from the outside edge of the water main to the outside edge of the tank or distribution device and shall not cross such tanks or distribution devices.

(d) Water mains shall be separated from the following existing and proposed potential sources of contamination or damage (sources) by ten (10) feet measured horizontally from the outside edge of the water main to the outside edge of the source and shall not cross such potential sources:

(1) Aboveground and underground storage tanks containing materials other than those under subsection (b) or potable water.

(2) Sewage or septic treatment equipment and septic tank absorption field trenches, lift stations, and grave sites.

(e) No water main shall be within eight (8) feet of a sanitary sewer manhole, a storm sewer manhole, or a drainage grate support structure as measured from the outside edge of the water main to the outside edge of the sanitary sewer manhole, storm sewer manhole, or drainage grate support structure.

(f) Water mains shall be separated from existing or proposed landfills by fifty (50) feet measured horizontally from the edge of the water main to the outside edge of the waste boundary of an existing or proposed landfill. In addition, water mains within three hundred (300) linear feet of the outside edge of a waste boundary of an existing or proposed landfill shall be constructed of nonpermeable materials. Water mains shall not cross or pass through the waste boundary of an existing or proposed landfill. (*Water Pollution Control Board; 327 IAC 8-3.2-9; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2504; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-3.2-10 Water mains near surface water bodies**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 10. (a) Water mains shall be separated from existing or proposed water bodies by ten (10) feet horizontally measured from the outside edge of the water main to the edge of the typical water line.

(b) Water mains located above surface water bodies shall be:

- (1) adequately supported and anchored;
- (2) protected from damage and freezing; and
- (3) accessible for repair or replacement.

(c) Water mains located under surface water bodies

less than fifteen (15) feet in width shall be covered with a minimum of two (2) feet of material.

(d) Water mains going under surface water bodies greater than fifteen (15) feet in width at the crossing point shall:

- (1) be constructed with watertight, flexible joints;
- (2) have valves placed at both ends of the surface water body that are accessible from the ground surface and not subject to flooding; and
- (3) have the upstream valve installed in a manhole structure or meter pit, with permanent taps made on each side of the valve in the manhole structure or meter pit to allow insertion of a leakage meter and to allow for sampling purposes.

*(Water Pollution Control Board; 327 IAC 8-3.2-10; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2505; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.2-11 Flowrate and pressure in the water main**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 11. (a) The flowrate and the pressure requirements of subsection (b) shall be provided at all service connections in a water main extension applicable to this rule.

(b) At a flowrate equal to the peak daily customer demand as determined in 327 IAC 8-3.3-2, the normal operating pressure in the water main shall not be less than twenty (20) psi under all conditions of flow at the ground level at all points in the water main when demonstrated in conformance with subsection (c).

(c) The flowrate and the pressure requirements of subsection (b) shall be demonstrated to the commissioner with either:

- (1) a computer-based model; or
- (2) other hydraulic calculations.

*(Water Pollution Control Board; 327 IAC 8-3.2-11; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2505; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.2-12 Sizing of piping and accessories**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 12. (a) If the water main is to include fire flow with fire hydrants, the minimum size of piping and accessories supplying water to the water main and fire hydrants shall be six (6) inches in diameter. The minimum size of hydrant leads shall be six (6) inches in diameter.

(b) No water main shall be less than three (3) inches in

diameter unless:

- (1) the material requirements of section 8 of this rule are met;
- (2) the water main is a dead-end main less than three hundred fifty (350) feet in length; and
- (3) the flowrate and pressure requirements of section 11 of this rule are met.

(c) If a public water system is not providing fire flow, then fire hydrants shall not be installed on water mains. *(Water Pollution Control Board; 327 IAC 8-3.2-12; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2505; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.2-13 Use of dead-end mains**

**Authority:** IC 13-13-5-1; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2

Sec. 13. (a) All dead-end mains shall end with a valve and one (1) additional length of pipe beyond the valve that is properly plugged and capped.

(b) All dead-end main end points shall have flushing devices attached to the valve specified in subsection (a) that is sized to provide at least two and one-half (2.5) feet per second and a maximum of five (5) feet per second in the dead-end main during flushing. No flushing device may be connected directly to a sewer. A flushing device shall be selected in accordance with the following:

- (1) The flushing device shall be a fire hydrant, flushing hydrant, or blow-off assembly if the diameter of the water main pipe is at least six (6) inches in diameter.
- (2) The flushing device shall be a flushing hydrant or blow-off assembly if the diameter of the water main pipe is less than six (6) inches in diameter.

*(Water Pollution Control Board; 327 IAC 8-3.2-13; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2505; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.2-14 Placement of isolation valves and air relief valves**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 14. (a) Isolation valves shall be provided on water mains in accordance with the following:

- (1) Isolation valves shall be located at points necessary so that the maximum distance along the water main not served by an isolation valve shall be less than six hundred (600) linear feet.
- (2) Where water suppliers serve widely scattered customers and where future development is not expected, the isolation valve spacing shall not exceed two thousand five hundred (2,500) linear feet.

(b) Air relief valves or other air relief devices shall be installed at any intermediate apex points in the water main where air may accumulate in the water main. All air relief valves must be equipped with an exhaust pipe extending to a downward facing elbow with a corrosion-resistant, twenty-four (24) mesh screened opening at an elevation of eighteen (18) inches above ground level. Automatic or manually operated air relief valves shall be selected in accordance with the following:

(1) Automatic air relief valves shall not be used in areas within the one hundred (100) year flood plain, in a pit, chamber or manhole where flooding may occur unless the automatic air relief valve is equipped with a downward facing exhaust pipe with a corrosion resistant, twenty-four (24) mesh screened opening at an elevation of eighteen (18) inches above the ground surface and above the one hundred (100) year flood elevation.

(2) Manually operated air relief valves shall be used in areas within the one hundred (100) year flood plain, in a pit, chamber, or manhole where flooding may occur. (*Water Pollution Control Board; 327 IAC 8-3.2-14; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2505; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.2-15 Fire and flushing hydrants**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 15. (a) All fire or flushing hydrant leads shall have auxiliary valves.

(b) Fire hydrant and flushing hydrant drains shall be separated from potential sources of contamination by ten (10) feet horizontally measured from the outside edge of the hydrant to the outside edge of the potential sources of contamination.

(c) Fire hydrants or flushing hydrants shall be located at points necessary so that the maximum distance along a water main not served by a fire hydrant or flushing hydrant shall be less than six hundred (600) linear feet.

(d) Fire hydrants shall be connected to a water main at least six (6) inches in diameter that has been designed to carry fire flow and shall have a bottom valve size at least five (5) inches in diameter, one (1) four and one-half (4.5) inch pumper nozzle, and two (2) two and one-half (2.5) inch nozzles.

(e) Hydrants, when used for flushing the water main, shall be able to provide at least two and one-half (2.5) cubic feet per second of water velocity at the point immediately preceding the exit point. (*Water Pollution Control Board; 327 IAC 8-3.2-15; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2506; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.2-16 Chamber drainage**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 16. The chambers, pits, or manholes containing valves, air relief valves, blow-offs, cross-connection prevention devices, meters, or other devices connected directly or indirectly to the water main shall not be connected directly to any storm drain or sanitary sewer. All chambers, pits, or manholes shall be drained to the ground surface that is not prone to flooding by surface water or to absorption pits underground. (*Water Pollution Control Board; 327 IAC 8-3.2-16; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2506; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.2-17 Installation**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 17. (a) All water mains and their accessories shall be installed and pressure and leak tested in accordance with the applicable provisions of AWWA Standard C600-93, C602-89, C603-90, C605-94, or C606-87. If an AWWA Standard is not available for the particular installation, the manufacturer's recommended installation procedure shall be followed.

(b) Continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe. All stones unable to pass through a U.S. Standard Sieve opening of two (2) inches that are found in the trench within six (6) inches of the outside edge of the pipe shall be removed.

(c) All necessary reaction blocking, tie rods, or joints designed to prevent movement for pipes and fittings (regardless of material type) at tees, bends, plugs, and hydrants shall be installed to prevent movement in conformance with AWWA Standard C600-93, Section 3.8.

(d) Water mains shall be covered with earthen cover in accordance with the following:

#### **Depth of Cover Requirements for Water Mains**

County	Cover <sup>[1]</sup> (in)
Adams	60
Allen	60
Bartholomew	48
Benton	60

Blackford	60	Kosciusko	60
Boone	54	LaGrange	60
Brown	48	Lake	60
Carroll	60	LaPorte	60
Cass	60	Lawrence	48
Clark	36	Madison	60
Clay	54	Marion	54
Clinton	54	Marshall	60
Crawford	36	Martin	48
Daviess	48	Miami	60
Dearborn	48	Monroe	48
Decatur	48	Montgomery	60
Dekalb	60	Morgan	48
Delaware	60	Newton	60
Dubois	42	Noble	60
Elkhart	60	Ohio	42
Fayette	54	Orange	42
Floyd	36	Owen	54
Fountain	60	Parke	60
Franklin	48	Perry	36
Fulton	60	Pike	42
Gibson	42	Porter	60
Grant	60	Posey	42
Greene	54	Pulaski	60
Hamilton	54	Putnam	54
Hancock	54	Randolph	54
Harrison	36	Ripley	48
Hendricks	54	Rush	54
Henry	54	St. Joseph	60
Howard	60	Scott	36
Huntington	60	Shelby	54
Jackson	48	Spencer	36
Jasper	60	Starke	60
Jay	60	Steuben	60
Jefferson	42	Sullivan	54
Jennings	48	Switzerland	42
Johnson	54	Tippecanoe	60
Knox	48	Tipton	60

Union	48
Vanderburgh	36
Vermillion	60
Vigo	60
Wabash	60
Warren	60
Warrick	36
Washington	36
Wayne	54
Wells	60
White	60
Whitley	60

<sup>[1]</sup>The cover dimension is measured from the top of pipe to the proposed finish grade. (*Water Pollution Control Board; 327 IAC 8-3.2-17; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2506; errata filed Aug 30, 1999, 12:06 p.m.: 23 IR 25; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 8-3.2-18 Disinfection

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 18. (a) All new, cleaned, or repaired water mains shall be disinfected in accordance with AWWA Standard C651-92.

(b) All chlorinated water shall be disposed of by either:  
 (1) disposal to a sanitary sewer with the approval of the local sewer authority; or  
 (2) disposal to a location other than a sanitary sewer after obtaining a discharge permit from the commissioner.

(c) All laboratory reports documenting the conformance with AWWA Standard C651-92, Section 7, shall be submitted to the commissioner before the water main is brought into service. The laboratory used shall be approved by the commissioner. The laboratory report presenting the sample results shall be sent to the commissioner within ten (10) working days of receipt from the laboratory. The laboratory results shall have the commissioner's assigned permit number marked on the upper right hand corner of the top page. (*Water Pollution Control Board; 327 IAC 8-3.2-18; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2508; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 8-3.2-19 Cross connection control

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 19. All service connections to facilities designated as a cross connection hazard by 327 IAC 8-10-4(c) shall be equipped with either a reduced pressure principle or an air gap backflow preventer according to 327 IAC 8-10-7. (*Water Pollution Control Board; 327 IAC 8-3.2-19; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2508; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 8-3.2-20 Technical standard alternative demonstration

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 20. (a) An alternative to technical standards required by this rule may be approved by the commissioner for either a single application or for public water system-wide applications of the technical standard if the applicant demonstrates in a written submission that the alternative will achieve the following:

(1) Meet the issuance requirements of 327 IAC 8-3-4.  
 (2) Provide drinking water of at least the same satisfactory quality and normal operating pressure at the peak operating flowrate as the technical standards of this rule would provide.

(b) An approved alternative to a technical standard shall be in effect for one (1) year from the commissioner's approval of that alternative standard.

(c) An alternative to a technical standard shall only apply to the application or the public water system for which the alternative is requested. (*Water Pollution Control Board; 327 IAC 8-3.2-20; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2508; errata filed Aug 30, 1999, 12:06 p.m.: 23 IR 25; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### Rule 3.3. Public Water System Quantity Requirement Standards

327 IAC 8-3.3-1	Definitions
327 IAC 8-3.3-2	Calculation of public water system quantity requirement standards for average and peak demand conditions
327 IAC 8-3.3-3	Determination of public water system capacity
327 IAC 8-3.3-4	Additional public water system quantity requirement standards for school buildings and related facilities
327 IAC 8-3.3-5	Additional public water system quantity requirement standards for mobile home parks
327 IAC 8-3.3-6	Additional public water system quantity requirement standards for agricultural labor camps

### 327 IAC 8-3.3-1 Definitions

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2; IC 16-41-26-1; IC 16-41-26-8

Sec. 1. In addition to definitions contained in IC 13-11-2, 327 IAC 8-1-1, and 327 IAC 8-3-1, the following definitions apply throughout this rule:

- (1) "Agricultural labor camp" means an area as described in IC 16-41-26-1.
- (2) "Primary pumps" means any pumps used to deliver drinking water to the distribution system. Primary pumps are the high service pumps in a staged treatment system. Primary pumps are the well pumps in a public water system that utilizes no treatment.
- (3) "Rated capacity" means the optimum flowrate output for the intended use from a device as determined by the manufacturer of the device.

*(Water Pollution Control Board; 327 IAC 8-3.3-1; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2508; errata filed Aug 30, 1999, 12:06 p.m.: 23 IR 25; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.3-2 Calculation of public water system quantity requirement standards for average and peak demand conditions**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 2. (a) The calculated average and peak flowrate values required for a water main extension to a public water system shall be equal to the average and peak daily consumer demands of the proposed additional service connections calculated as follows:

- (1) The public water supply quantity requirement for the average daily consumer demand for residential service connections shall be determined by using a general average daily demand value. The following method shall be used to calculate average and peak supply quantity requirements:

$$\text{ADCD} = (\text{General Avg}) \times \text{PRSC}$$

$$\text{PDCD} = (\text{ADCD} \times \text{PF}) + \text{FF}$$

Where: AD CD = Average daily consumer demand in gallons per residential service connection per day.

PDCD = Peak daily consumer demand in gallons per residential service connection per day.

General Avg = General average daily consumer demand value of five hundred (500) gallons per residential service connection per day.

PRSC = Proposed number of residential service connections.

PF = Peak daily consumer demand factor of two and one-half (2.5).

FF = Fire flow demand value equal to the fire protection flowrate provided by the public water system or zero (0) if the public water system is not providing fire protection.

- (2) The public water supply quantity requirement for the average and peak daily consumer demand for residential service connections may be determined from the monthly reports of operations (MROs) as follows:

(A) The following method may be used to calculate average and peak supply quantity requirements for a public water system that has been in operation for at least ten (10) years and has an accurate record of MROs for that time period:

$$\text{ADCD} = (\text{Max Average}) \times \text{PRSC}$$

$$\text{PDCD} = (\text{ADCD} \times \text{PF}) + \text{FF}$$

Where: AD CD = Average daily consumer demand in gallons per residential service connection per day.

PDCD = Peak daily consumer demand in gallons per residential service connection per day.

Max Average = Maximum average daily consumer demand in gallons per service connection as calculated by:

$$\text{Max Average} = (\text{ADCD}_{10}) \div (\text{SC}_{10})$$

Where: AD CD<sub>10</sub> = The highest average daily demand as reported on the MROs over the previous ten (10) year period.

SC<sub>10</sub> = The number of service connections at AD CD<sub>10</sub>.

PRSC = Proposed number of residential service connections.

PF = Peak daily demand factor as calculated by the following:

$$\text{PF} = \text{MDD}_{10} \div 10\text{YADD}$$

Where: MDD<sub>10</sub> = The maximum single day demand as reported on the MROs over the previous ten (10) year period.

10YADD = The ten (10) year average daily demand as calculated from the previous ten (10) year period.

FF = Fire flow demand value equal to the fire protection flowrate provided by the public water system or zero (0) if the public water system is not providing fire protection.

(B) If a public water service has not been in operation for at least ten (10) years, then all available MROs shall be used to determine the highest average daily demand (ADCD10), the number of service connections at ADCD10 (SC10), the maximum single day demand (MDD10), and the ten (10) year average daily demand (10YADD).

(3) The public water supply quantity requirement for the average and peak daily consumer demand for service connections described by Table 2-1 in subsection (b). The following method may be used to calculate the average and peak public water supply quantity requirements:

$$ADCD = DCF \times PSC$$

$$PDCD = (ADCD \times PF) + FF$$

Where: ADCD = Average daily consumer demand in gallons per service connection per day.

PDCD = Peak daily consumer demand in gallons per service connection per day.

DCF = Demand calculation factors as contained in Table 2-1 in subsection (b).

PSC = Proposed number of service connections.

PF = Peak daily consumer demand factor of two and one-half (2.5).

FF = Fire flow demand value equal to the fire protection flowrate provided by the public water system or zero (0) if the public water system is not providing fire protection.

(4) If the average and peak daily consumer demand cannot be determined or calculated using the methods described in subdivision (1), (2), or (3), the determination of the average and peak daily consumer demand must be approved by the commissioner. The source and any calculations or assumptions must be approved by the commissioner.

(b) The following demand calculation factors shall be used in the calculations under subsection(a)(3):

Table 2-1  
Demand Calculation Factors (DCF)

Service Connection Description	DCF (gallons per day)
Airport	3 per passenger plus 20 per employee
Assembly Hall	3 per seat
Bar (without Food Service)	10 per seat
Beauty Salon	35 per customer
Bowling Alley (with Bar and/or Food)	125 per lane
Bowling Alley (without Food Service)	75 per lane

Bus Station	3 per passenger
Campground Organizational with Flush Toilets	40 per camper
Campground Organizational without Flush Toilets	20 per camper
Campground Recreational with Individual Sewer Connection	100 per campsite
Campground Recreational without Individual Sewer Connection	50 per campsite
Church with Kitchen	5 per sanctuary seat
Church without Kitchen	3 per sanctuary seat
Correctional Facilities	120 per inmate
Day Care Center	20 per person
Dentist	750 per chair plus 75 per employee
Factory with Showers	35 per employee
Factory without Showers	20 per employee
Food Service Operations Cocktail Lounge	35 per seat
Food Service Operations Restaurant, not Open 24 Hours	35 per seat
Food Service Operations Restaurant, Open 24 Hours	50 per seat
Food Service Operations Restaurant, open 24 hours and Located Along an Interstate	70 per seat
Food Service Operations Tavern	35 per seat
Food Service Operations Curb Service (Drive-In)	50 per car space
Hospital, Medical Facility	200 per bed
Hotel	100 per room
Kennel	20 per animal enclosure
Mental Health Facility	100 per patient
Motel	100 per room
Nursing Home	100 per bed
Office Building	20 per employee
Outpatient Surgical Center	50 per patient
Picnic Area	5 per visitor
School Elementary	15 per pupil
School Secondary	25 per pupil
School with Dormitory	100 per bed
Service Station (Gas Station)	400 per restroom
Shopping Center	0.1 per square foot of floor space, plus 20 per employee
Swimming Pool Bathhouse	10 per swimmer
Theater Drive-In	5 per car space
Theater Inside Building	5 per seat

(Water Pollution Control Board; 327 IAC 8-3.3-2; filed Mar 31, 1999, 1:50 p.m.; 22 IR 2508; readopted filed Jan 10, 2001, 3:23 p.m.; 24 IR 1518)

### 327 IAC 8-3.3-3 Determination of public water system capacity

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 3. (a) A public water system's daily capacity shall be determined by adding together the production capacity determined under subsection (b) and the purchased capacity, if any, determined under subsection (c).

(b) The production capacity is the lesser of the following amounts:

(1) The "design daily production" in gallons per day as reported on the most recent Public Water System Sanitary Survey conducted by the commissioner pursuant to 327 IAC 8-2-8.2.

(2) The sum of the rated daily capacity of all primary pumps utilized by a public water supplier less the primary pump with the largest rated capacity. For example, a public water system with a five hundred (500) gallons per minute pump and a four hundred (400) gallons per minute pump would have a system capacity of four hundred (400) gallons per minute.

(c) A public water system that supplements its own capacity by purchasing water may add the amount of the purchase capacity to the public water system daily capacity. The purchase capacity is one (1) of the following amounts:

(1) The contractual amount, expressed as a daily quantity, of water purchased from a separate public water system.

(2) The commissioner's approved amount, expressed as a daily quantity, of water purchased from a separate public water system. The commissioner's approval of the purchase capacity is required when:

(A) no purchase water contract exists; or

(B) no finite daily quantity of water is specified in the purchase water contract.

*(Water Pollution Control Board; 327 IAC 8-3.3-3; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2510; errata filed Aug 30, 1999, 12:06 p.m.: 23 IR 25; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### 327 IAC 8-3.3-4 Additional public water system quantity requirement standards for school buildings and related facilities

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 4. (a) All school buildings and related facilities shall be supplied with safe, potable water from an approved source and an approved distribution system.

(b) The drinking water for school buildings and related

facilities shall be supplied at the flowrate and pressure required by 327 IAC 8-3.2-11 and at the quality required by 327 IAC 8-2 and in accordance with the following:

(1) The water supply and distribution system shall be sized and constructed to deliver water at twenty (20) pounds per square inch minimum pressure to all fixtures and appurtenances during periods of peak water demand.

(2) Notwithstanding subdivision (1), school buildings may be served by hand-operated well pumps where religious custom precludes using electrically or gasoline driven well pumps providing the well and well pump are located and constructed in compliance with this rule and applicable sections of 410 IAC 6-5.1.

(c) A connection to a public water supply shall be made with its potable water used exclusively wherever such supply is available or becomes available within a reasonable distance from the school facility, with the exception that nonpotable sources of water are available and may be utilized for the following nonpotable activities:

(1) Lawn sprinkling.

(2) Bus washing.

(3) Firefighting.

(4) Other nonpotable uses provided by a nonpotable distribution system having no connection to the potable system.

(d) Where a community public water supply is not available, a properly located and constructed private water supply shall be provided. Beginning on the effective date of this rule, all new and modified public water systems exclusively serving schools and related facilities shall be equipped with a backup system capable of providing drinking water in accordance with subsection (b).

(e) Well pumps, pressure tanks, storage tanks, treatment facilities, and piping shall be sized to meet peak daily consumer demands. The minimum usable capacity of the pressure tank, in gallons, shall be three (3) times the installed well pump capacity in gallons per minute. For example, a pump of thirty (30) gallons per minute capacity would require a pressure tank of ninety (90) gallons usable capacity. If the well or pump cannot meet peak demands, sufficient additional usable storage capacity shall be provided to meet peak demands.

(f) Each school building or addition to a school building may have a potable water supply where necessary to provide adequate service. However, where two (2) or more school potable water supply systems are located on the same site, the water supply systems shall be sufficiently interconnected to allow for the maximum possible utilization of each should a system fail.

(g) Unless lower water system demands can be documented to the satisfaction of the commissioner, all school buildings and additions to school buildings constructed after February 17, 1985, shall have a water supply system

capable of furnishing a minimum of:

- (1) fifteen (15) gallons per day per student up through the elementary grades;
- (2) twenty-five (25) gallons per day per student in grades greater than elementary; and
- (3) one hundred (100) gallons per day per dormitory bed based on maximum building occupancy.

*(Water Pollution Control Board; 327 IAC 8-3.3-4; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2511; errata filed Aug 30, 1999, 12:06 p.m.: 23 IR 25; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.3-5 Additional public water system quantity requirement standards for mobile home parks**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 5. (a) An accessible, adequate, safe, and potable supply of water shall be provided in all mobile home parks and additions.

(b) Where a public water supply is available, a connection shall be made thereto and its water used exclusively.

(c) A water-tight casing pipe extending at least twelve (12) inches above the ground shall surround any part of a suction pipe, drop pipe, or delivery pipe not normally under constant pressure and located within twenty-five (25) feet of the ground surface.

(d) Each mobile home lot shall be provided with a cold water tap extending at least four (4) inches above the ground surface. The outlet shall be protected from freezing by the use of a heater tape, insulation, or draining when not in use. In no case shall a stop-and-waste valve or other device that would allow aspiration or backflow or contaminated water into the potable water system be used.

(e) The individual water and sewer connections on each mobile home lot shall be separated not less than five (5) feet horizontally.

(f) The water supply system shall be capable of furnishing a minimum of two hundred (200) gallons per day per mobile home lot in all mobile home parks constructed after June 14, 1974, as well as in all additions to mobile home parks constructed after the date. *(Water Pollution Control Board; 327 IAC 8-3.3-5; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2511; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.3-6 Additional public water system quantity requirement standards for agricultural labor camps**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1; IC 16-41-26-8

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 6. (a) An adequate and convenient supply of water that meets the water quality standards of the department pursuant to 327 IAC 2 shall be available at all times in each agricultural labor camp for culinary, drinking, bathing, and laundry purposes. Where a public water supply is available, it shall be used to provide water for the agricultural labor camp.

(b) A cold water tap shall be available within one hundred (100) feet of each individual living unit when water is not provided in the unit. Adequate drainage facilities shall be provided for overflow and spillage. *(Water Pollution Control Board; 327 IAC 8-3.3-6; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2512; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 3.4. Public Water System Wells**

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- 327 IAC 8-3.4-26 Conversion of a nonproduction well to a production well
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#### **327 IAC 8-3.4-1 Definitions**

**Authority:** IC 13-13-5-1; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 16-41-26-1; IC 25-17-6; IC 25-31

Sec. 1. In addition to the definitions contained in IC

13-11-2, the following definitions apply throughout this rule:

- (1) "Agricultural labor camp" means an area as described in IC 16-41-26-1.
- (2) "Annulus" means the space between the exterior of a well casing and the inside diameter of the borehole.
- (3) "Bentonite" means clay material composed predominantly of sodium montmorillonite which meets American Petroleum Institute specifications standard 13-A, Drilling Fluid Materials (1985)\*.
- (4) "Bentonite slurry" means a mixture, made according to manufacturer specifications, of water and commercial grouting or plugging bentonite which contains high concentrations of solids. The term does not include sodium bentonite products which contain low solid concentration or which are designed for drilling fluid purposes.
- (5) "Certified professional geologist" means a person who is certified as a professional geologist by the board of certification for professional geologists under IC 25-17.6.
- (6) "Community public water supply system" or "CPWSS" or "community" means a public water system that serves at least fifteen (15) service connections used by year-round residents or regularly serves at least twenty-five (25) year-round residents.
- (7) "Course grade crushed bentonite" means natural bentonite crushed to an average size range of three-eighths (c) to three-fourths (¾) inches.
- (8) "Direct additives" means chemical additives that are used in public water systems for the treatment of raw water. Direct additives are also used to protect drinking water during storage and distribution. Examples of direct additives include agents used for the following:
  - (A) Coagulation and flocculation.
  - (B) Corrosion and scale control.
  - (C) Softening.
  - (D) Sequestering.
  - (E) Precipitation.
  - (F) pH adjustment.
  - (G) Disinfection.
  - (H) Oxidation.
- (9) "Distribution system" means one (1) of the following:
  - (A) In a community public water supply system, the term means the network of water piping, pumping stations, storage equipment, valves, fire hydrants, pressure regulators, and equipment required to transport water to the customer's service connection from one (1) of the following points:
    - (i) A treatment plant.
    - (ii) A source of raw water supply if no treatment is

provided.

- (B) In a noncommunity public water supply system, the term means the network of water piping, pumping stations, valves, fire hydrants, pressure regulators, and equipment required to transport water to the point of use from one (1) of the following:
  - (i) A point that is one (1) foot beyond the water storage tank.
  - (ii) The well if no water storage tank is utilized.
- (10) "Drawdown" means the vertical difference measured between the static and the pumping water levels. This term is commonly expressed in units of length.
- (11) "Flowing well" means a well completed in a confined aquifer where the water rises naturally to an elevation above land surface.
- (12) "Indirect additives" means additives that are materials or equipment that come in contact with drinking water or come in contact with direct additives. Examples of indirect additives include the following:
  - (A) Pipes, valves, and related products.
  - (B) Barrier or baffle materials.
  - (C) Joining and sealing materials.
  - (D) Protective materials and related products.
  - (E) Mechanical devices or structures used in treatment, storage, transmission, and distribution systems.
- (13) "Isolation area" means the separation distance of a public water supply system production well from a potential or existing source of contamination or damage as described in section 9 of this rule.
- (14) "Medium grade crushed bentonite" means natural bentonite crushed to an average size range of one-fourth (¼) to three-eighths (c) inch.
- (15) "Noncommunity public water supply system" or "NCPWSS" means a public water system that serves at least fifteen (15) service connections used by nonresidents or regularly serves twenty-five (25) or more nonresident individuals daily for at least sixty (60) days per year.
- (16) "Nontransient noncommunity public water supply system" means a noncommunity public water supply system that:
  - (A) serves at least fifteen (15) service connections used by nonresidents; or
  - (B) regularly serves the same twenty-five (25) or more nonresident individuals daily for at least six (6) months per year.
- (17) "Normal operating pressure" means the water pressure maintained in a system regardless of public service load in the absence of extenuating circumstances.
- (18) "Peak daily consumer demand" means the

flowrate as determined in 327 IAC 8-3.3.

(19) "Primary pump" means a pump used to deliver drinking water to a distribution system.

(20) "Production well" or "well" means a well that provides water for human consumption within the applicability of section 2 of this rule.

(21) "Professional engineer" means a person who is registered as a professional engineer by the state board of registration for professional engineers under IC 25-31.

(22) "Pumping test" means a test that is conducted to determine well performance or aquifer characteristics.

(23) "Rated capacity" means the flowrate that a pump is capable of producing at a total dynamic head as determined by the manufacturer of that pump. This term is usually expressed as a unit of volume produced from a well within a unit of time.

(24) "Regulatory flood" has the meaning as set forth in 310 IAC 6-1-3.

(25) "Schedule 40" refers to the unit of size of standard steel pipe. Standard pipe sizes are designated by the nominal size and schedule number; the schedule numbers are related to the permissible operating pressure of the pipe and to the allowable stress of the steel of the pipe. The range of schedule numbers is from ten (10) to one hundred sixty (160) with the higher numbers indicating a heavier wall thickness. Since all schedules of pipe of a given nominal size have the same outside diameter, the higher schedules have a smaller inside diameter.

(26) "Specific capacity" means the rate of discharge of a production well per unit of drawdown. This term is commonly expressed as a unit of volume produced from a well within a unit of time per length or depth of drawdown.

(27) "Static water level" means the level of water (including seasonal fluctuations) in the production well that is not influenced by pumping.

(28) "Test well" means a well that is installed to obtain hydrogeological information or to monitor the quality or quantity of ground water.

(29) "Unconsolidated formations" means geologic materials overlying bedrock, such as sand, gravel, and clay.

(30) "Usable capacity" means the volume of water available in a hydropneumatic tank as measured from the pump shut-off pressure to the pump starting pressure.

\*This document is incorporated by reference. Notwithstanding language to the contrary in the primarily incorporated documents, the versions of all secondarily incorporated documents, which are those documents referred to in the primarily incorporated documents, shall be the versions in effect on the date of final adoption of

this rule. Copies of this publication may be obtained from American Petroleum Institute, 1220 L Street NW, Washington, D.C. 20005 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-3.4-1; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3366; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 8-3.4-2 Applicability**

**Authority:** IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 2. The technical standards established in this rule are applicable to the design and construction of new or modified public water supply system production wells constructed in Indiana as specified in 327 IAC 8-3 and to the applications, plans, and specifications of those water wells that are reviewed by the commissioner. (*Water Pollution Control Board; 327 IAC 8-3.4-2; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3368; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 8-3.4-3 Certification**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 3. A professional engineer must certify that the well design as shown on an application, plans, and specifications for a public water supply system well is in compliance with this rule. (*Water Pollution Control Board; 327 IAC 8-3.4-3; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3368; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 8-3.4-4 Required information regarding the location of a proposed production well**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 4. (a) Two (2) copies of the following information shall be provided with each application for a proposed production well or for the conversion of an existing well to a production well:

(1) A description of the purpose of the proposed well, including the following:

(A) The anticipated well yield.

(B) The anticipated system demand.

(2) The following, as applicable, to demonstrate ownership or control of the isolation area of the

proposed well:

- (A) A copy of a recorded deed or easement.
- (B) A certified statement attesting to the ownership or control of the isolation area of the proposed well.
- (3) The rated capacity of the existing well or wells if the proposed well is in an existing well field.
- (4) The number of wells proposed for construction in the application.
- (5) The highest flood elevation on record with the Indiana department of natural resources in the proposed isolation area, as determined in section 9 of this rule, if any part of the isolation area is in an area identified by the Federal Emergency Management Agency (FEMA) as a flood hazard.
- (b) The following two (2) types of public water supply systems shall submit an application, for a new production well, that provides the information as specified:
  - (1) A CPWSS subject to this rule shall submit two (2) copies of the following:
    - (A) The information required by 327 IAC 8-4.1-13.
    - (B) Driving directions to the well site.
  - (2) A NCPWSS subject to this rule shall submit two (2) copies of the following:
    - (A) A detailed map, drawn to a scale, showing the following:
      - (i) The proposed well site with ownership or easement boundaries.
      - (ii) The location of the proposed well.
      - (iii) The standard isolation area in accordance with section 9 of this rule.
      - (iv) The results of a visual survey showing all sources of contamination within a radius of one thousand (1,000) feet.
    - (B) The United States Geological Survey (USGS) quadrangle name for the proposed production well site.
    - (C) A summary of geologic and ground water quality information, where available, for the aquifer system utilized by a proposed well.
    - (D) Driving directions to the production well site.
- (c) The plans required to be submitted with an application for a construction permit specified in 327 IAC 8-3-3 shall be submitted in duplicate and include plans of the proposed well site in accordance with the following:
  - (1) Each sheet of the plans must bear a dated signature and seal of a professional engineer.
  - (2) Include the entire isolation area, as described in section 9 of this rule, or the area within a one hundred (100) foot radius from the proposed well casing, whichever is greater, along with a description specifying the following:
    - (A) The finished grade that will prevent surface water ponding near the well location.

(B) The highest flood elevation on record with the Indiana department of natural resources in the proposed isolation area if any part of the isolation area is in an area identified by the FEMA as a flood hazard.

(C) The location of the following existing or proposed facilities:

- (i) Wells.
  - (ii) Roads and buildings.
  - (iii) Discharge piping.
  - (iv) Raw water transmission main.
  - (v) Sanitary sewers, storm sewers, manholes, and culverts.
  - (vi) Septic or sewage treatment equipment, including absorption field trenches.
  - (vii) Aboveground storage tanks, underground storage tanks, and the distribution device serving a tank of either type.
  - (viii) Surface water bodies.
  - (ix) A potential source of contamination not described in this clause.
- (3) If an existing or proposed facility listed in subdivision (2)(C) is not present in the isolation area, the application for a construction permit shall specify that fact.

*(Water Pollution Control Board; 327 IAC 8-3.4-4; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3368; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.4-5 Required information regarding the mechanics of a new production well**

**Authority:** IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 5. (a) The information required in this section shall be provided:

- (1) when a construction permit application is submitted; or
  - (2) in accordance with section 6 of this rule as a postconstruction submittal.
- (b) The following information shall be provided for a production well, whether it is proposed for construction or modification:
- (1) The type of proposed well described as tubular, gravel pack, radial collector, rock, or other type of well.
  - (2) The type of drilling method described as rotary, cable tool, bucket, or other type of drilling method.
  - (3) The depth of the proposed well.
  - (4) The following information regarding the casing of the proposed well:
    - (A) Length.

- (B) Diameter of the casing.
- (C) Diameter of the borehole.
- (D) Casing material characteristics, including the following:
  - (i) Material type.
  - (ii) Schedule or thickness.
  - (iii) Pressure rating if polyvinyl chloride (PVC) is utilized as the casing material.
- (E) Relative elevation or mean sea level elevation of the following:
  - (i) Top of casing.
  - (ii) Finished well house floor or slab.
  - (iii) Top of gravel pack.
  - (iv) Pump base.
  - (v) Finished grade.
- (5) The following information regarding the well screen:
  - (A) Material type.
  - (B) Length.
  - (C) Diameter.
  - (D) Slot size of screen.
  - (E) Design entrance velocity.
  - (F) Elevation of the following:
    - (i) Top of screen.
    - (ii) Base of screen.
- (6) The following information regarding the grout:
  - (A) Material type.
  - (B) Depth and the extent of the grouting.
- (7) The following information regarding the well pump:
  - (A) Type.
  - (B) Total dynamic head.
  - (C) Number of stages.
  - (D) Rated capacity.
  - (E) Pump curves.
  - (F) Type of lubrication.
  - (G) Provisions for power source.
  - (H) Provisions for emergency operation.
- (8) A description of equipment utilized for water level measurement.
- (9) The following information regarding the discharge piping:
  - (A) Material type.
  - (B) Pressure rating.
  - (C) Diameter.
  - (D) Description of the flow measuring equipment.
  - (E) Location of the following:
    - (i) Check valve.
    - (ii) Shut off valve.
    - (iii) Pressure gauge.
    - (iv) Smooth nosed sample tap.
    - (v) Air relief or vacuum relief valves where applicable.

(vi) Threaded or flanged port for maintenance and testing.

(c) The plans required to be submitted with an application for construction permit under 327 IAC 8-3-3 must include a cross section and plan view of the applicable proposed production well mechanics that includes the following:

- (1) Overall depth.
- (2) Depth of grouting.
- (3) Well screen location.
- (4) Casing details.
- (5) Discharge piping or raw water transmission main and components.
- (6) Well house and other protective equipment.
- (7) Pumping equipment.
- (8) Storage equipment.
- (9) Water treatment equipment.

*(Water Pollution Control Board; 327 IAC 8-3.4-5; filed Jun 17, 1999, 1:50 p.m.; 22 IR 3369; readopted filed Jan 10, 2001, 3:23 p.m.; 24 IR 1518)*

#### **327 IAC 8-3.4-6 Postconstruction submittal of information**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2; IC 13-18-16-2

Sec. 6. (a) If the applicant has elected to submit the information required in section 5 of this rule as a postconstruction submittal, the following must be received by the commissioner at least thirty (30) days before a new or modified production well with an effective construction permit is placed into production:

- (1) The construction permit number assigned by the commissioner.
- (2) Proposed commencement date of production.
- (3) Information required in section 5 of this rule.
- (4) As-built construction drawings, in accordance with section 5 of this rule and 327 IAC 8-3.

(b) The total of thirty (30) days, as specified in subsection (a), shall include all calendar days from the commissioner's date-stamped receipt of the items, specified in subsection (a), excluding the calendar days that occur between the following two (2) activities:

- (1) A commissioner's written notification to the applicant that the submittal does not fulfill the requirements of subsection (a) or is incomplete, is inaccurate, or indicates the proposed construction was not in accordance with this rule or 327 IAC 8-3-4.
- (2) The commissioner's date-stamped receipt of the applicant's submittal of additional information subsequent to the commissioner's notification, as described in subdivision (1), to demonstrate that the submittal

has achieved the requirements of subsection (a) and is complete, is accurate, and indicates the proposed construction was in accordance with this rule and 327 IAC 8-3-4.

(c) The commissioner may modify or revoke the construction permit based on the information submitted under subsection (a) in accordance with IC 13-18-16-2. (*Water Pollution Control Board; 327 IAC 8-3.4-6; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3370; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.4-7 Required easements, other permits**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 7. (a) An easement, deed restriction, or right-of-way granted for a production well must:

- (1) prohibit the construction of any permanent structure, with the exception of structures associated with the housing of the well equipment, over the production well; and
- (2) provide access to the production well site for maintenance purposes.

(b) A permit or exemption required by another government entity for a production well must be obtained prior to the commencement of construction under this rule. (*Water Pollution Control Board; 327 IAC 8-3.4-7; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3370; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.4-8 Production well materials**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 8. (a) A direct additive used with a production well must be in accordance with 327 IAC 8-1.

(b) An indirect additive in a production well shall be certified for conformance to American National Standards Institute (ANSI)/National Sanitation Foundation (NSF) International Standard 61, Drinking Water System Components-Health Effects, with the exception of Section 9, Mechanical Plumbing Product (November 13, 1997)\*.

(c) The certification requirement of subsection (b), that an indirect additive is in accordance with this rule, shall be satisfied if the indirect additive is listed with certification in one (1) of the following publications:

- (1) "NSF Listings, Drinking Water Additives-Health Effects" (November 13, 1997)\*.
- (2) "Classified or Recognized Drinking Water System Components, Component Materials and Treatment

Additives Directory" (December 1997)\*\*.

(d) The commissioner may approve the use of an indirect additive in a production well only after the applicant has demonstrated that the indirect additive is in compliance with the following:

(1) The indirect additive has been approved and is listed by one (1) of the publications specified by subsection (c).

(2) The indirect additive has been approved by an organization having a third party certification program for indirect additives that has been approved by the American National Standards Institute.

(e) A lead packer shall not be used in a production well.

(f) A public water supply system shall not introduce, permit, or allow the introduction of a material into the drinking water that does not meet the requirements of this rule or 327 IAC 8-1.

\*These documents are incorporated by reference. Notwithstanding language to the contrary in the primarily incorporated documents, the versions of all secondarily incorporated documents, which are those documents referred to in the primarily incorporated documents, shall be the versions in effect on the date of final adoption of this rule. Copies of this publication may be obtained from NSF International, 3475 Plymouth Road, Ann Arbor, Michigan 48113-0140 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

\*\*This document is incorporated by reference. Notwithstanding language to the contrary in the primarily incorporated documents, the versions of all secondarily incorporated documents, which are those documents referred to in the primarily incorporated documents, shall be the versions in effect on the date of final adoption of this rule. Copies of this publication may be obtained from Underwriters Laboratory, Inc., Engineering Services, 416C, 333 Pflingsten Road, Northbrook, Illinois 60062-2096 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-3.4-8; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3370; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.4-9 Separation of a production well from a potential or existing source of microbiological or chemical contamination or damage**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2; IC 15-3-3.5; IC 15-3-3.6

Sec. 9. A public water supply system shall comply with the following provisions for the separation of a production well from a potential or existing source of contamination or damage:

(1) The isolation area from a potential or existing source of contamination for the construction of a public water system production well is the circular area within a radius as stated in the following table:

Table 9-1

Isolation Radius Provisions (Linear Feet Measured from the Outside Edge of the Well Casing)

Public Water System Type	Standard Isolation Radius	Well Sub-jected to Automatic Disinfection*	Favorable Hydrogeologic Conditions are Present**
Community	200	100	100
Noncommunity greater than or equal to 70 gpm***	200	100	100
Noncommunity, Susceptible Pop-ulations****	200	100	100
Noncommunity, Nonsusceptible, less than 70 gpm***	100	100	100

\*Automatic disinfection as described in subdivision (2).

\*\*Favorable hydrogeologic conditions as described in subdivision (3).

\*\*\*70 gallons per minute (gpm) as measured per pump (rated capacity).

\*\*\*\*Schools, correctional facilities, health care facilities, and agricultural labor camps.

(2) The radius creating the isolation area shall be one hundred (100) feet for a well that will be subject to automatic disinfection treatment meeting the provisions of 327 IAC 8-2-8.6 prior to entering the distribution system.

(3) A determination of favorable hydrogeological conditions may be approved by the commissioner after the submission of a report that is signed, dated, and sealed by a certified professional geologist or other person legally authorized to perform geological services or a professional engineer who applies geology to the practice of engineering. The report must include

the following information:

(A) The thickness, vertical permeability, and spatial continuity of a protective layer or layers overlying the production aquifer.

(B) The local and regional geologic conditions of the well site area.

(C) The relative susceptibility to contamination of the proposed production aquifer.

(4) A well discharging into the inlet side of a surface water treatment process plant that meets the requirements of 327 IAC 8-2-8.5 and 327 IAC 8-2-8.6 shall not be held to an isolation area requirement.

(5) The isolation area shall be subject to the following additional requirements:

(A) The separation distance between two (2) or more wells of a public water supply system shall be maintained in accordance with the following:

(i) A production well with a pumping capacity of less than seventy (70) gallons per minute (GPM) shall not be located closer than fifty (50) feet from another production well.

(ii) A production well with a pumping capacity of greater than or equal to seventy (70) GPM shall not be located closer than one hundred (100) feet from another production well.

(iii) A public water supply system drinking water well that is a part of a transient noncommunity public water supply system that is not a nontransient noncommunity public water supply system shall not be closer than fifty (50) feet, regardless of the capacity of pumping equipment, from another well in the system.

(B) A storm or sanitary sewer shall not be located within the isolation area of a production well unless the storm or sanitary sewer is:

(i) more than fifty (50) feet, as measured from all directions, from a public water supply system production well; and

(ii) constructed in accordance with 327 IAC 8-3.2-8, 327 IAC 8-3.2-17(a), and 327 IAC 8-3.2-17(b).

(C) The standard isolation area for a public water supply system production well shall conform to the following requirements concerning transportation routes:

(i) Roadways, paved surfaces, and parking areas for service vehicles that:

(AA) service the proposed well, pump, and appurtenances;

(BB) are owned or controlled by the public water supply system; and

(CC) are restricted from access by the public; shall not be held to an isolation area requirement.

(ii) Roadways, paved surfaces, and parking areas

that are part of the following shall not be located within fifty (50) feet of a well:

- (AA) Residential subdivisions.
- (BB) Apartment communities.
- (CC) Mobile home parks.
- (DD) Recreational parks.

(iii) A transportation route, such as a railway, roadway, paved area, or parking area, including paved or unpaved roadway or surface areas, that is:

- (AA) accessible in full or in part for commercial or industrial transportation activities; or
- (BB) listed as a hazardous material route;

shall not be located within the standard isolation area as measured from the outside edge of the well casing to the traveled portion of the transportation route.

(D) The distance between the location of a public water supply system production well casing and a surface water body, such as a stream, pond, lake, river, impoundment, or drainage ditch, shall be a minimum of twenty-five (25) feet.

(6) The commissioner may modify the requirements of an isolation area or a separation distance to an alternative area or distance so long as the alternative area or distance shall be able to provide the same factor of safety for filtering pathogenic contaminants as the standard isolation area or separation distance. The commissioner's decision to allow an alternative isolation area or separation distance shall be based on the following conditions:

(A) The applicant's submission of a report describing:

- (i) treatment processes;
- (ii) geologic features;
- (iii) additional raw water monitoring provisions; or
- (iv) other means of providing pathogenic contaminant filtration.

(B) The report required by clause (A) must:

- (i) be signed and sealed by a professional engineer or certified professional geologist; or
- (ii) cite the applicable provisions of 327 IAC 8-4.1.

(7) A supplier of water to a public water system shall own or control the isolation area by recorded deed, easement, or long term lease.

(8) The use, application, storage, mixing, loading, and transportation of pesticides in accordance with IC 15-3-3.5, IC 15-3-3.6, and the rules and guidance thereunder, developed by the pesticide review board and the office of the Indiana state chemist, may occur within the standard isolation area if the following requirements are met by the public water system:

(A) The production well casing is constructed of steel in accordance with section 16 of this rule.

(B) The product is stored within a containment system designed, constructed, operated, and maintained to contain spills or leaks.

(9) Water treatment chemicals and fuels for water production equipment containing contaminants that are not registered pesticides regulated under the federal Safe Drinking Water Act, 42 U.S.C. 300f et seq., as amended August 6, 1996\* may be used, stored, mixed, loaded, and transported within the standard isolation area if the following conditions are met:

(A) The production well casing is constructed of steel in accordance with section 16 of this rule.

(B) The product is stored within a containment system designed, constructed, operated, and maintained to contain spills or leaks.

(C) The product is stored in an underground or aboveground storage tank that is in conformance with applicable federal, state, and local laws and regulations.

\*The federal Safe Drinking Water Act is incorporated by reference. Copies of this law may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room N1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-3.4-9; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3371; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.4-10 Production well design criteria**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 10. (a) A new public water supply system production well must have capacity to meet the pressure and flowrate demands of the system as calculated in section 12 of this rule.

(b) A public water supply system production well that is equipped with a well screen shall:

- (1) possess a sustainable yield that prevents the pumping level from dropping below the top of the well screen; and
- (2) operate with an entrance velocity less than or equal to one-tenth (0.1) foot per second.

(c) A public water supply system production well shall be evaluated to determine whether it is under the direct influence of surface water as required under 327 IAC 8-2-8.5(b). (*Water Pollution Control Board; 327 IAC 8-3.4-10; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3372; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-3.4-11 Production well minimum diameter**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 11. (a) The minimum inside diameter of a production well casing shall be five (5) inches.

(b) The minimum inside diameter of a production well casing shall be in accordance with the following table:

Table 11-1

Production Well Casing Minimum Diameter Requirements (inches) Based on Outside Diameter of Pump Assembly

Outside Diameter of Pump Assembly	Minimum (Actual) Inside Diameter of Well Casing
4	5
5	6
6	8
8	10
10	12
12	14
14	16
16	20
18	22
20	24
22	26

For a pump assembly with an outside diameter of between four (4) inches and twenty-two (22) inches but not appearing on this table, linear interpolation shall be used to determine the minimum inside diameter of the production well casing. For a pump assembly with an outside diameter greater than twenty-two (22) inches, the minimum inside diameter of the production well casing shall be at least one and twenty-five hundredths (1.25) times the outside diameter of the pump assembly. (*Water Pollution Control Board; 327 IAC 8-3.4-11; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3373; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-3.4-12 Flowrate and pressure requirements**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 12. (a) The normal operating pressure in the distribution system of a noncommunity public water supply system shall meet the following conditions:

(1) Be a minimum of thirty-five (35) pounds per square inch (psi) at ground level for a flowrate equal to the average daily consumer demand as determined in 327 IAC 8-3.3-2.

(2) Be at least twenty (20) psi under all conditions of flow in the distribution system and at ground level for a flowrate equal to the peak daily consumer demand as determined in 327 IAC 8-3.3-2.

(b) Flowrate and pressure requirements for a community public water supply system shall be in accordance with the requirements of 327 IAC 8-3.2-11. (*Water Pollution Control Board; 327 IAC 8-3.4-12; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3373; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-3.4-13 Backup provisions for production wells**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 13. (a) The following backup provisions shall apply to both a community public water supply system and a noncommunity public water supply system having a pumping capacity greater than or equal to seventy (70) gallons per minute:

(1) The backup provisions shall be designed to provide system conformance with section 12 of this rule when the largest pump is out of service.

(2) A system shall have one (1) or more backup wells designed to provide system conformance with section 12 of this rule.

(b) Schools, correctional facilities, health care facilities, and agricultural labor camps, regardless of pumping capacity, must comply with the requirements of subsection (a). (*Water Pollution Control Board; 327 IAC 8-3.4-13; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3373; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-3.4-14 Hydropneumatic storage tanks**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2; IC 22-12

Sec. 14. (a) A hydropneumatic storage tank shall abide by the following:

(1) The requirements of IC 22-12 and 680 IAC.

(2) Shall not be buried except when in accordance with subdivisions (3) and (4).

(3) A tank shall be protected from freezing and flooding.

(4) Provide housing as follows:

(A) A hydropneumatic storage tank with an air-water diaphragm separator shall be within housing.

(B) Hydropneumatic storage tanks without an air-water separator shall have all nontank mechanical parts, including valves, piping, and components, within housing.

- (5) Be equipped to provide the following:
- (A) The ability to isolate the tank from the rest of the public water system.
  - (B) A drain.
  - (C) Control equipment consisting of the following:
    - (i) A pressure gauge.
    - (ii) Pressure relief valve.
    - (iii) Air addition as follows:
      - (AA) Manual air addition may suffice for a hydropneumatic storage tank with an air-water diaphragm separator.
      - (BB) Equipment for automatic air addition shall be required for all other hydropneumatic storage tanks.
    - (iv) Start and stop controls for the pumps.

(b) The usable capacity of a hydropneumatic storage tank must be a minimum of three (3) times the installed rated capacity, in gallons per minute, of the primary pump, or pumps if more than one (1) pump is used to meet peak system demand, at an operating pressure of at least thirty-five (35) pounds per square inch.

(c) Hydropneumatic tank storage of water shall not be designated for fire protection purposes.

(d) A hydropneumatic tank shall not be used in a community public water supply system when more than four hundred (400) persons are served. (*Water Pollution Control Board; 327 IAC 8-3.4-14; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3373; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.4-15 Discharge piping**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 15. Discharge piping shall:

- (1) meet the material requirements of 327 IAC 8-3.2-8;
- (2) meet the installation requirements of 327 IAC 8-3.2-17;
- (3) have control valves and other accessories located above the pumphouse floor when the discharge piping is located above grade; and
- (4) be equipped with:
  - (A) check valve;
  - (B) shut off valve;
  - (C) pressure gauge;
  - (D) flow measuring equipment for individual or collective flow measurement;
  - (E) smooth nosed sample tap installed where positive pressure is maintained; and
  - (F) threaded or flanged port for maintenance and testing.

(*Water Pollution Control Board; 327 IAC 8-3.4-15; filed*

*Jun 17, 1999, 1:50 p.m.: 22 IR 3374; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.4-16 Casing and screen requirements**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 16. (a) A drinking water production well casing shall meet the following requirements:

- (1) A steel or stainless steel casing is required for the following:

- (A) A community public water supply system.
- (B) A public water supply system production well casing with an inside diameter greater than six (6) inches.

- (2) Steel or stainless steel shall meet the following:

- (A) Schedule 40 if the casing is less than or equal to ten (10) inches in diameter.
- (B) Be at least three hundred seventy-five thousandths (0.375) of an inch in thickness if the casing is greater than ten (10) inches in diameter.

- (3) Steel or stainless steel pipe used in a well casing shall be joined by:

- (A) threading and the use of screwed couplings; or
- (B) welding with full circumference welds.

- (4) A production well not regulated under subdivision (1) may be equipped with a polyvinyl chloride (PVC) well casing when all of the following are met:

- (A) The production well is not located within two hundred (200) feet of stored or staged petroleum products or any known sources of volatile or semivolatile organic contaminants.

- (B) The PVC casing is joined by solvent welding or mechanical joints that use PVC locking strips and synthetic watertight sealing gaskets.

- (C) The PVC well casing and joints meet the requirements of ANSI/ASTM F480-94 for "Thermoplastic Water Well Casing Pipe and Couplings made in Standard Dimension Ratios (SDR)" (Annual Book of ASTM Standards, March 1994)\*.

- (D) The minimum wall thickness of PVC casing is at least the equivalent of SDR 21 according to ANSI/ASTM F480-94 for "Thermoplastic Water Well Casing Pipe and Couplings made in Standard Dimension Ratios (SDR)" (Annual Book of ASTM Standards, March 1994)\*.

- (E) PVC casing shall be protected from damage from collision in accordance with the following:

- (i) Three (3) posts shall be placed in an equilateral formation no more than twenty-four (24) inches in radius from the outside edge of the casing.

- (ii) The posts specified in item (i) shall be

concrete-filled steel posts at least four (4) inches in diameter or hollow steel at least twenty-five hundredths (0.25) of an inch in thickness.

(iii) The posts specified in item (i) shall extend at least three (3) feet above grade and four (4) feet below grade.

(5) A permanent well casing shall terminate as follows:

(A) At the higher level of one (1) of the following:

(i) At least eighteen (18) inches above finished grade.

(ii) At least thirty-six (36) inches above the regulatory flood elevation if located in a designated flood hazard area identified by the Federal Emergency Management Agency (FEMA).

(B) At least twelve (12) inches above the pump house floor or concrete apron.

(b) The casing shall be vented to the atmosphere with a vent that terminates in a downturned position at or above the top of the casing or the pitless adapter unit. The vent shall have a minimum one and one-half (1½) inch diameter opening covered with a twenty-four (24) mesh, noncorrodible screen.

(c) A production well shall meet the following construction requirements:

(1) Have a maximum deviation from plumb not in excess of two-thirds (⅔) of the inside diameter of the well casing per one hundred (100) feet of well depth.

(2) Be aligned to permit proper operation of the type of permanent pump intended for the well. Alignment shall be tested as follows:

(A) By lowering into the well, through its entire depth, a section of pipe forty (40) feet long or a dummy of the same length.

(B) The pipe or dummy used as specified by clause (A) shall be in accordance with the following:

(i) One-half (½) inch less in diameter than the inside diameter of the part of the casing or hole being tested when the casing or hole diameter is ten (10) inches or less.

(ii) One (1) inch smaller than the inside diameter when that part of the casing or hole being tested is greater than ten (10) inches.

(C) An alignment test shall not be required inside well screens.

(d) A production well completed in an unconsolidated formation shall have screens installed and constructed of one (1) of the following materials:

(1) Stainless steel.

(2) PVC only if the casing material is also PVC.

(e) A production well casing shall be fitted to permit measurements of static and pumping water levels.

(f) A production well in an unconsolidated formation shall be packed with silica gravel if it has artificial gravel wall filters.

(g) The well house floor shall be at least six (6) inches above grade.

\*This document is incorporated by reference. Notwithstanding language to the contrary in the primarily incorporated documents, the versions of all secondarily incorporated documents, which are those documents referred to in the primarily incorporated documents, shall be the versions in effect on the date of final adoption of this rule. Copies of this publication may be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-3.4-16; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3374; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 8-3.4-17 Pitless adapter unit requirements**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 17. A production water well equipped with a pitless unit shall meet the following requirements:

(1) A pitless unit shall be constructed of steel or stainless steel unless the well casing is constructed of PVC in accordance with section 16 of this rule.

(2) A pitless unit shall be installed on the well casing using one (1) of the following types of joints:

(A) Welded.

(B) Flanged.

(C) Threaded.

(3) The discharge connection of a pitless unit shall be pressurized at all times.

(4) A pitless unit shall be designed so that the pump can be removed for servicing and maintenance without disturbing the underground discharge piping.

(5) A pitless unit shall have an inside diameter greater than or equal to the casing diameter if the casing diameter is less than twelve (12) inches.

(6) At least one (1) check valve shall be installed inside the well casing if a submersible pump is used.

(7) A compression joint shall not be used for the installation of a pitless unit.

(8) A buried suction line is not permitted.

(9) A saddle-type pitless adapter is not permitted.

(*Water Pollution Control Board; 327 IAC 8-3.4-17; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3375; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 8-3.4-18 Cross connection control requirements**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 18. Backflow and back siphonage prevention must be provided in accordance with 327 IAC 8-10. (*Water Pollution Control Board; 327 IAC 8-3.4-18; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3375; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.4-19 Emergency operation of a production well**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 19. Unless an alternate water supply capable of meeting average demand is available, a production well shall have the electrical equipment necessary for the use of one (1) of the following:

- (1) Dual power feeds.
- (2) Standby generators.

(*Water Pollution Control Board; 327 IAC 8-3.4-19; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3375; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.4-20 Rotary well drilling procedure requirements**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 20. A well constructed using rotary drilling shall be drilled in accordance with the following:

- (1) The borehole shall be at least three (3) inches greater in diameter than the outside diameter of the proposed casing.
- (2) The well shall be cased to a minimum depth of fifty (50) feet below the ground surface unless otherwise approved by the commissioner according to section 27 of this rule.
- (3) A production well constructed in an unconsolidated formation shall be gravel packed with silica gravel to an elevation at least ten (10) feet above the elevation of the top of the well screen.
- (4) The well shall have a minimum of twenty-five (25) feet of the borehole annulus grouted in accordance with section 23 of this rule.
- (5) A well penetrating bedrock shall have the borehole annulus grouted, in accordance with section 23 of this rule, from the bottom of the well casing, or the top of the formation packer to the ground surface or pitless adapter connection.

(*Water Pollution Control Board; 327 IAC 8-3.4-20; filed*

*Jun 17, 1999, 1:50 p.m.: 22 IR 3376; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.4-21 Cable tool well drilling procedure requirements**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 21. A well constructed using cable tool drilling shall be drilled in accordance with the following:

- (1) A borehole, with an inside diameter at least three (3) inches greater than the outside diameter of the well casing to be driven, shall be dug to a depth of at least three (3) feet, but no more than five (5) feet, below the ground surface.
- (2) The well casing shall be centered in the larger diameter borehole, and the borehole shall remain full of a bentonite slurry or granular bentonite during the installation of the well casing.
- (3) Notwithstanding section 23 of this rule, bentonite slurry may be introduced into the borehole annulus by gravity methods in a manner to prevent bridging.
- (4) The well shall be cased to a minimum depth of fifty (50) feet below the ground surface unless otherwise approved by the commissioner according to section 27 of this rule.
- (5) The well must be grouted in accordance with section 23 of this rule if one (1) of the following occurs:
  - (A) A larger diameter temporary casing is used to install a smaller diameter permanent well casing.
  - (B) A larger diameter borehole is drilled to install a smaller diameter well casing.

(*Water Pollution Control Board; 327 IAC 8-3.4-21; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3376; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.4-22 Bucket well requirements**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 22. Bucket well use, materials, and procedures must be presented as alternative technical standards in accordance with section 27 of this rule. (*Water Pollution Control Board; 327 IAC 8-3.4-22; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3376; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.4-23 Grouting requirements**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 23. This section governs grouting materials and the installation of grouting materials.

(1) Grouting materials shall consist of the following:

(A) Neat cement grout shall consist of cement conforming to ASTM C150 (1996 Annual Book of ASTM Standards)\* and contain at least two percent (2%) but no more than five percent (5%) by weight of bentonite additive.

(B) Bentonite slurry that can include polymers designed to retard swelling.

(C) Pelletized, granular, medium-grade, or coarse-grade crushed bentonite.

(D) Concrete grout shall consist of equal amounts of:

(i) cement, conforming to AWWA A100-90, Section 7 (effective February 1, 1991)\*\*; and

(ii) sand mixed with the addition of water to make a mixture not exceeding six (6) gallons of water per one (1) cubic foot of cement;

and contain at least two percent (2%) but no more than five percent (5%) by weight of bentonite additive.

(2) The installation of grouting materials shall be in accordance with the following:

(A) Except as provided in section 21(2) of this rule, neat cement and bentonite slurry shall be pressure pumped into place with a grout pipe from the bottom of the annular space upward in a continuous operation.

(B) Pelletized, granular, medium-grade, or coarse-grade crushed bentonite shall be introduced in a manner to prevent bridging of the borehole annulus.

(C) Concrete grout shall be installed according to one (1) of the following:

(i) Pressure pumped.

(ii) Placed by gravity through a grout pipe from the bottom of the annular space upward in a continuous operation.

(iii) Introduced in a manner to prevent bridging of the borehole annulus.

(3) The annulus of a well shall be grouted with one (1) of the types of grout as specified in subdivision (1) and in accordance with the applicable grout installation methods specified in subdivision (2), with the exception of a prohibition against using the method named in subdivision (2)(C)(iii), if:

(A) the diameter of the borehole is eight (8) inches or larger than the outside diameter of the well casing; and

(B) the well is equal to or less than one hundred (100) feet in depth.

(4) The annulus of a well shall be pressure grouted with neat cement, concrete grout, or a bentonite slurry if:

(A) the diameter of the borehole is less than eight (8)

inches larger than the outside diameter of the well casing; or

(B) the well is greater than one hundred (100) feet in depth.

(5) The annulus of a well may be grouted, with concrete grout containing gravel not larger than one-half (½) inch in size, by using gravity without the use of a grout pipe if:

(A) the diameter of the borehole is greater than twelve (12) inches larger than the outside diameter of the well casing; and

(B) the depth to be grouted is equal to or less than ten (10) feet.

(6) Grouting of the borehole annulus shall be accomplished upon the earlier of the following events:

(A) Within twenty-four (24) hours following the installation of the well casing.

(B) The removal of drilling equipment from the proposed well location.

(7) All work on the well shall cease during the grout set up time as specified by the grout material supplier.

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**327 IAC 8-3.4-24 Disinfection procedure requirements**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 24. (a) The disinfection procedures described in this section shall be performed with one (1) of the following approved forms of chlorine:

- (1) Calcium hypochlorite.
- (2) Sodium hypochlorite.

(b) Gravel installed in a new production well must be chlorinated by use of the following method:

- (1) Silica gravel for gravel pack shall be disinfected with calcium hypochlorite or sodium hypochlorite prior to installation in a well at a rate that will produce a liquid concentration of at least fifty (50) milligrams per liter (mg/L) as the gravel is installed.
- (2) The gravel, disinfected according to subdivision (1), shall be fed into a gravel chute or tremie to completely fill the annular void outside the well casing to the top gravel pack level.
- (3) Chlorine shall be added to the well, following the activity described in subdivision (2), and circulated until a chlorine concentration of not less than fifty (50) mg/L in the entire volume of fluid is achieved.

(c) Immediately before placement in the void caused by settled gravel in a well, replacement gravel shall be soaked in a chlorine solution of at least fifty (50) mg/L for a duration not less than thirty (30) minutes during initial construction or subsequent repairs.

(d) Permanent equipment and material used in a production well shall be chlorinated prior to installation by spraying exposed areas with a solution containing a

chlorine residual of no less than two hundred (200) milligrams per liter (mg/l).

(e) A new or modified well proposed to be a production well shall be chlorinated in accordance with one (1) of the following:

(1) The water in the well casing shall be treated for disinfection as follows:

(A) To create a chlorine residual of one hundred (100) milligrams per liter to the entire volume of water in the casing, well screen, and rock hole, if present.

(B) The well must be chlorinated using the compound requirements in Table 24-1.

(C) The well must be surged at least three (3) times following chlorination.

(D) The chlorinated water must remain in the well casing at least twelve (12) hours following the surging activity of clause (C).

(2) The water in the well casing shall be treated for disinfection as follows:

(A) To create a chlorine residual of fifty (50) mg/l to the entire volume of water in the casing, well screen, and rock hole, if present.

(B) The well must be chlorinated using the compound requirements in Table 24-1.

(C) The well must be surged at least three (3) times following chlorination.

(D) The chlorinated water must then remain in the well casing at least twenty-four (24) hours following the surging activity of clause (C).

Table 24-1

Well-Hole or Well-Casing Diameter (in.)	Amount of Chemical Compound		
	Volume per 100 Feet of Water Depth (gal)	Calcium Hypochlorite* (65 percent available Cl <sub>2</sub> )	Sodium Hypochlorite <sup>†</sup> (12 trade percent <sup>‡</sup> )
5	106.09	1.1 oz	5.65 fl oz
6	146.9	1.5 oz	7.8 fl oz
8	261.1	2.7 oz	13.9 fl oz
10	408.0	4.2 oz	1.4 pt
12	587.5	6.0 oz	2.0 pt
16	1,044.0	10.7 oz	3.5 pt
20	1,632.0	1 lb 1 oz	0.7 gal
24	2,350.0	1 lb 8 oz	1.0 gal
30	3,672.0	2 lb 6 oz	1.5 gal
36	5,287.0	3 lb 6 oz	2.2 gal
48	9,400.0	6 lb 1 oz	3.9 gal
60	11,690.0	9 lb 7 oz	6.1 gal

Notes:

\*Quantities of Ca (OCl)<sub>2</sub> based on 65 percent available chlorine by dry weight (16 oz = 1 lb).

†Quantities of NaOCl based on 12 trade percent available chlorine by US liquid measure (1 gal = 4 qt = 8 pt = 128 fl oz).

‡Trade percent is a term used by chlorine manufacturers; trade percent  $\times 10$  = grams of available chlorine in 1 liter of solution.

(f) After disinfection accomplished in accordance with subsection (e), a new or modified public water supply system production well and a flowing well shall be sampled for the presence of coliform at least twice, with sampling done no less than twenty-four (24) hours apart, by a laboratory certified by the Indiana state department of health. If the presence of coliform is indicated by the sample results, the disinfection of the well shall be repeated.

(g) Disposal of chlorinated water from well disinfection shall be to one (1) of the following sources:

- (1) A sanitary sewer with the approval of the local sewer authority.
- (2) A location other than a sanitary sewer in accordance with local, state, and federal regulations.

(*Water Pollution Control Board; 327 IAC 8-3.4-24; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3377; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.4-25 Postconstruction testing and reporting requirements**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2; IC 13-18-16-2

Sec. 25. (a) The following information must be submitted to the commissioner before a new or modified production well is placed into production:

- (1) Results of a production well performance test (PWPT) that was performed for a period of at least twenty-four (24) hours for a community public water supply system and at least eight (8) hours for a noncommunity public water supply system. The PWPT information submitted to the commissioner shall include the following:
  - (A) Pumping rate of test (at least one (1) times the maximum daily pumping rate).
  - (B) Static water level (stable before pumping).
  - (C) Water level at start up and at interim readings.
  - (D) Water level at the end of the PWPT.
  - (E) Specific capacity at the end of the PWPT.

(2) A copy of the Indiana department of natural resources' record of water well completed in accordance with the requirements of 310 IAC 16-2-6 [310 IAC 16 was repealed filed Nov 22, 1999, 3:34 p.m.: 23 IR 776. See 312 IAC 13.]

(3) The results of water quality samples obtained during test pumping.

(4) The results of disinfection confirmation samples

obtained during disinfection.

(5) Completed copies of the chemical analytical reports of sampling done and analyzed by a laboratory certified by the Indiana department of health for the following constituents:

- (A) Nitrate (NO<sub>3</sub>).
- (B) Fluoride.

(b) The commissioner may modify or revoke a construction permit based on the information submitted under subsection (a) in accordance with IC 13-18-16-2. (*Water Pollution Control Board; 327 IAC 8-3.4-25; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3378; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.4-26 Conversion of a nonproduction well to a production well**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 26. (a) A nonproduction well, such as a test well or a nonpublic water supply system well, must receive a construction permit in accordance with 327 IAC 8-3 before the well can be used as a production well to provide drinking water to a public water supply system.

(b) The commissioner may require the following information, in accordance with sections 4 and 5 of this rule and 327 IAC 8-3-3, for the purpose of reviewing a proposed conversion of a nonproduction well to a production well to confirm that the proposed production well conforms with this rule:

- (1) As-built drawings.
- (2) Report discussing the proposed production well and its conformance to this rule and 327 IAC 8-3-4.

(*Water Pollution Control Board; 327 IAC 8-3.4-26; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3379; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.4-27 Alternative to technical standards**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 27. (a) An alternative to a technical standard required by this rule may be approved by the commissioner for either a single application or for a public water supply system-wide application if the applicant demonstrates, in a written submission, that the alternative will meet the following:

(1) The requirements of 327 IAC 8-3-4.

(2) Provide drinking water of at least the same quality and normal operating pressure at the peak flowrate as the technical standards in this rule would provide.

(b) Continuing operation of the approved alternative technical standard shall require no renewal if the alternative technical standard is operated in the manner approved by the commissioner.

(c) An alternative to a technical standard shall only apply to the application or the public water supply system for which the alternative is requested. (*Water Pollution Control Board; 327 IAC 8-3.4-27; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3379; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### Rule 3.5. General Construction Permit for Water Mains

327 IAC 8-3.5-1	Definitions
327 IAC 8-3.5-2	Incorporation by reference
327 IAC 8-3.5-3	Eligibility and exclusions for eligibility
327 IAC 8-3.5-4	Notice of intent letter
327 IAC 8-3.5-5	General construction permit conditions
327 IAC 8-3.5-6	Responsible person
327 IAC 8-3.5-7	Certification
327 IAC 8-3.5-8	General construction permit program ban
327 IAC 8-3.5-9	Effect of general permit rule
327 IAC 8-3.5-10	Modification, nontransferability, retraction, and expiration
327 IAC 8-3.5-11	Inspection and enforcement
327 IAC 8-3.5-12	Requirements for the public water system

#### 327 IAC 8-3.5-1 Definitions

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-2; IC 13-18-1; IC 13-18-3; IC 13-18-4; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-15-2; IC 13-18

Sec. 1. In addition to the definitions contained in 327 IAC 8-3-1, the following definitions apply throughout this rule:

(1) "Alternative technical standard" means alternative technical standards as described in 327 IAC 8-3.2-20.

(2) "Average daily customer demand" means the average daily customer demand as determined in accordance with 327 IAC 8-3.3-2.

(3) "Entry point of the distribution system" means one (1) of the following points:

(A) For public water systems that utilize water treatment facilities, the point at which the drinking water has left the treatment facilities and has entered the distribution system.

(B) For public water systems that do not utilize water treatment facilities, the point at which the drinking water has left the supply facilities and has entered the distribution system.

(4) "General construction permit ban" means a decision issued in conformance with section 8 of this rule.

(5) "Notice of intent letter" or "NOI" means a written notification indicating a responsible person has elected to comply with the terms of this general construction permit rule in lieu of applying for an individual construction permit.

(6) "Peaking factor" means the peak daily customer demand factor as determined in accordance with 327 IAC 8-3.3-2.

(7) "Public water system" means a public water supply for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen (15) service connections or regularly serves at least twenty-five (25) individuals daily at least sixty (60) days out of the year. The term includes any collection, treatment, storage, and distribution facilities under control of the operator of such system, and used primarily in connection with such system and any collection or pretreatment storage facilities not under such control that are used primarily in connection with such system.

(8) "Public water system's daily capacity" means the public water system's daily capacity as determined in accordance with 327 IAC 8-3.3-3.

(9) "Responsible person" means a person as described by section 6 of this rule.

(10) "Two (2) year average peak" means the arithmetic mean of the highest five (5) daily pumpages as reported over the previous two (2) year period on the public water system's monthly report of operations on record with the department. If the public water system is less than two (2) years old, the term means the arithmetic mean of the highest five (5) daily pumpages as reported on the public water system's monthly report of operations on record with the department.

(11) "Water main" means any pipe located between all entry points to the distribution system and all customer service connection meters.

(12) "Transmission main" means a pipe described by any of the following:

(A) That transports water from a surface water intake to a surface water treatment plant.

(B) That transports water from a groundwater intake (well) to a water treatment plant (if present).

(C) That transports finished water from the treatment plant (if present) to the entry point of the distribution system.

(D) That is installed for the purpose of interconnecting separate public water systems.

(*Water Pollution Control Board; 327 IAC 8-3.5-1; filed Mar 31, 1999, 10:20 a.m.: 22 IR 2522; errata filed Aug 17, 1999, 3:15 p.m.: 23 IR 25; filed Mar 6, 2000, 7:56 a.m.: 23 IR 1627; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-3.5-2 Incorporation by reference**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-2; IC 13-18-1; IC 13-18-3; IC 13-18-4; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18

Sec. 2. (a) The following materials are incorporated by reference into this rule, to the extent provided in other sections of this rule:

- (1) The American Water Works Association (AWWA) Standard C700-90.
- (2) The American Water Works Association (AWWA) Standard C701-88.
- (3) The American Water Works Association (AWWA) Standard C702-92.
- (4) The American Water Works Association (AWWA) Standard C703-96.

(b) The matters incorporated by reference in subsection (a) may be obtained from either of the following:

- (1) American Water Works Association, 6666 West Quincy Avenue, Denver, Colorado 80235.
- (2) Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

*(Water Pollution Control Board; 327 IAC 8-3.5-2; filed Mar 31, 1999, 10:20 a.m.: 22 IR 2522; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 8-3.5-3 Eligibility and exclusions for eligibility**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-2; IC 13-18-1; IC 13-18-3; IC 13-18-4; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18

Sec. 3. (a) A responsible person as defined by section 6 of this rule is eligible for a general construction permit.

(b) A responsible person, responsible person's engineer, responsible person's developer, or the proposed public water system that has been issued a general construction permit program ban by the commissioner in accordance with section 8 of this rule is not eligible for a general construction permit.

(c) Proposed water main projects funded in entirety or in part by the Drinking Water State Revolving Fund are not eligible for a general construction permit.

(d) Proposed water main projects to a public water system under a connection ban in accordance with 327 IAC 8-3-4.2 are not eligible for a general construction permit.

(e) Proposed water main projects that meet any of the following criteria are not eligible for a general construction permit as defined by this rule:

- (1) The corresponding public water system has a two
- (2) year average peak that is between ninety percent

(90%) and one hundred percent (100%) of the public water system's daily capacity, and the product of the following is equal to or exceeds two percent (2%) of the public water system's daily capacity:

(A) The average daily customer demand of the proposed water main.

(B) The peaking factor of the proposed water main.

(2) The corresponding public water system's two (2) year average peak is equal to or less than ninety percent (90%) of the public water system's daily capacity and the sum of corresponding public water system's two (2) year average peak, and the product of the following is equal to or exceeds ninety-two percent (92%) of the public water system's daily capacity:

(A) The average daily customer demand of the proposed water main.

(B) The peaking factor of the proposed water main.

(3) The sum of corresponding public water system's two (2) year average peak and the product of the following is equal to or exceeds one hundred percent (100%) of the public water system's daily capacity:

(A) The average daily customer demand of the proposed water main.

(B) The peaking factor of the proposed water main.

(f) Proposed projects that meet the definition of a transmission main as defined by section 1 of this rule are not eligible for a general construction permit.

(g) An individual construction permit issued under 327 IAC 8-3 is required for all other water main extension construction meeting the criteria of 327 IAC 8-3-2(a) that is not eligible for a general construction permit in accordance with this section or does not meet the general construction permit conditions listed in section 5 of this rule. *(Water Pollution Control Board; 327 IAC 8-3.5-3; filed Mar 31, 1999, 10:20 a.m.: 22 IR 2522; errata filed Aug 17, 1999, 3:15 p.m.: 23 IR 25; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 8-3.5-4 Notice of intent letter**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-2; IC 13-18-1; IC 13-18-3; IC 13-18-4; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18

Sec. 4. (a) A responsible person who elects to participate in the General Construction Permit Program shall submit a NOI that complies with this section and is received by the commissioner at least thirty (30) calendar days before the commencement of construction of the proposed water main.

(b) A NOI must be submitted on forms obtained from the commissioner or a computer generated reproduction that is similar in appearance and identical in content to the forms generated by the commissioner.

(c) The NOI must be submitted by certified mail to the address provided on the NOI form.

(d) The NOI must include the following:

(1) The names, firms, addresses, and telephone numbers of the following:

(A) The responsible person.

(B) The responsible person's professional engineer.

(C) The responsible person's developer, resident project representative, or person who by other means is representing the construction aspects of the proposed project.

(2) The title of the proposed project for which the NOI is submitted.

(3) The name of the public water system and the corresponding public water system identification number, mailing address, and telephone number.

(4) The county and nearest public intersection and the nearest quarter section in which the construction project is located or, if the section, township, and range are not available, the latitude and longitude of the approximate center of the construction project to the nearest fifteen (15) seconds.

(5) A statement from the responsible person that indicates which one (1) of the following two (2) methods of construction activity notification the responsible person will comply with:

(A) The proposed construction schedule is included with the NOI.

(B) The proposed construction schedule will be submitted separate from the NOI at least ten (10) working days before the commencement of the construction and will include a copy of the information required in subdivisions (1) through (4).

(6) The certifications required in section 7 of this rule.

(7) A dated signature from the public water system certifying that the public water system will fulfill the requirements of section 12 of this rule.

(8) The average daily customer demand and the peaking factor of the proposed water main.

(9) The public water system's:

(A) daily capacity; and

(B) two (2) year average peak.

(10) Any fees as required by 327 IAC 8-3-7.

(11) A copy of any approvals from the commissioner of alternative technical standards that will apply to the proposed water main.

(12) A copy of any approvals from the commissioner of alternate average daily customer demand, peaking factor, or peak daily customer demand that will apply to the proposed water main.

(13) A copy of any written authorization of a duly authorized representative of a responsible person.

*(Water Pollution Control Board; 327 IAC 8-3.5-4; filed*

*Mar 31, 1999, 10:20 a.m.: 22 IR 2523; errata filed Aug 17, 1999, 3:15 p.m.: 23 IR 26; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.5-5 General construction permit conditions**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-2; IC 13-18-1; IC 13-18-3; IC 13-18-4; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18; IC 13-30

Sec. 5. (a) The proposed water main extension must meet the issuance requirements of 327 IAC 8-3-4.

(b) A copy of the NOI, all documentation supporting the project, plans, and specifications must be submitted to the public water system before the commencement of the water main construction.

(c) All documentation supporting the project must be readily accessible for review and copy for the duration of water main construction activities. In addition, a copy of the plans conforming to 327 IAC 8-3.2-5(c) and specifications must be available in accordance with the following:

(1) These items shall be on-site and readily accessible for review and copy throughout the duration of water main construction activities at the site if an office is present at the site.

(2) If there is no office present at the site, these items shall be producible for review and copy throughout the duration of water main construction activities at the site within sixty (60) minutes upon notification by the commissioner.

(d) Persons in violation of this rule shall take all reasonable steps to correct any adverse impact on the public health resulting from their noncompliance.

(e) Nothing in this rule shall be construed to relieve anyone from any responsibility, liability, or penalty to which they are or may be subject to under the local, state, or federal laws and regulations.

(f) Responsible persons identified by and regulated by this rule shall ensure that the construction to the public water system achieves compliance with the terms and conditions of this rule.

(g) During construction, where the public water system, responsible person, the responsible person's professional engineer, or the responsible person's developer, resident project representative, or person who by other means is representing the construction aspects of the proposed project becomes aware of a failure to submit any relevant facts or the submittal of incorrect information in a NOI, the responsible person shall promptly submit such facts or corrected information to the commissioner in writing utilizing certified mail and the address on the NOI form.

(h) The design and construction of the water main must meet all technical standards in 327 IAC 8-3.2 or, if any alternate technical standards are proposed for the project, the alternate technical standard must be approved by the commissioner in accordance with 327 IAC 8-3.2-20, and a copy of this approval must be submitted with the NOI.

(i) All nonresidential service connections must be equipped with a meter, and the size of the meter must be specified on the plans and specification of the water main. The metering devices must not be capable of exceeding the corresponding "Safe Maximum Operating Capacity" as specified on Table 1 of AWWA C700-90, AWWA C701-88, AWWA C702-92, or AWWA C703-96.

(j) At a peak flowrate equal to the peak daily customer demand as determined in subsection (k), the normal operating pressure in the water main shall not be less than twenty (20) pounds per square inch at the ground level at all points in the water main under all conditions of flow when demonstrated in conformance with subsection (l).

(k) For use in this section, the peak flowrate is equal to the sum of subdivisions (1) and (2) defined as follows:

(1) The fire flow value that is one (1) of the following:

(A) The fire protection flowrate that is provided by the public water system for the entire water main extension.

(B) Zero (0) if the public water system is not providing fire protection.

(2) The peak daily demand for each of the individual service connections defined as follows:

(A) For residential service connections, the peak daily customer demand is determined in accordance with 327 IAC 8-3.3-2(a)(1), or the peak daily customer demand as approved by the commissioner in accordance with 327 IAC 8-3.3-2(a)(4).

(B) For nonresidential service connections with meter sizes less than one (1) inch in diameter, the peak daily customer demand is equal to fifty (50) gallons per minute.

(C) For nonresidential service connections, the peak daily customer demand is equal to the "Safe Maximum Operating Capacity" flowrate as specified on Table 1 of AWWA C700-90, AWWA C701-88, AWWA C702-92, or AWWA C703-96.

(D) For nonresidential service connections, the peak daily customer demand as approved by the commissioner in accordance with 327 IAC 8-3.3-2(a)(4).

(l) The conformance with subsection (j) must be demonstrated with the use of a computer model or with hydraulic calculations, which must be included with the documentation supporting the project, that are to be readily accessible in accordance with subsection (c) and at the public water system in accordance with subsection (b).

(m) Persons in violation of this rule are subject to enforcement and legal action under IC 13-30. (*Water Pollution Control Board; 327 IAC 8-3.5-5; filed Mar 31, 1999, 10:20 a.m.: 22 IR 2524; errata filed Aug 17, 1999, 3:15 p.m.: 23 IR 26; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 8-3.5-6 Responsible person

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-2; IC 13-18-1; IC 13-18-3; IC 13-18-4; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18

Sec. 6. (a) A responsible person is described as follows:

(1) For a corporation, a responsible corporate officer. As used in this subsection, "responsible corporate officer" means:

(A) a president;

(B) a secretary;

(C) a treasurer;

(D) any vice president of the corporation in charge of a principal business function; or

(E) any other person who performs similar policy or decision making functions for the corporation.

(2) For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

(3) For a municipality, state, federal, or other public agency or political subdivision thereof, either a principal executive officer or ranking elected official.

(4) For a limited liability company, a registered agent.

(b) A responsible person may be represented by a person in accordance with each of the following:

(1) The authorization is made in writing by a person described under subsection (a).

(2) The authorization specifies either an individual or a position having responsibility for the overall design and construction of the project, such as the position of project manager, professional engineer, superintendent, or position of equivalent responsibility (a duly authorized representative may thus be either a named individual or any individual occupying a named position).

(3) The written authorization is submitted to the commissioner with the NOI.

(*Water Pollution Control Board; 327 IAC 8-3.5-6; filed Mar 31, 1999, 10:20 a.m.: 22 IR 2525; errata filed Aug 17, 1999, 3:15 p.m.: 23 IR 26; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 8-3.5-7 Certification

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-2; IC 13-18-1; IC 13-18-3; IC 13-18-4; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18

Sec. 7. (a) The responsible person must sign and date the NOI, making the following certification, "I certify that I have reviewed and understand the applicability and eligibility requirements of this rule and that the water main proposed with the submission of this NOI meets the applicability and eligibility requirements of this rule. I also certify that the design and construction of this project will be performed under my direction or supervision to assure conformance with 327 IAC 8-3.5, and will meet all local rules or laws, regulations, and ordinances. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(b) A responsible person's professional engineer who is representing the design aspects of the proposed project must sign and date the NOI, making the following certification, "I certify under penalty of law that the design of this project will be performed under my direction or supervision to assure conformance with 327 IAC 8-3.5 and that the plans and specifications will require the construction of said project to be performed in conformance with this rule. The design of the proposed project will meet all local rules or laws, regulations, and ordinances. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(c) A responsible person's developer, resident project representative, or person who by other means is representing the construction aspects of the proposed project must sign and date the NOI, making the following certification, "I certify under penalty of law that the construction of this project will be performed under my direction or supervision to assure conformance with 327 IAC 8-3.5. The construction of the proposed project will meet all local rules or laws, regulations, and ordinances. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(d) The responsible person representing the public water system for which the water main is proposed must sign and date the NOI, making the following certification, "I certify under penalty of law that I agree to furnish water to the area in which the water main is proposed. I acknowledge the public water system's responsibility for examining the plans and specifications to determine that the proposed water main meets local rules or laws, and ordinances. I also acknowledge the public water system's

responsibilities as outlined in 327 IAC 8-3.5-12. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment." (*Water Pollution Control Board; 327 IAC 8-3.5-7; filed Mar 31, 1999, 10:20 a.m.: 22 IR 2525; errata filed Aug 17, 1999, 3:15 p.m.: 23 IR 26; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.5-8 General construction permit program ban**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-2; IC 13-18-1; IC 13-18-3; IC 13-18-4; IC 13-18-16-8

**Affected:** IC 4-21.5-3-7; IC 13-18

Sec. 8. (a) The commissioner may issue a general construction permit program ban to a person or a public water system who has been issued a notice of violation from the commissioner or has entered into an agreed order with the commissioner as the result of noncompliance with this rule, 327 IAC 8-3, or 327 IAC 8-3.2 within the previous five (5) years of the commissioner's general construction permit ban issuance.

(b) The commissioner shall notify the person or the public water system in writing of such decision to impose a general construction permit program ban by certified mail, return receipt requested.

(c) A NOI received by the commissioner before the effective date of the general construction permit program ban is exempted from the general construction permit program ban.

(d) A person or a public water system aggrieved by the imposition of a general construction permit program ban may appeal the decision of the commissioner at a hearing held in accordance with IC 4-21.5.

(e) A general construction permit program ban may remain effective for a time period established by the commissioner not to exceed five (5) years.

(f) A person or public water system that has been issued a general construction permit program ban may apply for an individual construction permit in accordance with 327 IAC 8-3. (*Water Pollution Control Board; 327 IAC 8-3.5-8; filed Mar 31, 1999, 10:20 a.m.: 22 IR 2526; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.5-9 Effect of general permit rule**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-2; IC 13-18-1; IC 13-18-3; IC 13-18-4; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18

Sec. 9. Compliance with the general construction permit rule does not:

(1) convey any property rights of any sort or any exclusive privileges;

- (2) authorize any injury to persons or private property or invasion of other private rights or any infringement of federal, state, or local laws or regulations;
- (3) substitute any duty to obtain other state or local approval or permits required by law for the proposed construction project; or
- (4) construe as guaranteeing that the proposed construction project shall meet standards, limitations, or requirements of any agency of state or federal government.

*(Water Pollution Control Board; 327 IAC 8-3.5-9; filed Mar 31, 1999, 10:20 a.m.: 22 IR 2526; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.5-10 Modification, nontransferability, retraction, and expiration**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-2; IC 13-18-1; IC 13-18-3; IC 13-18-4; IC 13-18-16-8  
**Affected:** IC 13-11-2; IC 13-18

Sec. 10. (a) The information on the NOI may be modified with a written submittal of an amendment to the NOI received by the commissioner at least fifteen (15) calendar days before the commencement of the construction of the water main.

(b) A general construction permit may not be transferred.

(c) If a responsible person chooses not to commence construction of a water main that is the subject of a NOI, the responsible person must notify the commissioner of the decision.

(d) The proposed project for a general construction permit must commence within twelve (12) months of the submittal of the NOI. The commissioner may extend the duration upon receipt of a written request from the responsible person that states no changes have occurred with the NOI. Such request must be submitted using certified mail to the address on the NOI form and be received by the commissioner within twelve (12) months of the NOI submission. *(Water Pollution Control Board; 327 IAC 8-3.5-10; filed Mar 31, 1999, 10:20 a.m.: 22 IR 2526; errata filed Aug 17, 1999, 3:15 p.m.: 23 IR 26; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.5-11 Inspection and enforcement**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-2; IC 13-18-1; IC 13-18-3; IC 13-18-4; IC 13-18-16-8  
**Affected:** IC 13-11-2; IC 13-14-2-2; IC 13-14-5; IC 13-18

Sec. 11. (a) The commissioner may inspect any site, pursuant to IC 13-14-2-2 and IC 13-14-5, including the public water system, involved in the construction of a project regulated by this rule. The commissioner may take samples or test at any site involved in the construc-

tion of a project regulated by this rule.

(b) If the commissioner determines, based on the inspection of the NOI, plans or specifications, or the construction of the project, that the project does not comply with the general construction permit rule, the commissioner may do the following:

(1) Require the responsible person to undertake necessary action to achieve compliance with the general construction permit rule.

(2) Notify the responsible person of the commissioner's order of an immediate stop to the commencement or further progression of the construction of the project in the area of the noncompliance.

(3) Notify the responsible person of the commissioner's order of an immediate stop to the commencement or further progression of the construction of the entire project.

(4) Revoke the ability to construct with the general construction permit.

(c) Persons regulated by this rule shall furnish to the commissioner any information requested by the commissioner to determine compliance with this rule and whether cause exists for revoking approval to construct under this rule. *(Water Pollution Control Board; 327 IAC 8-3.5-11; filed Mar 31, 1999, 10:20 a.m.: 22 IR 2526; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.5-12 Requirements for the public water system**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-2; IC 13-18-1; IC 13-18-3; IC 13-18-4; IC 13-18-16-8  
**Affected:** IC 13-11-2; IC 13-18

Sec. 12. (a) The public water system must maintain the information contained on each NOI and all documents submitted with each NOI for all water main construction with a general construction permit.

(b) The public water system must maintain the information contained on the plans and specifications for each corresponding NOI for all water main construction with a general construction permit. *(Water Pollution Control Board; 327 IAC 8-3.5-12; filed Mar 31, 1999, 10:20 a.m.: 22 IR 2527; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 3.6. Demonstration of New Public Water Supply System Capacity**

- 327 IAC 8-3.6-1 Definitions
- 327 IAC 8-3.6-2 Applicability
- 327 IAC 8-3.6-3 Water system management plan submission
- 327 IAC 8-3.6-4 Technical capacity of a new public water supply system
- 327 IAC 8-3.6-5 Financial capacity of a new public water supply system

327 IAC 8-3.6-6 Managerial capacity of a new public water supply system

327 IAC 8-3.6-7 Certification of capacity

### 327 IAC 8-3.6-1 Definitions

**Authority:** IC 13-13-5; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-21-3

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 1. In addition to the applicable definitions contained in IC 13-11-2, 327 IAC 8-3.2-1, and 327 IAC 8-3.4-1, the following definitions apply throughout this rule:

(1) "Financial capacity" means the ability of a public water supply system to acquire and manage sufficient financial resources to allow the system to achieve and maintain compliance with this article.

(2) "Managerial capacity" means the ability of a public water supply system to conduct its affairs in a manner enabling the system to achieve and maintain compliance with this article.

(3) "New public water supply system" means the following:

(A) A community water supply system or nontransient noncommunity water supply system that is newly constructed and will commence operation after October 1, 1999.

(B) A community water supply system or nontransient noncommunity water supply system that has not previously met the definition of a public water supply system but will have expanded infrastructure after October 1, 1999, to meet the definition of a public water supply system.

(C) A community water supply system, nontransient noncommunity water supply system, or transient water supply system that currently meets the definition of a public water supply system and expands its infrastructure after October 1, 1999, if such expansion results in a change in the classification of the system to a community water supply system or a nontransient noncommunity water supply system.

(4) "Technical capacity" means the physical and operational ability of a public water supply system to meet the requirements of this article.

*(Water Pollution Control Board; 327 IAC 8-3.6-1; filed Aug 10, 1999, 8:54 a.m.: 22 IR 3678; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### 327 IAC 8-3.6-2 Applicability

**Authority:** IC 13-13-5; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-21-3

**Affected:** IC 13-18-16

Sec. 2. (a) This rule applies to a new public water

supply system that commences operation after October 1, 1999.

(b) This rule does not apply to a public water supply system in operation prior to October 1, 1999, except as provided in section 1(3)(C) of this rule. *(Water Pollution Control Board; 327 IAC 8-3.6-2; filed Aug 10, 1999, 8:54 a.m.: 22 IR 3679; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### 327 IAC 8-3.6-3 Water system management plan submission

**Authority:** IC 13-13-5; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-21-3

**Affected:** IC 13-18-16

Sec. 3. (a) A new public water supply system shall submit to the commissioner a water system management plan that demonstrates the capacity of the proposed public water supply system. The plan shall include, at a minimum, an assessment of the following:

(1) Technical capacity according to section 4 of this rule.

(2) Financial capacity according to section 5 of this rule.

(3) Managerial capacity according to section 6 of this rule.

(b) Four (4) copies of the water system management plan shall be submitted to the commissioner in advance of the public water supply system's intended submission to the commissioner of application for a construction permit with sufficiency to allow the commissioner one hundred twenty (120) days for review of the water system management plan.

(c) Information requested by section 4, 5, or 6 of this rule that the applicant cannot provide shall be:

(1) identified as being not applicable or not available; and

(2) accompanied by an explanation of its absence.

(d) A written request by the commissioner for additional information from the applicant, due to an incomplete water system management plan, shall extend the one hundred twenty (120) days allowed for the commissioner's review. *(Water Pollution Control Board; 327 IAC 8-3.6-3; filed Aug 10, 1999, 8:54 a.m.: 22 IR 3679; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### 327 IAC 8-3.6-4 Technical capacity of a new public water supply system

**Authority:** IC 13-13-5; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-21-3

**Affected:** IC 13-18-16; IC 25-31

Sec. 4. (a) A water system management plan shall provide the following technical capacity information:

- (1) Details of the public water supply system that include the following:
- (A) A description of the type of system, including:
    - (i) whether it is a community public water supply system or a nontransient noncommunity public water supply system and the basis for determining the system type; and
    - (ii) the population to be served.
  - (B) A description of the planned service area, including:
    - (i) the anticipated growth for the next twenty (20) years; and
    - (ii) the plans to provide for the demand of the anticipated growth.
  - (C) A description of the public water supply system by county, section, township, and range.
  - (D) A site plan that includes the location of the following, as applicable:
    - (i) Wells.
    - (ii) Surface water intakes.
    - (iii) Treatment facilities.
    - (iv) Storage facilities.
    - (v) Pumping facilities.
    - (vi) Connections to another public water supply system.
    - (vii) Other applicable facilities.
  - (E) A description, design basis, and anticipated useful life for treatment and transmission facilities, including the following:
    - (i) Treatment plants.
    - (ii) Pipes.
    - (iii) Pumping stations.
    - (iv) Storage facilities.
  - (F) The identification of interconnections with other systems.
  - (G) A description and design basis of the fire protection demand on the system.
  - (H) A description of a plan for metering water production by source and water use by consumers.
  - (I) A description of plans to manage waste generated by the treatment processes of the public water supply system.
  - (J) A description of the highest flood elevation at the site of sources and treatment facilities, if the site is within the one hundred (100) year frequency flood plain.
- (2) Details of an assessment of the water supply source adequacy that include the following:
- (A) A site map for each water supply source that must be drawn to scale with the scale disclosed on the map.
  - (B) A narrative describing each source, and a description of land uses within a three thousand (3,000) foot radius of each water supply source.
  - (C) The design basis for system demands, including:
    - (i) average daily; and
    - (ii) peak daily;
 consumer demand according to 327 IAC 8-3.3-2.
  - (D) An analysis of a proposed source to reliably meet consumer demand.
  - (E) A geological or hydrogeological characterization of the source of the drinking water supply.
  - (F) A summary of a source water quality analysis that includes the applicable primary and secondary drinking water standards.
  - (G) The proposed activities to protect source water.
- (3) A public water supply system that proposes to purchase water from another public water supply system must provide documentation of a planned purchase agreement with the other public water supply system.
- (4) A method to meet the requirements of the following public drinking water rules:
- (A) 327 IAC 8-1 concerning drinking water direct additives and indirect additives.
  - (B) 327 IAC 8-2-8.5 concerning filtration and disinfection.
  - (C) 327 IAC 8-3 concerning public water supply construction permits.
  - (D) 327 IAC 8-3.4 concerning public water system wells.
  - (E) 327 IAC 8-4.1 concerning wellhead protection.
  - (F) 327 IAC 8-10 concerning cross connection control.
- (5) A method to provide for the operation, maintenance, inspection, testing, repair, replacement, and associated record keeping for the following, according to the American Water Works Association Standards, Section A100 through Section F100 (February 1998 Edition)\* and the Recommended Standards for Water Works, Great Lakes—Upper Mississippi River Board of State Public Health and Environmental Managers (1997 Edition)\*\*:
- (A) Source of supply facilities.
  - (B) Pumping facilities.
  - (C) Water meters.
  - (D) All components of the treatment process.
  - (E) Storage tanks, including the following:
    - (i) Cleaning.
    - (ii) Painting.
  - (F) Water mains, including the following:
    - (i) Flushing.
    - (ii) Exercising valves.
  - (G) Approved cross connection control devices.
- (6) Details of an infrastructure replacement plan that include the following:

- (A) A schedule of equipment replacement.
- (B) Estimated life expectancy of equipment.
- (C) Expected replacement date.
- (D) Estimated cost of replacement.

(7) Details for providing a certified operator in charge of the public water supply system and complying with applicable state and federal requirements concerning certified operators, including 327 IAC 8-12.

(b) The technical capacity information required by subsection (a) shall:

(1) be prepared by:

- (A) a professional engineer, as described under IC 25-31, who is registered in Indiana;
- (B) a licensed professional geologist, as described in 305 IAC 1-2-5, who is registered in Indiana; or
- (C) a qualified person under the direct supervision of a professional engineer or licensed professional geologist registered in Indiana;

as applicable according to the information required; and

(2) demonstrate that the proposed public water supply system shall produce drinking water that meets public water supply requirements of this article.

\*This document is incorporated by reference. Notwithstanding language to the contrary in the primarily incorporated documents, the versions of all secondarily incorporated documents, which are those documents referred to in the primarily incorporated documents, shall be the versions in effect on the date of final adoption of the primarily incorporated document. Copies of this publication may be obtained from the American Water Works Association, 6666 West Quincy Avenue, Denver, Colorado 80235 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

\*\*This document is incorporated by reference. Notwithstanding language to the contrary in the primarily incorporated documents, the versions of all secondarily incorporated documents, which are those documents referred to in the primarily incorporated documents, shall be the versions in effect on the date of final adoption of the primarily incorporated document. Copies of this publication may be obtained from Health Education Services, P.O. Box 7126, Albany, New York 12224 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 8-3.6-4; filed Aug 10, 1999, 8:54 a.m.: 22 IR 3679; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.6-5 Financial capacity of a new public water supply system**

**Authority:** IC 13-13-5; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-21-3

**Affected:** IC 13-18-16

Sec. 5. (a) A new community public water supply system shall provide the following financial capacity information as part of the water system management plan:

(1) A five (5) year budget plan that includes the following:

(A) A pro forma income statement, balance sheet, statement of retained earnings, and statement of cash flows for each of the next five (5) years.

(B) An accounting of operating revenues for the following:

- (i) Metered water revenues.
- (ii) Unmetered water revenues.
- (iii) Fire protection revenues.
- (iv) Sales for resale.
- (v) Other water revenues.

(C) An accounting of operating expenses for the following:

(i) Operation and maintenance, including the following:

- (AA) Operating expenses by category.
- (BB) The greater of depreciation or extensions and replacements.
- (CC) Taxes other than income.
- (DD) Operating income before income taxes.
- (EE) Current federal income taxes.
- (FF) Current state income taxes.
- (GG) Deferred income taxes.
- (HH) Income tax credits.
- (II) Other charges and credits.
- (JJ) Net operating income.

(KK) Debt service and debt service reserve, including an anticipated amortization schedule on any proposed borrowings.

(ii) Administration expenses, including the following:

- (AA) Salaries.
- (BB) Benefits.
- (CC) Supplies.
- (DD) Insurance.
- (EE) Legal fees.
- (FF) Engineering fees, studies, and plans.
- (GG) Reporting requirements.
- (HH) Accounting services.
- (II) Costs to comply with other applicable state or local requirements.

(2) A twenty (20) year financial plan, in five (5) year

increments, including the following:

(A) Projected growth and a description of the ability to meet expected growth.

(B) An infrastructure replacement plan, required by section 4(a)(6) of this rule, including funding of the plan.

(C) An account for funding necessary repairs to the proposed public water system to meet the drinking water standards and projected growth.

(b) A new nontransient noncommunity public water supply system shall submit a five (5) year budget plan that describes the public water supply system's source of revenue and ability to meet the costs associated with the public water supply system portion of the business, including the following:

(1) A summary of the revenues directed to the construction, operation, maintenance, and administration of the new nontransient noncommunity public water supply system.

(2) A detailed listing of the expenses associated with the construction, operation, maintenance, and administration of the new nontransient noncommunity public water supply system.

(c) The financial capacity information required by subsections (a) and (b) shall be prepared by a certified public accountant who is registered in Indiana. (*Water Pollution Control Board; 327 IAC 8-3.6-5; filed Aug 10, 1999, 8:54 a.m.: 22 IR 3681; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-3.6-6 Managerial capacity of a new public water supply system**

**Authority:** IC 13-13-5; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-21-3

**Affected:** IC 13-18-16; IC 25-31

Sec. 6. A water system management plan shall provide the following managerial capacity information:

(1) A description of the organization, the purpose, the corporate status, and the nature of the entity, and its ownership that includes the following:

(A) Name of the owner of the public water supply system.

(B) Name of the following, where applicable:

(i) Chief executive officer.

(ii) Director.

(iii) Agency head.

(iv) Members of the board of directors.

(C) An organizational structure chart showing the following:

(i) The chain of command.

(ii) Other aspects of management related to operation.

(D) An assessment of the job responsibilities and estimated time commitment in hours for each management job position.

(2) A description of the ability to respond to an emergency situation that includes the following:

(A) Identification of:

(i) risks, whether they be:

(AA) known;

(BB) potential;

(CC) natural in origin; or

(DD) human caused;

(ii) staff members, by job position, that are responsible to act in response to risks; and

(iii) the risk response actions to be taken by staff.

(B) Notification procedures to be implemented during an emergency.

(C) A means to obtain an alternate water supply.

(D) The existence and limits of casualty insurance.

(3) An assessment of consolidation with or interconnection to another public water supply system, including the following:

(A) A narrative describing:

(i) the accessibility to another public water supply system;

(ii) efforts by a proposed public water supply system to notify other operating public water supply systems, within a ten (10) mile radius, that there is a proposal to develop a new public water supply system;

(iii) the response to notification required by item (ii); and

(iv) whether an agreement can be obtained for consolidation with or interconnection to an operating public water supply system within a ten (10) mile radius.

(B) A cost benefit analysis comparing:

(i) development of a new public water supply system;

(ii) consolidation with an existing public water supply system; and

(iii) interconnection with an existing public water supply system.

(C) The information required by this subdivision shall be prepared by a professional engineer, as described under IC 25-31, who is registered in Indiana, or by a qualified person under the direct supervision of a professional engineer registered in Indiana.

(4) An assessment of authority and responsibility, including the following:

(A) A narrative describing proposed policies, ordinances, rules, or regulations, that, at a minimum, define the following:

(i) Conditions required for providing water service for existing or new connections.

(ii) Responsibilities of the public water supply system to the consumer.

(iii) Responsibilities of the consumer to the public water supply system.

(B) A summary of existing local, state, or federal requirements pertaining to and explaining the effects upon the proposed public water supply system.

(5) A description of the following:

(A) The minimum required qualifications for the following staff:

(i) Owners.

(ii) Directors.

(iii) Managers.

(iv) Operators.

(v) Other responsible persons.

(B) A proposal for continuing training.

*(Water Pollution Control Board; 327 IAC 8-3.6-6; filed Aug 10, 1999, 8:54 a.m.: 22 IR 3681; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-3.6-7 Certification of capacity**

**Authority:** IC 13-13-5; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-21-3

**Affected:** IC 13-18-16

Sec. 7. (a) The commissioner shall do the following:

(1) Review a water system management plan that contains the following:

(A) The information required by this rule.

(B) A statement signed by the owner or person in responsible charge of the public water supply system attesting to having reviewed and to understanding the contents of the water system management plan.

(2) Deny the water system management plan and return it to the applicant if the plan fails to demonstrate the technical, financial, or managerial capacity of the proposed public water supply system.

(3) Issue a written determination that the public water supply system has met the technical, financial, and managerial capacity requirements of this rule.

(b) The commissioner may contact the applicant, by letter, to request omitted or supplemental information that is related to the water system management plan of the public water supply system. *(Water Pollution Control Board; 327 IAC 8-3.6-7; filed Aug 10, 1999, 8:54 a.m.: 22 IR 3682; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 4. Approval of Public Water Supply Plans**

327 IAC 8-4-1 Public water supply plans; approval by board

### **327 IAC 8-4-1 Public water supply plans; approval by board**

**Authority:** IC 13-7-7-5; IC 13-7-14-5

**Affected:** IC 13-7-7-5; IC 13-7-14-5

Sec. 1. (a) No city, town, county, public institution, firm, corporation, or officer or employee thereof, or other person, shall install or contract for the construction of any public water supply facilities, including water purification or treatment works, or make any material change in any such existing facilities or works, until plans and specifications, together with an engineer report supporting in detail the design set forth in such plans, shall have been submitted to and approved by the commissioner, so far as relates to their sanitary features.

(b) After such plans and specifications have been approved by the commissioner, no material changes in the location, plans, construction, or operation of any such system or works may be made without first submitting to the commissioner a detailed statement of such proposed changes and receiving its approval.

(c) Said plans, specifications, reports and other information shall be submitted of such form and contents as may from time to time be specified by the commissioner.

(d) Whenever information regarding already existing water supply facilities or water treatment works, or regarding the operation and maintenance thereof, may be required by the commissioner, the public officials, or person, firm, or corporation having the works in charge shall promptly furnish such information.

(e) All such plans hereafter to be submitted to the commissioner for approval, shall have been prepared by or under the supervision of a professional engineer legally registered in the state of Indiana, be certified by him and bear his official seal.

(f) Provided, that nothing contained in this rule (327 IAC 8-4) shall apply to water supplies installed, or to be installed in connection with a private dwelling or residence. *(Water Pollution Control Board; 327 IAC 8-4-1; filed Sep 24, 1987, 3:00 pm: 11 IR 711; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **Rule 4.1. Wellhead Protection**

327 IAC 8-4.1-1 Definitions

327 IAC 8-4.1-2 Applicability of rule

327 IAC 8-4.1-3 Enforcement

327 IAC 8-4.1-4 Local planning teams

327 IAC 8-4.1-5 Criteria for selecting the delineation method for determining the wellhead protection area

327 IAC 8-4.1-6 Map requirements

327 IAC 8-4.1-7 Delineation

327 IAC 8-4.1-8 Phase I submittal requirements

327 IAC 8-4.1-9 Phase II submittal requirements

- 327 IAC 8-4.1-10 Department review of Phase I and Phase II submittal requirements
- 327 IAC 8-4.1-11 Tracking of potential sources of contamination inventory and management plan
- 327 IAC 8-4.1-12 Submittal requirements for proposed new wells
- 327 IAC 8-4.1-13 New well site submittal requirements
- 327 IAC 8-4.1-14 Well site denial criteria
- 327 IAC 8-4.1-15 Alternative approaches to WHPP
- 327 IAC 8-4.1-16 Community public water supply systems submittal deadlines; department approval deadlines

### 327 IAC 8-4.1-1 Definitions

**Authority:** IC 13-14-8; IC 13-18-3; IC 13-18-17-6

**Affected:** IC 13-11-2-43; IC 13-13-2; IC 13-18; IC 15-3-3.5; IC 15-3-3.6; IC 25-17.6-1; IC 25-39-4

Sec. 1. In addition to the definition in IC 13-11-2-43, the following definitions apply throughout this rule:

- (1) "Aquifer" means an underground geological formation that has the ability to receive, store, and transmit water in amounts sufficient for the satisfaction of any beneficial use.
- (2) "Best management practices" means schedules of activities, prohibitions of practice, treatment requirements, operation and maintenance procedures, use of containment facilities, and other management practices to prevent or reduce the pollution of waters of the state.
- (3) "Calibration" means the process of refining the model representation of the hydrogeologic framework, hydraulic properties, and boundary conditions to achieve a desired degree of correspondence between the model simulation and observations of the ground water flow system.
- (4) "Certified professional geologist" means a professional geologist certified by the state of Indiana under IC 25-17.6-1.
- (5) "Community public water supply system" or "CPWSS" means a public water supply system that serves at least fifteen (15) service connections used by year-round residents or regularly serves at least twenty-five (25) year-round residents.
- (6) "Conceptual model" means a description of the hydrogeologic system that represents the movement of ground water, for example:
  - (A) geologic and hydrologic framework;
  - (B) media type;
  - (C) physical processes;
  - (D) hydraulic properties; and
  - (E) water budget.
- (7) "Confined aquifer" means an aquifer in which ground water is confined under pressure that is signifi-

cantly greater than atmospheric pressure.

(8) "Critical water users" means water users whose immediate health or welfare would be affected in an adverse manner if water use is denied.

(9) "Customers" means number of persons served by the public water supply system.

(10) "Delineation" means a process used to define boundaries of the wellhead protection area.

(11) "Department" means the department of environmental management created under IC 13-13-2.

(12) "Emergency condition" means a condition related to ground water contamination which threatens to disrupt water supply service from a community public water supply system wellfield.

(13) "Hydrogeology" means the study of the geology of ground water, with particular emphasis on the chemistry and movement of water.

(14) "Hydrostratigraphic unit" means a grouping of geologic units of similar hydrogeologic properties, for example, aquifers and confining units.

(15) "Large community public water supply system" means a public water supply system serving greater than fifty thousand (50,000) customers.

(16) "Medium community public water supply system" means a public water supply system serving from three thousand three hundred one (3,301) up to and including fifty thousand (50,000) customers.

(17) "Model" means an investigative technique using a mathematical or physical representation of a system or theory that accounts for all or some of its known properties.

(18) "Pesticide review board" means the Indiana pesticide review board created by IC 15-3-3.5 to collect, analyze, and interpret information on matters relating to the use of pesticides.

(19) "Potential source of contamination" means a facility, site, practice, or activity that possesses the ability to contaminate ground water.

(20) "Public water supply system" or "PWSS" means a public water supply for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen (15) service connections or regularly serves of at least twenty-five (25) individuals daily at least sixty (60) days out of the year. The term includes any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system and any collection or pretreatment storage facilities not under such control that are used primarily in connection with such system.

(21) "Qualified ground water scientist" means an individual who possesses a bachelor's degree or higher

in the physical sciences, for example, geology or engineering, with a sufficient level of experience to make sound professional judgments regarding site characterization and hydrogeology. This level of experience may be demonstrated by certification or registration as a professional geologist or engineer, either of whom shall have education or professional experience in hydrogeology or ground water hydrology.

(22) "Sanitary setback" means an area established around a CPWSS production well to protect ground water from direct contamination.

(23) "Small community public water supply system" means a public water supply system serving up to and including three thousand three hundred (3,300) customers.

(24) "State chemist" means the office of the Indiana state chemist authorized by IC 15-3-3.5 and IC 15-3-3.6 to administer the use, application, storage, mixing, loading, transportation, and disposal of pesticides in Indiana under those chapters.

(25) "Time of travel" or "TOT" means the calculated length of time a particle of water takes to reach a CPWSS production well from a certain point.

(26) "Time of travel (TOT) threshold" means a threshold determined by the community or CPWSS to suit the hydrogeologic conditions and needs of the community; however, a minimum five (5) year TOT for modeled wellhead protection areas and three thousand (3,000) feet for fixed radius wellhead protection area is allowed.

(27) "Wellhead protection area" or "WHPA" means the surface and subsurface area, delineated by fixed radius, hydrogeological mapping, analytical, semianalytical, or numerical flow/solute transport methods, which contributes water to a CPWSS production well or wellfield and through which contaminants are likely to move through and reach the well within a specified period.

(28) "Wellhead protection program" or "WHPP" means a program to sustain drinking water quality in ground waters that supply public water supply wells and wellfields. The program is mandated by the 1986 amendments to the federal Safe Drinking Water Act, Title II, Section 205, Subsection 1428.

(29) "Well log" means a drilling record that describes the subsurface formations that have been drilled through and gives details of well completion as required by IC 25-39-4 and 310 IAC 16-2-6 [310 IAC 16 was repealed filed Nov 22, 1999, 3:34 p.m.: 23 IR 776. See 312 IAC 13.].

(*Water Pollution Control Board; 327 IAC 8-4.1-1; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1723; filed Mar 6, 2000,*

*7:56 a.m.: 23 IR 1627; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-4.1-2 Applicability of rule**

**Authority:** IC 13-14-8; IC 13-18-3; IC 13-18-17-6

**Affected:** IC 13-11; IC 13-13; IC 13-18

Sec. 2. The WHPP is required for each well or wellfield providing ground water to a CPWSS. (*Water Pollution Control Board; 327 IAC 8-4.1-2; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1724; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-4.1-3 Enforcement**

**Authority:** IC 13-14-8; IC 13-18-3; IC 13-18-17-6

**Affected:** IC 13-11; IC 13-14-2; IC 13-30

Sec. 3. This rule may be enforced through administrative or judicial proceedings under IC 13-30-3 and the penalty provisions of IC 13-14-2, IC 13-30-4, and IC 13-30-6. (*Water Pollution Control Board; 327 IAC 8-4.1-3; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1724; errata filed Jun 25, 1997, 3:55 p.m.: 20 IR 3016; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-4.1-4 Local planning teams**

**Authority:** IC 13-14-8; IC 13-18-3; IC 13-18-17-6

**Affected:** IC 13-11; IC 13-13; IC 13-18

Sec. 4. (a) The CPWSS shall coordinate and form or participate in a local planning team (LPT) to guide the development and implementation of the CPWSS's WHPP.

(b) The local planning team must have representation of parties that may be affected by the development and implementation of the WHPP.

(c) The CPWSS must public notice the formation of a local planning team in the newspaper of largest general circulation within the area where the LPT is being formed. (*Water Pollution Control Board; 327 IAC 8-4.1-4; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1724; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-4.1-5 Criteria for selecting the delineation method for determining the wellhead protection area**

**Authority:** IC 13-14-8; IC 13-18-3; IC 13-18-17-6

**Affected:** IC 13-11; IC 13-13; IC 13-18; IC 14-25-7

Sec. 5. (a) During Phase I of the WHPP, the CPWSS must delineate the WHPA using one (1) of the five (5) accepted methods of delineation.

(b) Any CPWSS may use the following methods:

(1) The analytical method.

- (2) The numerical flow/solute transport model methods.
- (3) The semianalytical method.

(c) A CPWSS may use the hydrogeologic mapping method as set out in the “Guidelines for Delineation of Wellhead Protection Areas”<sup>\*</sup> as the sole method of delineation with prior approval from the department.

(d) A CPWSS may use the fixed radius method after receiving prior approval from the department. Approval to use the fixed radius method is based on either of the following criteria:

(1) A CPWSS does not qualify as a significant water withdrawal facility (in accordance with IC 14-25-7).

(2) A CPWSS qualifies as a significant water withdrawal facility, in accordance with IC 14-25-7, and the average daily withdrawal is less than one hundred thousand (100,000) gallons per day demonstrated by:

(A) submittal of annual total pumping data for the previous five (5) years of operation to the department; and

(B) statistical determination by the department of an upper confidence interval of one hundred thousand (100,000) gallons per day or less by the following formula:

$$x = t_{(0.95, n-1)}(S/n^{1/2})$$

x = Mean of pumping data

S = Standard deviation of pumping data

$t_{(0.95, n-1)}$  = t statistic at 95%, n degrees of freedom

n = Number of observations

(e) Upon selecting and carrying out a delineation method, a CPWSS must submit justifying data in accordance with section 8 of this rule.

(f) All delineation methods available to CPWSSs for defining the WHPA are outlined within “Guidelines for Delineation of Wellhead Protection Areas”<sup>\*</sup>.

(g) Site characterization and WHPA delineation, using either the modeling methods, described in subsection (b), or hydrogeological mapping methods described in subsection (c), must be performed by a qualified ground water scientist.

<sup>\*</sup>“Guidelines for Delineation of Wellhead Protection Areas”, United States Environmental Protection Agency, Office of Ground Water Protection, Washington, D.C. 20460, June 1987, EPA Publication No. 440/5-93-001. Copies of “Guidelines for Delineation of Wellhead Protection Areas” are available at the Indiana Department of Environmental Management, Office of Water Management, Drinking Water Branch, Ground Water Section, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana 46206-6015. (*Water Pollution Control Board; 327 IAC 8-4.1-5; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1724; errata filed Jun 25, 1997, 3:55 p.m.: 20 IR 3016; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 8-4.1-6 Map requirements

Authority: IC 13-14-8; IC 13-18-3; IC 13-18-17-6

Affected: IC 13-11; IC 13-13; IC 13-18

Sec. 6. (a) All maps required by this rule, except topographic maps, must be drawn to a scale between 1" = 400' and 1" = 1,000'.

(b) All topographic maps required by this rule must be United States Geological Survey (USGS) seven and one-half (7.5) minute series. (*Water Pollution Control Board; 327 IAC 8-4.1-6; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1725; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 8-4.1-7 Delineation

Authority: IC 13-14-8; IC 13-18-3; IC 13-18-17-6

Affected: IC 13-11; IC 13-13; IC 13-18; IC 14-25-7

Sec. 7. (a) If a CPWSS delineates the WHPA using a model, a report with a narrative description of the regional hydrogeologic setting, the conceptual model, and modeling efforts must be submitted. The report must include the following:

(1) Analysis of hydrogeologic setting and the conceptual model including the following:

(A) Map of the area of interest.

(B) Review of published hydrogeologic and geologic interpretations over the area of interest.

(C) Geologic cross sections showing the following:

(i) Hydrostratigraphic units.

(ii) Water levels.

(iii) Relationship of surface water bodies to the hydrostratigraphic units.

(iv) Pumping wells with screened intervals.

(D) Well logs and records used in cross section development. If the number of well logs used in cross section development is greater than fifty (50), the maximum number of well logs submitted to represent the cross section(s) may be negotiated with the department.

(E) A map that illustrates over the area of interest the following:

(i) Location of CPWSS wells.

(ii) Location of high capacity wells registered as significant water withdrawal facilities as defined in IC 14-25-7.

(iii) Surface water features.

(iv) Thickness and extent of hydrostratigraphic units.

(v) Regional water levels.

(vi) Bedrock topography.

(F) Summary of raw data used in the development of the conceptual model.

- (G) Discussion of hydrogeologic parameters.
- (H) Discussion of the ground water flow system, including the following:
  - (i) Distribution of recharge.
  - (ii) Current CPWSS pumping rates and planned changes in pumping rates.
  - (iii) Pumping rates of neighboring high capacity wells.
- (2) Presentation and discussion of the modeling effort must include the following:
  - (A) The rationale for delineation method selection.
  - (B) A tabulated summary of the model input parameters showing the range over which the parameters were varied.
  - (C) An example input file.
  - (D) A map showing the following:
    - (i) The domain of the modeled area within the area of interest.
    - (ii) Location of any boundary conditions used.
    - (iii) Calibration target locations if used.
    - (iv) Modeled potentiometric surfaces.
    - (v) Resultant WHPA boundaries.
  - (E) Discussion of the following:
    - (i) Assumptions used in the modeling effort.
    - (ii) Changes made to initial conditions.
    - (iii) Calibration analysis if used.
    - (iv) Water budget of the model if available.
    - (v) Effects of uncertainty in input parameters and boundary conditions on modeled WHPA boundaries.
- (b) A CPWSS that, after approval from the department, delineates the WHPA using the fixed radius method must submit the following data to the department:
  - (1) A map depicting the following:
    - (A) The wellhead protection area boundary.
    - (B) The CPWSS pumping well locations.
    - (C) The location of wells in the area registered as significant water withdrawal facilities as defined in IC 14-25-7.
  - (2) A topographic map of the area.
  - (3) Well logs for the CPWSS pumping well.
  - (c) A CPWSS that delineates the WHPA using the hydrogeologic mapping method must submit data as set out in the "Guidelines for Delineation of Wellhead Protection Areas"\* and agreed to by the department and the CPWSS.

\*"Guidelines for Delineation of Wellhead Protection Areas", United States Environmental Protection Agency, Office of Ground Water Protection, Washington, D.C. 20460, June 1987, EPA Publication No. 440/5-93-001. Copies of "Guidelines for Delineation of Wellhead Protection Areas" are available at the Indiana Department of Environmental Management, Office of Water Man-

agement, Drinking Water Branch, Ground Water Section, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana 46206-6015. (*Water Pollution Control Board; 327 IAC 8-4.1-7; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1725; errata filed Jun 25, 1997, 3:55 p.m.: 20 IR 3016; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 8-4.1-8 Phase I submittal requirements

**Authority:** IC 13-14-8; IC 13-18-3; IC 13-18-17-6

**Affected:** IC 9-21-2; IC 9-21-3; IC 13-11; IC 13-13; IC 13-18; IC 15-3-3.5; IC 15-3-3.6; IC 25-31; IC 25-39-4-6

Sec. 8. To have Phase I of a WHPP approved by the department, a CPWSS must submit the following material as prescribed in section 16 of this rule:

- (1) The names and affiliations of the members of the local planning team, as well as any subcommittees designated by the local planning team.
- (2) A complete WHPA delineation as described in section 7 of this rule. Items submitted in compliance with section 7(a)(1)(C), 7(a)(1)(E)(iv), 7(a)(1)(E)(vi), and 7(c) of this rule must be performed by or under the supervision of a certified professional geologist and bear his/her seal. Items submitted in compliance with section 7(a)(1)(C), 7(a)(1)(E)(iv), 7(a)(1)(E)(vi), and 7(c) of this rule are exempt from certification by a certified professional geologist when performed by:
  - (A) an officer or employee of the United States government, state government, or local government while engaged in providing geological services for the officer's or employee's employers;
  - (B) a person engaged solely in geological research or instruction of geology; or
  - (C) a professional engineer registered under IC 25-31 who applies geology to the practice of engineering.
- (3) An inventory of potential sources of contamination containing a complete list of existing facilities, sites, practices, and activities for both regulated and unregulated potential sources of contamination. The inventory of potential sources of contamination must be submitted in the following forms:
  - (A) A narrative description of land use within the WHPA.
  - (B) A land use map with potential sources of contamination plotted, showing their locations relative to the WHPA boundaries.
  - (C) A table containing information describing the potential sources of contamination, including the following:
    - (i) Facility identification number (cross-referenced to clause (B)).
    - (ii) Facility name and location.

- (iii) Site description.
  - (iv) Any environmental permits issued for the site, including number and agency issuing the permit.
  - (v) Types of contaminants at site.
  - (vi) Operating status of site.
- (4) A management plan that must include the following:
- (A) A plan to manage the sanitary setback area that includes the following:
    - (i) Measures for the management of the area, consistent with the requirements of 327 IAC 8-3.
    - (ii) Measures to prohibit the storage and mixing of chemicals, other than:
      - (AA) those used for drinking water treatment; or
      - (BB) pesticides that are regulated by the pesticide review board through IC 15-3-3.5 and IC 15-3-3.6.
    - (iii) Provisions to secure the wellhead to prevent unauthorized access.
    - (iv) Guidelines that employ best management practices for transportation routes within the sanitary setback area.
  - (B) A plan to manage the WHPA that addresses the following:
    - (i) Management or monitoring measures for all potential sources of contamination as identified in subdivision (3) to effectively protect the ground water and drinking water supply. The management or monitoring measures must consider the locations and type of potential sources of contamination and hydrogeologic characteristics of the WHPA.
    - (ii) Compliance of CPWSS production wells with state construction standards and permit requirements under 327 IAC 8-3 and 310 IAC 16 [310 IAC 16 was repealed filed Nov 22, 1999, 3:34 p.m.: 23 IR 776. See 312 IAC 13.].
    - (iii) Monitoring for contaminants associated with identified potential sources of contamination according to the department's standardized monitoring framework under 327 IAC 8-2.
    - (iv) Methods or procedures for maintaining and updating records concerning changes to potential sources of contamination within the WHPA.
    - (v) Identification of abandoned wells not in compliance with IC 25-39-4-6 and 310 IAC 16-10 [310 IAC 16 was repealed filed Nov 22, 1999, 3:34 p.m.: 23 IR 776. See 312 IAC 13.].
    - (vi) Use, application, storage, mixing, loading, transportation, and disposal of pesticides in accordance with IC 15-3-3.5, IC 15-3-3.6, and the rules and guidance thereunder, developed by the pesticide review board and the state chemist.
    - (vii) Notification of property owners, mineral

owners and leaseholders of record that they are located within a WHPA.

- (viii) Provide owners and operators of identified potential sources of contamination access to a copy of the local WHPP.
  - (ix) The establishment of a public outreach program to educate the public and owners or operators of identified potential sources of contamination about the consequences of ground water contamination, and the methods available for preventing ground water contamination.
  - (x) The posting of wellhead protection signs along major thoroughfares at the perimeter of the WHPA.
  - (xi) Other management measures required to comply with this section.
- (5) A contingency plan to provide safe drinking water in emergency conditions must include the following:
- (A) Description of plan to train local responders.
  - (B) Description of emergency response to leaks, spills, or illegal discharges.
  - (C) A list of information to be provided to local responders, including the following:
    - (i) Location of WHPA boundaries.
    - (ii) CPWSS operators to contact during an emergency.
    - (iii) A twenty-four (24) hour telephone number for the following:
      - (AA) IDEM, office of emergency response.
      - (BB) State, local, and city/county police.
      - (CC) State, local, and city/county fire/hazmat team.
      - (DD) City or county disaster services agency.
      - (EE) Water supply owner, superintendent, and operator.
      - (FF) City or county hospital.
  - (D) Identification and description of potential alternate sources of water.
  - (E) Identification of procedures and description of methods to notify critical water users of an emergency.
  - (F) The posting of procedures to follow in an emergency and information on the location and availability of the complete contingency plan.
- (Water Pollution Control Board; 327 IAC 8-4.1-8; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1726; errata filed Jun 25, 1997, 3:55 p.m.: 20 IR 3016; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-4.1-9 Phase II submittal requirements**

**Authority:** IC 13-14-8; IC 13-18-3; IC 13-18-17-6

**Affected:** IC 13-11; IC 13-13; IC 13-18

Sec. 9. To have Phase II of a WHPP approved by the

department, a CPWSS must submit the following material within the time frame prescribed in section 16 of this rule:

- (1) Phase II delineation must include the following:
  - (A) An updated Phase I submittal reflecting changes, if any.
  - (B) A discussion describing how the updated WHPA compares with the previously delineated WHPA.
- (2) Phase II potential sources of contamination inventory must include an update to the source inventory provided in the Phase I submittal.
- (3) Phase II management plan must include the results of the implementation of Phase I management plan.
- (4) Phase II contingency plan must include documentation of training given to local responders.

*(Water Pollution Control Board; 327 IAC 8-4.1-9; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1727; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-4.1-10 Department review of Phase I and Phase II submittal requirements**

**Authority:** IC 13-14-8; IC 13-18-3; IC 13-18-17-6  
**Affected:** IC 13-11; IC 13-13; IC 13-18

Sec. 10. (a) The department shall review Phase I and Phase II submittals based on the following criteria:

- (1) WHPA delineation, including the following:
  - (A) The completeness and accuracy of the data used to determine the hydrogeologic conceptualization as required in section 7 of this rule.
  - (B) The information provided in the submittal demonstrates that the chosen delineation method properly accounts for site specific hydrogeology.
- (2) Potential sources of contamination inventory, including the following:
  - (A) The completeness of the specific data supplied regarding each facility, site, practice, and activity, including the following:
    - (i) The inventory, identification, and location of all potential sources of contamination according to the data requirements of section 8(3) of this rule.
    - (ii) Identification of all potential sources of contamination in the WHPA on a map that includes the boundaries of the time of travel.
    - (iii) Characterization of the potential sources of contamination as specified in section 8(3)(C) of this rule is sufficient to develop a management plan as prescribed by section 8(4)(A) and 8(4)(B) of this rule.
  - (B) The department shall evaluate Phase II based on the completeness of the update to adequately characterize the status of all potential sources of contami-

nation identified and inventoried under Phase I, and any new potential sources of contamination that have located within the WHPA.

(C) The department shall evaluate the updates made to the potential sources of contamination inventory every five (5) years, as required by section 9(2) of this rule, for completeness with respect to the status of all potential sources of contamination identified in the Phase I and Phase II submittals.

- (3) Management plan including the following:
  - (A) The Phase I management plan will be considered effective when all management plans and submittal requirements of section 8(4)(A) and 8(4)(B) of this rule and subdivision (1) have been met. The management plan must consider the following:
    - (i) Site-specific hydrogeology.
    - (ii) Land use.
    - (iii) Conditions of potential sources of contamination.
  - (B) The department will approve Phase II, results of implementation of Phase I, upon finding that the management plan has been implemented as proposed under section 8(4)(B) of this rule.

(b) Under Phase I, the department may require the use of a different delineation method. Under both Phase I and Phase II, the department may require submittal of additional data to support information provided as part of the WHPP.

(c) For a CPWSS using the fixed radius method to delineate a WHPA, the department may require the use of a different delineation method if the CPWSS fails to maintain the qualification for use of the fixed radius method as outlined in section 5(d) of this rule. *(Water Pollution Control Board; 327 IAC 8-4.1-10; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1727; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-4.1-11 Tracking of potential sources of contamination inventory and management plan**

**Authority:** IC 13-14-8; IC 13-18-3; IC 13-18-17-6  
**Affected:** IC 13-11; IC 13-13; IC 13-18

Sec. 11. (a) The department shall track Phase I accomplishments by mailing two (2) surveys to each CPWSS as follows:

- (1) The first survey shall be mailed two (2) years, and the second shall be mailed one (1) year, prior to the deadline for Phase I submittal for a large CPWSS.
- (2) The first survey shall be mailed two and one-half (2½) years, and the second survey shall be mailed one (1) year, prior to the deadline for Phase I submittal, for a medium CPWSS.

(3) The first survey shall be mailed three (3) years, and the second survey shall be mailed one (1) year, prior to the deadline for Phase I submittal, for a small CPWSS.

(b) The department shall track Phase II progress by sending an additional survey, that includes an update of the potential sources of contamination inventory, to each CPWSS two (2) years before the Phase II requirements must be submitted to the department as follows:

(1) The survey shall be mailed three (3) years after the department's approval of the Phase I submittal for a large CPWSS.

(2) The survey shall be mailed five (5) years after the department's approval of the Phase I submittal for a medium CPWSS.

(3) The survey shall be mailed eight (8) years after the department's approval of the Phase I submittal for a small CPWSS.

(c) Continued tracking of management plans will begin five (5) years after the department's approval of the Phase II submittal and will continue in five (5) year cycles as long as the CPWSS is in operation.

(d) Any CPWSS that has not applied for approval of the WHPP within the designated period set forth in section 16 of this rule will be considered in noncompliance.

(e) All surveys must be completed and submitted to the department within forty-five (45) days of receipt. (*Water Pollution Control Board; 327 IAC 8-4.1-11; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1728; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-4.1-12 Submittal requirements for proposed new wells**

**Authority:** IC 13-14-8; IC 13-18-3; IC 13-18-17-6

**Affected:** IC 13-11; IC 13-13; IC 13-18

Sec. 12. (a) For a proposed well site in a department approved Phase I or Phase II WHPP, with the proposed well included in the WHPA delineation, the CPWSS shall apply for a construction permit, as provided for in 327 IAC 8-3, and shall describe the proposed well site in relation to the approved WHPA.

(b) For a proposed well site in a department approved Phase I or Phase II WHPP, with the proposed well not included in the WHPA delineation, the CPWSS shall apply for a construction permit as provided for in 327 IAC 8-3, and shall submit new well site submittal requirements as described in section 13 of this rule.

(c) For a proposed well site in a wellfield not in a department approved Phase I or Phase II WHPP, the CPWSS must apply for a construction permit as provided for in 327 IAC 8-3, and shall submit new well site submittal requirements as described in section 13 of this

rule. (*Water Pollution Control Board; 327 IAC 8-4.1-12; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1728; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-4.1-13 New well site submittal requirements**

**Authority:** IC 13-14-8; IC 13-18-3; IC 13-18-17-6

**Affected:** IC 13-11; IC 13-13; IC 13-18

Sec. 13. (a) All CPWSSs subject to this rule must receive approval for a new well site and shall submit the following:

(1) A United States Geological Survey seven and one-half (7.5) minute series topographic map illustrating the area surrounding the well and proposed well site.

(2) A detailed map, drawn to a scale between 1" = 400' and 1" = 1,000', showing the following:

(A) Proposed well site with ownership or easement boundaries.

(B) The location of the proposed well.

(C) The sanitary setback area.

(3) A WHPA delineated using the following:

(A) Fixed radius method, with a radius of three thousand (3,000) feet, regardless of the pumping capacity of the system.

(B) An analytical, semianalytical, or numerical model, executed by a qualified ground water scientist, using input parameters calculated from:

(i) regional data from published reports; or

(ii) site-specific data.

(C) Any approved method described in section 5 of this rule.

(4) A potential sources of contamination inventory performed by methods outlined in section 8(3) of this rule.

(5) A summary of geologic and ground water quality information for the aquifer system utilized by a proposed well, where available.

(6) A schedule for the development of a Phase I WHPP.

(b) Approval of a CPWSS proposed well site is dependent on the ability of each CPWSS to provide safe drinking water, as determined by the department under 327 IAC 8-2.

(c) To maintain well site approval status, the CPWSS must meet the following requirements:

(1) Allow no new potential sources of contamination to locate within the sanitary setback area.

(2) The CPWSS is operated in such a manner that it will not violate any sanitary or health regulations or requirements.

(3) Maintenance of additional requirements specified by the CPWSS construction permit.

(Water Pollution Control Board; 327 IAC 8-4.1-13; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1729; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)

**327 IAC 8-4.1-14 Well site denial criteria**

Authority: IC 13-14-8; IC 13-18-3; IC 13-18-17-6  
 Affected: IC 13-11; IC 13-13; IC 13-18

Sec. 14. The department may deny a well site if:  
 (1) a source of chemical or pathogenic contamination is found within the sanitary setback area that is so severe that it cannot be consistently treated or managed to a level considered safe by standards under 327 IAC 8-2; or  
 (2) a chemical or pathogenic contaminant reported in the ground water quality information submitted under section 13(b)(6) of this rule is so severe that it cannot be consistently treated or managed to a level considered safe by standards under 327 IAC 8-2.

(Water Pollution Control Board; 327 IAC 8-4.1-14; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1729; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)

**327 IAC 8-4.1-15 Alternative approaches to WHPP**

Authority: IC 13-14-8; IC 13-18-3; IC 13-18-17-6  
 Affected: IC 13-11; IC 13-13; IC 13-18

Sec. 15. (a) The department may approve alternate approaches to section 8(4)(A) of this rule upon a showing that water from a well or wellfield providing ground water to a CPWSS exceeds the standard for conventional ground water treatment as set forth in 327 IAC 8-2.

(b) In reviewing the alternative management plan under this section, the department shall consider whether the proposed alternative management plan will result in the consistent provision of finished water in compliance with 327 IAC 8-2. (Water Pollution Control Board; 327 IAC

8-4.1-15; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1729; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)

**327 IAC 8-4.1-16 Community public water supply systems submittal deadlines; department approval deadlines**

Authority: IC 13-14-8; IC 13-18-3; IC 13-18-17-6  
 Affected: IC 13-11; IC 13-13; IC 13-18

Sec. 16. (a) Each CPWSS must submit all materials required by this rule as follows: (See Table 1 in subsection (c).)

- (1) Phase I submittals are as follows:
  - (A) All materials must be submitted within three (3) years for large CPWSS.
  - (B) All materials must be submitted within four (4) years for medium CPWSS.
  - (C) All materials must be submitted within five (5) years for small CPWSS.
- (2) Phase II submittals are as follows:
  - (A) All materials must be submitted within five (5) years after department approval of Phase I material for large CPWSS.
  - (B) All materials must be submitted within seven (7) years after department approval of Phase I material for medium CPWSS.
  - (C) All materials must be submitted within ten (10) years after department approval of Phase I material for small CPWSS.
- (b) The department will approve or disapprove the materials submitted within one hundred eighty (180) days after submission.
- (c) The wellhead protection overview shall be as follows:

Table 1 - Wellhead Protection Overview

		PHASE I	PHASE II	
Public Water Supply System Size (population served)	Submittal Time (years)	Submittal Requirements	Submittal Time from Phase I Approval (years)	Submittal and Update Requirements

Large >50,001	3	1. Names, roles, and affiliation of the local planning team members. 2. WHPA delineation, including: A. Summary of geologic and hydrologic condition of the WHPA. B. Model input data. C. Justification of model choice. 3. Potential sources of contamination inventory. 4. Management strategy with schedule for implementation. 5. Contingency plan. 6. Description of public participation. 7. Description of public education program.	5	1. Comprehensive WHPP. 2. Updated schedule of implementation. 3. Updated WHPA, considering new data if any. 4. Updated potential sources of contamination inventory. 5. Report of any problems or concerns regarding WHPP. 6. Contingency plan revisions (if needed). 7. Documentation to confirm: A. Sanitary Setback Area meets requirements. B. Abandoned wells are identified. C. Wellhead is secured from unauthorized access. D. All potential sources of contamination within the WHPA are managed. E. Signs are posted at WHPA perimeter. F. Public education is ongoing. G. Any new ground water contamination within the WHPA is reported.
Medium 3,301 to 50,000	4		7	
Small ≤3,300	5		10	

(Water Pollution Control Board; 327 IAC 8-4.1-16; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1729; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)

**Rule 5. Construction of Public Water Supply Systems Under Order of the DEM**

327 IAC 8-5-1 Construction of public water supply system; hearing

**327 IAC 8-5-1 Construction of public water supply system; hearing**

Authority: IC 13-7-7-5; IC 13-7-14-5  
 Affected: IC 13-7-7-5; IC 13-7-14-5

Sec. 1. (a) Whenever investigation by the commissioner shall show that the lack of proper or adequate public water supply system, in an incorporated city or town, results in insanitary conditions, or conditions causative of disease, and that the construction of a public water supply system, will abate, and is a practical method to abate such conditions, said incorporated city or town shall, upon receipt of an official order from the commissioner, immediately proceed to construct, cause to be constructed, or allow to be constructed, a public water supply system, including a source of supply, distribution lines and other necessary appurtenances, sufficient to abate the insanitary conditions causative of disease and to protect the public health.

(b) Provided, that such official order shall not be issued by the commissioner until after an opportunity for a hearing has been given to the proper officials of such incorporated city or town, at which hearing the facts as shown by the investigation made by the commissioner shall be presented to said officials. (Water Pollution Control Board; 327 IAC 8-5-1; filed Sep 24, 1987, 3:00

pm: 11 IR 711; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)

**Rule 6. Improvements of Public Water Supply Systems or Treatment Works Under Order of the DEM**

327 IAC 8-6-1 Improvements required in public water supply system or treatment works

**327 IAC 8-6-1 Improvements required in public water supply system or treatment works**

Authority: IC 13-7-7-5; IC 13-7-14-5  
 Affected: IC 13-7-7-5; IC 13-7-14

Sec. 1. (a) Whenever investigation by the commissioner shall show any public water supply system, or water treatment works, or any part thereof to be inadequate, or to be improperly located, constructed or operated, and by reason thereof to be causative of disease, or that the water obtained therefrom fails to meet the drinking water standards of 327 IAC 8-2, the person, firm, corporation or municipally [sic.] owning and/or operating said public water supply system or water treatment works, upon receipt of an official order from the commission, shall proceed within such time as is therein provided to carry out such changes, extensions or improvements, or to institute such changes in the methods of operation of said public water supply system or water treatment works as may be necessary to abate such conditions.

(b) Any order of the commissioner shall be a written order and shall establish a time within which the steps contemplated in said order shall be carried out.

(c) Provided, that such official order shall not be issued by the commissioner until an opportunity for a hearing has been given to the person, firm, corporation or municipality owning and/or operating said public water supply system or water treatment works, at which hearing the facts as shown by the investigation made by said commissioner shall be presented to said person, firm, corporation or municipality. Notice of such hearing shall be given not less than ten (10) days prior to the date set for said hearing. (*Water Pollution Control Board; 327 IAC 8-6-1; filed Sep 24, 1987, 3:00 pm: 11 IR 712; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**Rule 7. Water Supply and Distribution Systems; School Buildings and Related Facilities (*Repealed*)**  
(*Repealed by Water Pollution Control Board; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3379*)

**Rule 8. Water Supply and Distribution Systems; Mobile Home Parks (*Repealed*)**  
(*Repealed by Water Pollution Control Board; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3379*)

**Rule 9. Water Supply and Distribution Systems; Agricultural Camps (*Repealed*)**  
(*Repealed by Water Pollution Control Board; filed Jun 17, 1999, 1:50 p.m.: 22 IR 3379*)

**Rule 10. Cross Connections; Control; Operation**

327 IAC 8-10-1	Definitions
327 IAC 8-10-2	Cross connection prohibited; bypass
327 IAC 8-10-3	Booster pump connection
327 IAC 8-10-4	Cross connection hazards; notice; exemptions
327 IAC 8-10-5	Secondary sources of supply; installation of air gaps or other devices
327 IAC 8-10-6	Land irrigation facility buried below ground; installation of air gaps or other devices
327 IAC 8-10-7	Construction and installation requirements for air gaps or other devices
327 IAC 8-10-8	Inspection of devices; time limits
327 IAC 8-10-9	Inspectors; reports of inspection or test
327 IAC 8-10-10	Noncompliance; retention of reports; access
327 IAC 8-10-11	Registration of inspectors; list of registered inspectors; list of approved devices
327 IAC 8-10-12	Approval of an organization as a training provider of cross connection control device inspectors; record keeping
327 IAC 8-10-13	Incorporation by reference

### 327 IAC 8-10-1 Definitions

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 1. In addition to the definitions contained in IC 13-11-2 and 327 IAC 1, the following definitions apply throughout this rule:

- (1) "Air gap" means an unobstructed vertical distance through atmosphere between the discharge end of a pipeline supplied from a public water supply and the overflow rim of the receiving portion of the customer water system.
- (2) "Backflow" means the flow of water or contaminants into the public water supply distribution system from a source other than the public water supply.
- (3) "Booster pump" means a pump installed on a pipeline to increase water pressure or flow.
- (4) "Commissioner" means the commissioner of the Indiana department of environmental management, or the commissioner's authorized representative.
- (5) "Cross connection" means any physical arrangement, including cross connection control devices not in working order, whereby a public water supply distribution system is directly connected, either continuously or intermittently, with any secondary source of supply, sewer, drain, conduit, pool, piping, storage reservoir, plumbing fixture, or other device which contains, or may contain, and is capable of imparting to the public water supply, contaminants, contaminated water, sewage, or other waste or liquid of unknown or unsafe quality.
- (6) "Cross connection control device" means any device or assembly, approved by the commissioner for construction on or installation in water supply piping, which is capable of preventing contaminants from entering the public water supply distribution system.
- (7) "Cross connection control device inspector" means a person who has:
  - (A) successfully completed training in testing and inspection of cross connection control devices from a training provider approved by the commissioner;
  - (B) received a registration number from the commissioner; and
  - (C) not been notified by the commissioner that the registration number has been revoked in accordance with section 11(b) of this rule.
- (8) "Cross connection hazard" means any customer facility which, because of the nature and extent of activities on the premises or the materials used in connection with the activities or stored on the premises, would present an immediate or potential danger or health hazard to customers of the public water supply should backflow occur.

(9) “Customer” means any person who receives water from a public water supply.

(10) “Customer service line” means the pipeline from the public water supply to the:

(A) first tap, fixture, receptacle, or other point of customer water use; or

(B) secondary source of supply or pipeline branch in a building.

(11) “Customer water system” means all piping, fixtures, and appurtenances, including secondary sources of supply, used by a customer to convey water on his premises.

(12) “Double check valve assembly” means a device or assembly composed of two (2) tightly closing shut-off valves surrounding two (2) independently acting check valves, with four (4) test cocks, one (1) upstream of the four (4) valves and one (1) between each of the four (4) check and shut-off valves.

(13) “Downstream” means the direction of flow when only the public water supply is supplying water through the customer water system and backflow is not occurring.

(14) “Pressure vacuum breaker” means a device or assembly containing an independently operating internally loaded check valve and an independently operating loaded air inlet valve located on the downstream side of the check valve for relieving a vacuum or partial vacuum in a pipeline.

(15) “Public water system” means a public water supply for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen (15) service connections or regularly serves at least twenty-five (25) individuals daily at least sixty (60) days out of the year. The term includes any collection, treatment, storage, and distribution facilities under control of the operator of such system, and used primarily in connection with such system and any collection or pretreatment storage facilities not under such control that are used primarily in connection with such system.

(16) “Reduced pressure principle backflow preventer” means a device composed of two (2) tightly closing shut-off valves surrounding two (2) independently acting pressure reducing check valves that, in turn, surround an automatic pressure differential relief valve, and four (4) test cocks, one (1) upstream of the five (5) valves and one (1) between each of the four (4) check and shut-off valves. The check valves effectively divide the structure into three (3) chambers; pressure is reduced in each downstream chamber allowing the pressure differential relief valve to vent the center chamber to atmosphere should either or both check valves malfunction.

(17) “Registration number” means a unique number assigned to a person by the commissioner demonstrating that the person has fulfilled the education and examination requirements as described in section 11 of this rule and is recognized by the state as a cross connection control device inspector.

(18) “Secondary source of supply” means any well, spring, cistern, lake, stream, or other water source, intake structure, pumps, piping, treatment units, tanks, and appurtenances used, either continuously or intermittently, to supply water other than from the public water supply to the customer, including tanks used to store water to be used only for firefighting, even though the water contained therein is supplied from the public water supply.

(19) “Supplier of water” means any person who owns or operates a public water supply.

(20) “Training provider” means an organization that conducts or presents a cross connection control device inspector course approved by the commissioner in conformance with section 12 of this rule.

(21) “Upstream” means the direction of flow opposite to downstream.

*(Water Pollution Control Board; 327 IAC 8-10-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 714; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2515; errata filed Aug 30, 1999, 12:06 p.m.: 23 IR 25; filed Mar 6, 2000, 7:56 a.m.: 23 IR 1629; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-10-2 Cross connection prohibited; bypass**

**Authority:** IC 13-7-7-5; IC 13-7-14-5

**Affected:** IC 13-7-7-5; IC 13-7-14-5

Sec. 2. No customer shall cause or allow the construction or maintenance of a cross connection. Piping installed to bypass a cross connection control device constitutes a cross connection unless the bypass piping is also fitted with a similar cross connection control device. *(Water Pollution Control Board; 327 IAC 8-10-2; filed Sep 24, 1987, 3:00 pm: 11 IR 715; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-10-3 Booster pump connection**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 3. No customer shall cause or allow the installation or maintenance of a booster pump in a public water system unless a device is installed to control operation of the booster pump when pressure to pump suction drops as follows:

(1) Wherever a fire suppression system has a booster pump installed only for fire suppression, it shall have

an audible or visual alarm to provide warning when flow occurs and a control valve shall be installed on the booster pump discharge to automatically throttle the flow as necessary to maintain a minimum of ten (10) pounds per square inch, gauge, pump suction pressure.

(2) For all booster pumps other than those described in subdivision (1), a control device shall be installed to either prevent operation of the booster pump, or else to automatically throttle flow to or from the booster pump as necessary to maintain a minimum of twenty (20) pounds per square inch, gauge, pump suction pressure. The supplier of water may require that the control device be calibrated to maintain a higher than twenty (20) pounds per square inch, gauge, pump suction pressure, where necessary to provide a minimum pressure of twenty (20) pounds per square inch, gauge, throughout the pressure zone of the public water system distribution system to which the customer is connected.

*(Water Pollution Control Board; 327 IAC 8-10-3; filed Sep 24, 1987, 3:00 p.m.: 11 IR 715; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2516; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-10-4 Cross connection hazards; notice; exemptions**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 4. (a) Wherever a cross connection hazard as specified by subsection (c) is designated:

(1) an air gap shall be constructed or a reduced pressure principle backflow preventer shall be installed, in accordance with section 7 of this rule, on the customer service line for:

- (A) any new facility;
- (B) any modified customer service line; or
- (C) any existing facility where a higher capacity meter is installed; and

(2) neither an air gap nor a reduced pressure principle backflow preventer shall be required to be incorporated into customer service lines that both are utilized solely for fire suppression and are fitted with an audible alarm that will activate when water is detected to be flowing in the customer service line.

(b) Customers who have a cross connection that has resulted in a contaminant being introduced into a public water system or a customer water system:

(1) shall immediately construct an air gap or install a reduced pressure principle backflow preventer on the customer service line in accordance with section 7 of

this rule; or

(2) is exempt from the requirements of subdivision (1) because the affected customer service line is both utilized solely for fire suppression and is fitted with an audible alarm that will activate when water is detected to be flowing in the line.

(c) The following customer facilities are designated cross connection hazards:

- (1) Aircraft and missile manufacturing plants.
- (2) Automotive plants, including those plants that manufacture motorcycles, automobiles, trucks, recreational vehicles, and construction and agricultural equipment.
- (3) Beverage bottling plants, including dairies and breweries.
- (4) Canneries, packing houses, and reduction plants.
- (5) Car washes.
- (6) Chemical, biological, and radiological laboratories, including those in high schools, trade schools, colleges, universities, and research institutions.
- (7) Hospitals, clinics, medical buildings, autopsy facilities, morgues, other medical facilities, and mortuaries.
- (8) Metal and plastic manufacturing, fabricating, cleaning, plating, and processing facilities.
- (9) Plants manufacturing paper and paper products.
- (10) Plants manufacturing, refining, compounding, or processing fertilizer, film, herbicides, natural or synthetic rubber, pesticides, petroleum or petroleum products, pharmaceuticals, radiological materials, or any chemical that could be a contaminant to the public water supply.
- (11) Commercial facilities that use herbicides, pesticides, fertilizers, or any chemical that could be a contaminant to the public water supply.
- (12) Plants processing, blending, or refining animal, vegetable, or mineral oils.
- (13) Commercial laundries and dye works, excluding coin-operated laundromats.
- (14) Sewage, storm water, and industrial waste treatment plants and pumping stations.
- (15) Waterfront facilities, including piers, docks, marinas, and shipyards.
- (16) Industrial facilities that recycle water.
- (17) Restricted or classified facilities (federal government defense or military installations), or other facilities closed to the supplier of water or to the commissioner.
- (d) Customer facilities not designated as a cross connection hazard by subsection (c) may be designated a cross connection hazard by written notification from the commissioner to the customer and to the customer's public water system. The notice shall specify the nature

of the customer activity that necessitates designation of the customer's facility as a cross connection hazard, and the date by which the customer shall install a cross connection control device in accordance with section 7 of this rule, on the customer service line to the facility so designated.

(e) The commissioner may issue a letter exempting a customer from the requirements of subsection (a) if the customer can show to the satisfaction of the commissioner that the activities taking place at the customer's facility, and the materials used in connection with these activities or stored on the premises, cannot endanger the health of customers of the public water system should backflow occur. An exemption shall remain valid for no more than three (3) years from the date of issuance. If the commissioner finds that the customer facility has become a cross connection hazard, the commissioner will void the exemption and so notify the customer. (*Water Pollution Control Board; 327 IAC 8-10-4; filed Sep 24, 1987, 3:00 p.m.: 11 IR 716; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2516; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-10-5 Secondary sources of supply; installation of air gaps or other devices**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 5. (a) Customers shall construct an air gap or install a reduced pressure principle backflow preventer or a double check valve assembly in accordance with section 7 of this rule, on the customer service line to:

- (1) tanks used only to store water from the public water supply for fire suppression that are constructed to maintain the bacteriological quality of the water, in compliance with 327 IAC 8-2; or
- (2) secondary sources of supply that:
  - (A) use well water as the only private source of supply;
  - (B) are constructed to maintain the bacteriological quality of the water, in compliance with 327 IAC 8-2; and
  - (C) produce, without treatment, water meeting the drinking water quality standards enumerated in 327 IAC 8-2.

(b) Customers shall construct an air gap or install a reduced pressure principle backflow preventer in accordance with section 7 of this rule on the customer service line to or into a facility having a secondary source of supply of a type other than those enumerated in subsection (a), that is used only for fire suppression.

(c) No secondary source of supply of a type other than

those enumerated in subsections (a) and (b) shall be physically connected on the customer service line to or into the facility. (*Water Pollution Control Board; 327 IAC 8-10-5; filed Sep 24, 1987, 3:00 p.m.: 11 IR 716; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2517; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-10-6 Land irrigation facility buried below ground; installation of air gaps or other devices**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 6. Customers shall construct an air gap, or install a reduced pressure principle backflow preventer or pressure type vacuum breaker in accordance with section 7 of this rule, on the water line connecting the public water supply to any land irrigation facility buried below ground that has a sprinkler outlet located less than six (6) inches above grade and is constructed after July 19, 1985. (*Water Pollution Control Board; 327 IAC 8-10-6; filed Sep 24, 1987, 3:00 p.m.: 11 IR 717; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2518; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-10-7 Construction and installation requirements for air gaps or other devices**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2; IC 22-13-2

Sec. 7. (a) The discharge pipe of an air gap shall terminate:

- (1) a minimum of two (2) pipe diameters of the discharge pipe or six (6) inches, whichever is the lesser, above the maximum recorded flood level or above the flood level rim of the receiving vessel, whichever is higher; or
- (2) a minimum of three (3) pipe diameters of the discharge pipe or six (6) inches, whichever is the lesser, above the maximum recorded flood level or above the flood level rim of the receiving vessel, whichever is higher where:
  - (A) a side wall, rib, or similar obstruction is spaced closer than three (3) diameters from the piping affecting the air gap; or
  - (B) two (2) intersecting walls are located closer than four (4) pipe diameters from the piping affecting the air gap.

(b) Only those models of double check valve assemblies, reduced pressure principle backflow preventers, and pressure vacuum breakers that have been listed by

the Foundation for Cross Connection Control and Hydraulic Research of the University of Southern California, August, 27, 1997, or those acceptable under the Indiana plumbing code pursuant to the fire prevention and building safety commission rules at 675 IAC 16-1.2 [675 IAC 16-1.2 was repealed filed Jun 30, 1999, 2:53 p.m.: 22 IR 3414. See 675 IAC 16-1.3.], shall be installed.

(c) Reduced pressure principle backflow preventers shall be installed horizontally with:

- (1) no plug or additional piping affixed to the pressure differential relief valve port; and
- (2) the pressure differential relief valve port a minimum of twelve (12) inches above floor level.

Additionally, the device must be installed at a location where any leakage from the pressure differential relief valve port will be noticed, and that allows access to the valve for maintenance and testing from floor level, without use of a ladder or other similar temporary apparatus, and that will not subject the device to flooding, excessive heat, or freezing.

(d) All double check valve assemblies shall be installed at a location that allows access to the device for maintenance and testing from floor level, without use of a ladder or other similar temporary apparatus, and that will not subject the device to flooding, excessive heat, or freezing.

(e) Pressure vacuum breakers shall be installed as near as possible to the irrigation facility, at a location that allows access to the device for maintenance and testing from floor or ground level, without use of a ladder or other similar temporary apparatus, and that will not subject the device to flooding, excessive heat, or freezing. Additionally, the device must be installed between two (2) tightly closing shut-off valves, with its center line or datum point a minimum of twelve (12) inches above:

- (1) floor level;
- (2) the highest downstream piping or shut-off valve; and
- (3) the highest downstream overflow rim or discharge point.

*(Water Pollution Control Board; 327 IAC 8-10-7; filed Sep 24, 1987, 3:00 p.m.: 11 IR 717; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2518; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-10-8 Inspection of devices; time limits**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 8. (a) The customer shall install and maintain in working order at all times any cross connection control

device or booster pump control device required by this rule.

(b) To ensure that each cross connection control device required by this rule is in working order, the customer shall have each device inspected or tested by a cross connection control device inspector at the time of construction or installation, and at the following intervals, in the following manner:

(1) Air gaps shall be inspected at intervals not exceeding one (1) year to ensure that they continue to meet the requirements of section 7 of this rule.

(2) Reduced pressure principle backflow preventers shall be tested at intervals not exceeding six (6) months to ensure that:

(A) both check valves are drip-tight under all pressure differentials; and

(B) the pressure differential relief valve will maintain pressure in the center chamber at least two (2) pounds per square inch below that of the inlet chamber.

(3) Double check valve assemblies shall be tested at intervals not exceeding one (1) year to ensure that both check valves are drip-tight under all pressure differentials.

(4) Pressure vacuum breakers shall be tested at intervals not exceeding one (1) year to ensure that the air inlet opens fully when water pressure is at or below atmospheric pressure.

(c) The customer shall permit access to the customer's premises by the inspector, the customer's public water system, or the commissioner, at reasonable times, and upon presentation of identification, for inspection of the customer water system or testing of cross connection control devices installed in accordance with this rule.

(d) Those customers granted an exemption in accordance with section 4(e) of this rule shall report to the commissioner and to the supplier of water any proposed change in process, plumbing, or materials used or stored at the exempted facility at least fourteen (14) days prior to making the change. Failure to do so shall void the exemption. *(Water Pollution Control Board; 327 IAC 8-10-8; filed Sep 24, 1987, 3:00 p.m.: 11 IR 717; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2518; errata filed Aug 30, 1999, 12:06 p.m.: 23 IR 25; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 8-10-9 Inspectors; reports of inspection or test**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-16-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 9. (a) All cross connection control device inspec-

tors shall:

- (1) be registered with the commissioner in accordance with section 11 of this rule; and
- (2) submit reports of all inspections as required by subsection (b).

(b) The inspector shall report to the public water system, the customer and, if requested, the commissioner, on a form provided by the commissioner, the results of inspections or tests conducted pursuant to section 8(b) of this rule on air gaps, reduced pressure principle backflow preventers, double check valve assemblies, and pressure vacuum breakers. Reports shall be submitted to the public water system and to the customer within thirty (30) days of the inspection or test. (*Water Pollution Control Board; 327 IAC 8-10-9; filed Sep 24, 1987, 3:00 p.m.: 11 IR 718; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2519; errata filed Aug 30, 1999, 12:06 p.m.: 23 IR 25; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-10-10 Noncompliance; retention of reports; access**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 10. (a) Because cross connections may cause disease through transmission of contaminants via the public water system, the commissioner shall order the public water system to remove the customer service meter or otherwise sever the public water system connection to any customer which the commissioner finds or has reason to believe is in violation of any provision of this rule.

(b) The supplier of water shall retain the three (3) most recent reports of tests conducted on air gaps, reduced pressure principle backflow preventers, double check valve assemblies, and pressure vacuum breakers installed in accordance with this rule. The supplier of water shall permit access to these files at reasonable times and upon presentation of identification by the commissioner.

(c) If so requested, the public water system shall submit to the commissioner copies of any report required to be retained by subsection (b). (*Water Pollution Control Board; 327 IAC 8-10-10; filed Sep 24, 1987, 3:00 p.m.: 11 IR 718; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2519; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 8-10-11 Registration of inspectors; list of registered inspectors; list of approved devices**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 4-21.5; IC 13-11-2; IC 13-13-5-1; IC 13-18-2; IC 13-18-11-8

Sec. 11. (a) Upon reviewing and finding the information certified by the training provider acceptable, the commissioner shall issue a registration number to each person whose training provider has certified that the applicant has met the following requirements of education and examination:

(1) The information supplied by the applicant must be reviewed and acceptable to the training provider.

(2) Each applicant must attend forty (40) hours of education and successfully complete a written and oral examination for cross connection device inspectors administered by a training provider.

(b) The commissioner may revoke the registration of any cross connection control inspector, following a hearing pursuant to IC 4-21.5, when it is found that the inspector has violated any of the provisions set out in this rule or IC 13-18-11-8.

(c) The commissioner shall maintain a list entitled "Indiana Registered Cross Connection Control Device Inspectors, All Inspectors", that is comprised of cross connection control device inspectors registered in Indiana.

(d) The commissioner shall maintain a list entitled "Indiana Registered Cross Connection Control Device Inspectors, Active Inspectors", that is comprised of cross connection control device inspectors that are registered in Indiana in accordance with subsection (a) and who have requested their inclusion on this list in writing to the commissioner during the previous two (2) years.

(e) The commissioner shall maintain a list entitled "List of Approved Backflow Prevention Assemblies, August 27, 1997, Foundation for Cross Connection Control and Hydraulic Research, University of Southern California" that is comprised of a listing of cross connection control devices from the Foundation for Cross Connection Control and Hydraulic Research of the University of Southern California.

(f) The commissioner shall make the following lists as described in this section available to the public upon request:

(1) Indiana Registered Cross Connection Control Device Inspectors, All Inspectors.

(2) Indiana Registered Cross Connection Control Device Inspectors, Active Inspectors.

(3) List of Approved Backflow Prevention Assemblies, August 27, 1997, Foundation for Cross Connection Control and Hydraulic Research, University of Southern California.

(*Water Pollution Control Board; 327 IAC 8-10-11; filed Sep 24, 1987, 3:00 p.m.: 11 IR 718; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2519; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-10-12 Approval of an organization as a training provider of cross connection control device inspectors; record keeping**

**Authority:** IC 13-13-5-1; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3-1; IC 13-18-4-1  
**Affected:** IC 4-21.5; IC 13-11-2; IC 13-18-11-8

Sec. 12. (a) The commissioner shall approve an organization as a training provider of cross connection control device inspectors if the training provider's proposed course meets the following requirements:

(1) The proposed course instruction and examination have a total duration of at least forty (40) hours.

(2) The proposed course deals with matters directly related to the cross connection control devices that include, but are not limited to, the following:

(A) Cross connection identification, degree of hazard, prevention, control devices, and practices.

(B) Backflow prevention assembly field test procedures and gage accuracy verification, Section 9 from the "Manual of Cross Connection Control", ninth edition, 1993, from the Foundation for Cross Connection Control and Hydraulic Research, University of Southern California.

(C) Cross connection control device inspection, repair, and maintenance.

(D) Content, intent, and related policy of this rule.

(E) Responsibilities of the customer, public water system, and cross connection control device inspector.

(3) Each instructor of the proposed course must be recognized by Indiana as a cross connection control device inspector and is qualified by academic work or practical experience directly related to cross connection control device inspection to teach the assigned subject.

(4) Includes both a written and oral examinations proctored by different instructors and meets the following requirements:

(A) A written examination which tests the student's comprehension of the material discussed in subdivision (2).

(B) An oral examination which tests the student's ability and competency to perform inspections, test procedures specified under subdivision (2)(B), and troubleshooting on cross connection control devices.

(5) The organization submits a written request to the commissioner for approval as a training provider of cross connection control device inspectors. The request shall contain the following:

(A) The name, address, and telephone number of the organization, name of the course, specific topics on

which there are to be presentations, time devoted to each topic, and dates and locations where the course will be offered.

(B) All instructor's names, registration numbers, educational backgrounds, professional experiences, and current professional affiliations.

(C) Information to demonstrate fulfillment of the requirements of subdivision (2) to the satisfaction of the commissioner.

(D) A written class outline.

(b) The commissioner's approval of an organization as a training provider of cross connection control device inspectors shall be valid for a duration of five (5) years.

(c) All training providers must maintain records on the date of all courses, the names of all individuals attending the course, duration of the course, all instructor's names, and the program content. These records shall be maintained for five (5) years.

(d) Training providers must submit to the commissioner a record of individuals attending courses within thirty (30) days of the conclusion of the course. These records shall be maintained for a five (5) year period. The record shall contain the following:

(1) Name of course.

(2) Name, address, and current phone number of individual attending course.

(3) Date of course.

(4) Performance on the written and oral examinations required by subsection (a)(4).

(e) The commissioner may revoke the approval of a training provider, following a hearing pursuant to IC 4-21.5, when it is found that the training provider has violated any of the provisions set out in the approval of the training provider's cross connection control device inspectors course, in this rule, or IC 13-18-11-8. (*Water Pollution Control Board; 327 IAC 8-10-12; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2520; errata filed Aug 30, 1999, 12:06 p.m.: 23 IR 25; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 8-10-13 Incorporation by reference**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

**Affected:** IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 13. (a) The following materials, including titles and names and addresses of where they may be located for inspection and copying, are incorporated by reference into this rule:

(1) "List of Approved Backflow Prevention Assemblies, August 27, 1997, Foundation for Cross Connection Control and Hydraulic Research, University of Southern California", Foundation for Cross Connec-

tion Control and Hydraulic Research, University of Southern California, Kaprielian Hall 200, Los Angeles, California 90089-2531 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

(2) Backflow Prevention Assembly Field Test Procedures and Gage Accuracy Verification, Section 9 from the "Manual of Cross Connection Control", ninth edition, 1993, Foundation for Cross Connection Control and Hydraulic Research, University of Southern California, Kaprielian Hall 200, Los Angeles, California 90089-2531 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

(b) The technical standards presented in subsection (a) are continuously revised on a twenty-four (24) month cycle. The commissioner shall commence rulemaking efforts to update the documents incorporated by reference in this section. (*Water Pollution Control Board; 327 IAC 8-10-13; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2521; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **Rule 11. Water Purification and Treatment Works; Operation; Requirements**

327 IAC 8-11-1 Water purification or treatment works; operation; reports; annual operator's certificate

#### **327 IAC 8-11-1 Water purification or treatment works; operation; reports; annual operator's certificate**

**Authority:** IC 13-7-7-5; IC 13-7-14-5

**Affected:** IC 13-7-7-5; IC 13-7-14-5

Sec. 1. (a) All purification or treatment works producing water to be used, or available, for drinking purposes by the public, shall be properly and efficiently operated under the supervision of a competent operator or superintendent.

(b) Weekly reports of operation of such water purification or treatment works shall be submitted by the owner or operator to the commissioner. Such reports of operation shall be submitted on forms to be provided by the commissioner and shall include such items of information as may be found to be necessary by the commissioner.

(c) The commissioner shall issue annually a certificate of qualification to each qualified operator or superinten-

dent in responsible charge of producing or delivering a safe, potable drinking water and may request the same to attend short courses or schools, whenever in the opinion of the commissioner such training is deemed necessary for the protection of the public health. (*Water Pollution Control Board; 327 IAC 8-11-1; filed Sep 24, 1987, 3:00 pm: 11 IR 718; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **Rule 12. Classification of Community Public Water System and Nontransient Noncommunity Public Water System Treatment Plants and Distribution Systems; Examination and Certification of Operators**

- 327 IAC 8-12-0.3 Purpose
- 327 IAC 8-12-0.5 Applicability
- 327 IAC 8-12-1 Definitions
- 327 IAC 8-12-1.1 Responsibilities
- 327 IAC 8-12-2 Classification of water distribution systems and water treatment plants
- 327 IAC 8-12-2.5 Reclassification of water treatment plants and water distribution systems
- 327 IAC 8-12-3 Qualifications of a certified operator
- 327 IAC 8-12-3.2 Certified operator grades
- 327 IAC 8-12-3.4 Grandparenting
- 327 IAC 8-12-3.6 Certified operator in responsible charge
- 327 IAC 8-12-3.8 Certification transition
- 327 IAC 8-12-4 Examination of applicants to become a certified operator of a water treatment plant or water distribution system
- 327 IAC 8-12-5 Certification fees
- 327 IAC 8-12-6 Certification; reciprocity; provisional certificate
- 327 IAC 8-12-7 Certificates and certification cards; renewal; duplicates
- 327 IAC 8-12-7.1 Continuing education credit; criteria for approval
- 327 IAC 8-12-7.5 Continuing education requirements
- 327 IAC 8-12-7.6 Continuing education credit; training provider responsibilities
- 327 IAC 8-12-8 Suspension or revocation of certification

#### **327 IAC 8-12-0.3 Purpose**

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 0.3. (a) The purpose of this rule is to establish the following:

(1) A classification system for community public water system and nontransient noncommunity public water system treatment plants and distribution systems.

(2) The criteria by which a person may become a water treatment plant and water distribution system certified operator.

(b) The intended result of this rule is to ensure that the water treatment plant and water distribution system

operators of:

- (1) community public water systems;
- (2) nontransient noncommunity public water systems;
- (3) transient noncommunity public water systems using surface water or ground water under the direct influence of surface water; and
- (4) transient noncommunity public water systems that employ complex treatment;

are trained, certified, and have knowledge of the public health reasons for drinking water standards thereby providing consumers with a safe drinking water supply. (*Water Pollution Control Board; 327 IAC 8-12-0.3; filed Nov 20, 2000, 4:11 p.m.: 24 IR 972*)

### 327 IAC 8-12-0.5 Applicability

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 0.5. This rule applies to:

- (1) a certified operator who works at;
- (2) a person endeavoring to become a certified operator at; and
- (3) the owner of;

a community public water system, nontransient noncommunity public water system, transient noncommunity public water system using surface water or ground water under the direct influence of surface water, or a transient noncommunity public water system that requires complex treatment. (*Water Pollution Control Board; 327 IAC 8-12-0.5; filed Nov 20, 2000, 4:11 p.m.: 24 IR 973*)

### 327 IAC 8-12-1 Definitions

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-13

**Affected:** IC 13-11-2; IC 13-18-11

Sec. 1. In addition to the definitions contained in IC 13-11-2 and 327 IAC 1, the following definitions apply throughout this rule:

(1) "Acceptable experience" means employment in the actual hands-on operation of a water treatment plant or water distribution system. Experience in water treatment plant maintenance that directly relates to plant operation will be given a maximum of fifty percent (50%) credit for operational experience for those employed solely in this area. Experience in a water treatment plant laboratory that directly relates to plant operation will also be given a maximum of fifty percent (50%) credit for operational experience for those employed solely in this area. Acceptable experience shall be obtained under the supervision of a certified operator or by otherwise demonstrating to the commissioner that the applicant's experience meets the

requirements described by this subdivision.

(2) "Applicant" means a person seeking certification as a water treatment or water distribution system certified operator, whether or not the person is currently employed as an operator.

(3) "Application" means a written request for certification under this rule addressed to the commissioner.

(4) "Automated monitoring" means a continuous monitoring system that will cause an alarm, dialer, or pager to notify a certified operator in cases where a water treatment plant or water distribution system may fail during periods of normal operation.

(5) "Available" means that, based on water treatment or water distribution system size, complexity, and source water quality, a certified operator must be on site or able to be contacted if needed to initiate appropriate action in a timely manner.

(6) "Certificate" means an appropriate document containing the following information:

(A) Affirmation that the named person has fulfilled the requirements, including receiving a passing examination grade, necessary for the operation of the water treatment plant or water distribution system for which application was made.

(B) The water treatment plant or water distribution system classification that may be operated under the issued certificate.

(C) The date of issuance.

(D) An identification number unique to each certificate document.

(7) "Certification card" means a card issued to a person who has fulfilled the requirements to be a water treatment plant or distribution system certified operator and contains the following information:

(A) The name and certificate number of the person.

(B) The classification of the water treatment plant or distribution system that the named person may operate.

(C) An expiration date.

(8) "Certified operator" means a person who has:

(A) met the requirements of this rule;

(B) a valid certificate in a classification identified in section 2 of this rule for water treatment or water distribution operation; and

(C) the ability to make decisions regarding the daily operational activities of a public water system water treatment plant or water distribution system that will directly impact the quality or quantity of the drinking water.

(9) "Certified operator in responsible charge" means a person designated by the owner or governing body of a water treatment plant or water distribution system to be the certified operator who has complete responsibil-

ity for the proper operation of a water treatment plant or water distribution system and makes decisions regarding the daily operational activities of a public water system treatment plant or distribution system that will directly impact the quality or quantity of drinking water from community public water supply systems and nontransient noncommunity public water supply systems.

(10) "Commissioner" means the commissioner of the department of environmental management.

(11) "Contact hour" means a fifty (50) to sixty (60) minute instructional session involving an instructor or lecturer approved by the commissioner. Ten (10) contact hours equals one (1) continuing education unit (CEU) as defined by the National Task Force on the Continuing Education Unit.

(12) "Operating shift" means that period of time during which operator decisions that affect public health are necessary for the proper operation of the system.

(13) "Plant operation" means the time of:

(A) actual production; or

(B) pumping to produce drinking water supply.

(14) "Population served" means the currently accepted population equivalent.

(15) "Training provider" means a person who conducts or presents a course training session approved under section 7.1 of this rule.

*(Water Pollution Control Board; 327 IAC 8-12-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 719; filed Sep 19, 1990, 3:00 p.m.: 14 IR 259; filed Dec 12, 1994, 4:39 p.m.: 18 IR 1230; filed Nov 20, 2000, 4:11 p.m.: 24 IR 973)*

### **327 IAC 8-12-1.1 Responsibilities**

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 1.1. The owner or governing body of a water treatment plant or water distribution system shall be responsible to accomplish the following:

(1) Place each water treatment facility and water distribution system under the direct supervision of a certified operator in responsible charge who:

(A) has a valid certification of a grade eligible for operation at the classification of water treatment facility or water distribution system of responsibility; and

(B) is available to make process control or system integrity decisions about water quality or quantity that affect public health.

(2) Designate one (1) certified operator to have complete responsibility for the proper operation of the water treatment plant or water distribution system.

(3) Assure that a minimum of one (1) operator certified

according to this rule must be available for each operating shift.

(4) Notify the commissioner of the name of the person designated according to subdivision (1) to be the certified operator in responsible charge.

(5) Submit written notice to the commissioner no later than thirty (30) days after the occurrence of one (1) of the following:

(A) A change in the person serving as the certified operator in responsible charge.

(B) A change in conditions or circumstances that were used as the basis for the original classification of the water treatment plant or water distribution system.

*(Water Pollution Control Board; 327 IAC 8-12-1.1; filed Sep 19, 1990, 3:00 p.m.: 14 IR 259; filed Nov 20, 2000, 4:11 p.m.: 24 IR 974)*

### **327 IAC 8-12-2 Classification of water distribution systems and water treatment plants**

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 2. (a) A water distribution system shall be classified in one (1) of three (3) classifications as follows:

(1) Class DSS (distribution system small) includes systems that:

(A) serve a population of less than three thousand three hundred (3,300); and

(B) have no components other than:

(i) pressure tanks; or

(ii) storage tanks.

(2) Class DSM (distribution system medium) includes systems that meet one (1) of the following:

(A) Serve a population greater than or equal to three thousand three hundred one (3,301) but less than or equal to ten thousand (10,000) people and have no mechanical means of movement of water other than one (1) of the following:

(i) Pressure tanks.

(ii) Storage tanks.

(B) Consist of the following:

(i) Pump.

(ii) Storage tanks.

(iii) Booster pumps to storage tanks.

(3) Class DSL (distribution system large) includes systems that meet one (1) of the following:

(A) Serve a population greater than or equal to ten thousand one (10,001) people.

(B) Consist of the following:

(i) Storage tanks.

(ii) Booster pumps to the distribution system.

- (iii) Mechanical devices for movement of water beyond storage.
- (b) A water treatment plant shall be classified in one (1) of six (6) classifications, based on population served and type of treatment, as follows:
  - (1) Class WT 1 includes systems that meet the following:
    - (A) Serve a population less than or equal to five hundred (500) people.
    - (B) Acquire water from one (1) of the following:
      - (i) Ground water.
      - (ii) Purchase.
    - (C) Have one (1) of the following:
      - (i) Ion exchange softening process for cation removal.
      - (ii) Inline filtration device with no chemical treatment.
  - (2) Class WT 2 includes systems with no population limitations that meet the following:
    - (A) Acquire water from one (1) of the following:
      - (i) Ground water.
      - (ii) Purchase.
    - (B) Utilize chemical feed to achieve one (1) of the following:
      - (i) Disinfection.
      - (ii) Fluoride standardization.
      - (iii) Water stabilization.
  - (3) Class WT 3 includes systems that meet the following:
    - (A) Acquire water from one (1) of the following:
      - (i) Ground water.
      - (ii) Purchase.
    - (B) Utilize chemical feed.
    - (C) Have one (1) of the following:
      - (i) Pressure or gravity filtration.
      - (ii) Ion exchange processes if the population served is greater than five hundred one (501).
      - (iii) Lime soda softening.
      - (iv) Reverse osmosis.
  - (4) Class WT 4 includes systems that meet the following:
    - (A) Serve a population less than or equal to ten thousand (10,000) people.
    - (B) Acquire water from one (1) of the following:
      - (i) Surface water.
      - (ii) Ground water under the direct influence of surface water.
  - (5) Class WT 5 includes systems that meet the following:
    - (A) Serve a population greater than ten thousand one (10,001) people.
    - (B) Acquire water from one (1) of the following:
      - (i) Surface water.

(ii) Ground water under the direct influence of surface water.

(6) Class WT 6 includes systems that utilize newly emerging treatment technology not commonly in use for drinking water treatment in Indiana, as determined by the commissioner.

*(Water Pollution Control Board; 327 IAC 8-12-2; filed Sep 24, 1987, 3:00 p.m.: 11 IR 719; filed Sep 19, 1990, 3:00 p.m.: 14 IR 259; filed Dec 12, 1994, 4:39 p.m.: 18 IR 1230; errata filed Mar 9, 1995, 4:15 p.m.: 18 IR 1836; filed Nov 20, 2000, 4:11 p.m.: 24 IR 974)*

### **327 IAC 8-12-2.5 Reclassification of water treatment plants and water distribution systems**

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 2.5. (a) Water treatment plants and water distribution systems will be reclassified by the commissioner if there are changes in the conditions or circumstances upon which the original classification was based.

(b) A water treatment plant or water distribution system may be reclassified by the commissioner if one (1) of the following situations exists:

(1) The treatment plant or water distribution system utilizes:

- (A) special or complex equipment;
- (B) newly emerging treatment technology; or
- (C) features of design requiring a change in operation.

(2) The demonstration of the reliability of new technology.

(3) Change necessitated by law.

(4) The commissioner determines that a new classification is required to protect public health.

(c) Notice of the commissioner's decision according to subsection (a) or (b) to reclassify a water treatment plant or water distribution system shall be given to the governing body or owner and to the operators, and such notice shall indicate the grade of the certified operator in responsible charge who will be required to supervise the reclassified plant or system and how soon an operator with such qualifications must be obtained. *(Water Pollution Control Board; 327 IAC 8-12-2.5; filed Nov 20, 2000, 4:11 p.m.: 24 IR 977)*

### **327 IAC 8-12-3 Qualifications of a certified operator**

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-13

**Affected:** IC 13-11-2; IC 13-18-11

Sec. 3. (a) In order to become a certified operator of a

water treatment plant or a water distribution system, a person must:

- (1) meet the minimum qualifications specified in subsection (b); and
  - (2) pass the certification examination required by the commissioner unless exempted by statute or rule.
- (b) Prior to applying to take the water treatment plant or water distribution system operator certification examination given by the commissioner, a person must have the following qualifications:
- (1) The educational skills necessary to:
    - (A) make simple computations with fractions and decimals;
    - (B) read a linear scale;
    - (C) calculate volumes of simple shapes;
    - (D) make simple computations of multiplication and division;
    - (E) keep records;
    - (F) read and write the English language to the extent of interpreting service manuals and work orders and submitting written reports;
    - (G) understand basic principles of sanitation; and
    - (H) understand basic principles of science.
  - (2) With the exception of an operator-in-training, experience acceptable to the commissioner in the field of water treatment or water distribution that:
    - (A) demonstrates the examination applicant's technical knowledge;
    - (B) can be verified based on information from available sources, primarily the applicant's water treatment plant or water distribution system employer; and
    - (C) is the result of satisfactory accomplishment of work in accordance with the following:
      - (i) Measured from the date of employment of the applicant to the date of the next scheduled examination.
      - (ii) Received under the supervision of a certified operator qualified to operate the same classification of treatment plant or distribution system as that of the applicant's certification application.

*(Water Pollution Control Board; 327 IAC 8-12-3; filed Sep 24, 1987, 3:00 p.m.: 11 IR 721; filed Sep 19, 1990, 3:00 p.m.: 14 IR 262; filed Dec 12, 1994, 4:39 p.m.: 18 IR 1232; errata filed Mar 9, 1995, 4:15 p.m.: 18 IR 1836; filed Nov 20, 2000, 4:11 p.m.: 24 IR 977)*

### **327 IAC 8-12-3.2 Certified operator grades**

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-13  
**Affected:** IC 13-18-11

Sec. 3.2. (a) Grade operator-in-training (O.I.T.) is available under the following guidelines:

- (1) To a person meeting the following:
  - (A) Currently employed at a public water system with facilities classified as a Class WT 3, Class WT 4, or Class WT 5 water treatment plant or a DSL water distribution system.
  - (B) Has fulfilled the qualifications of section 3(a)(2) and 3(b)(1) of this rule.
- (2) In accordance with the following:
  - (A) Until the O.I.T. meets the experience requirement needed for the classification of treatment plant or distribution system where the O.I.T. is accumulating work experience.
  - (B) Operating work must be accomplished under the supervision of a certified operator in responsible charge who must verify to the commissioner the satisfactory achievement of acceptable experience by the O.I.T.
  - (C) An O.I.T. may not:
    - (i) serve as a certified operator in responsible charge;
    - (ii) transfer an O.I.T. certification to a water treatment plant or distribution system with a public water system identification number (PWSID) different than the PWSID for which the certification was issued;
    - (iii) hold two (2) treatment plant or distribution system O.I.T. certifications concurrently; or
    - (iv) renew the O.I.T. certification.
- (b) A water distribution system certified operator may possess a valid certification in one (1) or more of the following three (3) grades:
  - (1) Grade DSS is a certified operator qualified to operate a Class DSS water distribution system after having fulfilled the following requirements:
    - (A) Possess a high school diploma or its equivalent.
    - (B) Meet the qualifications of section 3 of this rule.
    - (C) Attain a minimum of one (1) year of acceptable work experience in the operation of a Class DSS water distribution system.
  - (2) Grade DSM is a certified operator qualified to operate a Class DSS and Class DSM water distribution system after having fulfilled the following requirements:
    - (A) Possess a high school diploma or its equivalent.
    - (B) Meet the qualifications of section 3 of this rule.
    - (C) Attain one (1) of the following acceptable work experience requirements:
      - (i) One (1) year in the operation of a Class DSM water distribution system.
      - (ii) Two (2) years in the operation of a Class DSS water distribution system.
  - (3) Grade DSL is a certified operator qualified to operate a Class DSS, Class DSM, and Class DSL

water distribution system after having fulfilled the following requirements:

- (A) Possess a high school diploma or its equivalent.
  - (B) Meet the qualifications of section 3 of this rule.
  - (C) Must be able to:
    - (i) maintain inventories;
    - (ii) order supplies and equipment; and
    - (iii) interpret chemical and bacteriological sample reports.
  - (D) Attain one (1) of the following acceptable work experience requirements:
    - (i) One (1) year in the operation of a Class DSL water distribution system.
    - (ii) Three (3) years in the operation of a Class DSM water distribution system.
    - (iii) Five (5) years in the operation of a Class DSS water distribution system.
    - (iv) An acceptable number of years of experience approved by the commissioner if gained in operation of a combination of the various classifications of water distribution systems.
- (c) A water treatment plant certified operator may possess a valid certification in one (1) or more of the following five (5) grades:
- (1) Grade WT 1 is a certified operator qualified to operate a Class WT 1 water treatment plant after having fulfilled the following requirements:
    - (A) Possess a high school diploma or its equivalent.
    - (B) Meet the qualifications of section 3 of this rule.
    - (C) Must be able to:
      - (i) maintain inventories;
      - (ii) order supplies and equipment; and
      - (iii) interpret chemical and bacteriological sample reports.
    - (D) Attain a minimum of one (1) year of acceptable work experience in the operation of a Class WT 1 water treatment plant.
  - (2) Grade WT 2 is a certified operator qualified to operate a Class WT 1 and a Class WT 2 water treatment plant after having fulfilled the following requirements:
    - (A) Possess a high school diploma or its equivalent.
    - (B) Meet the qualifications of section 3 of this rule.
    - (C) Must be able to:
      - (i) maintain inventories;
      - (ii) order supplies and equipment; and
      - (iii) interpret chemical and bacteriological sample reports.
    - (D) Attain one (1) of the following acceptable work experience requirements:
      - (i) One (1) year in the operation of a Class WT 2 water treatment plant.
      - (ii) Two (2) years in the operation of a Class WT

1 water treatment plant.

- (3) Grade WT 3 is a certified operator qualified to operate a Class WT 1, Class WT 2, and Class WT 3 water treatment plant after having fulfilled the following requirements:
  - (A) Possess a high school diploma or its equivalent.
  - (B) Meet the qualifications of section 3 of this rule.
  - (C) Must be able to:
    - (i) maintain inventories;
    - (ii) order supplies and equipment; and
    - (iii) interpret chemical and bacteriological sample reports.
  - (D) Attain the following acceptable work experience at a minimum:
    - (i) Two (2) years in the operation of a Class WT 3 water treatment plant.
    - (ii) Successful completion of educational work at college level in:
      - (AA) engineering;
      - (BB) chemistry; or
      - (CC) science;
 related to water treatment may be substituted for work experience required according to item (i) at the ratio of four (4) semesters or six (6) quarters of schooling for a maximum substitution of one (1) year of experience.
- (4) Grade WT 4 is a certified operator qualified to operate a Class WT 1, Class WT 2, and Class WT 4 water treatment plant after having fulfilled the following requirements:
  - (A) Possess a high school diploma or its equivalent.
  - (B) Meet the qualifications of section 3 of this rule.
  - (C) Must be able to:
    - (i) maintain inventories;
    - (ii) order supplies and equipment; and
    - (iii) interpret chemical and bacteriological sample reports.
  - (D) Attain the following acceptable work experience at a minimum:
    - (i) Two (2) years in the operation of a Class WT 4 water treatment plant.
    - (ii) Successful completion of educational work at college level in:
      - (AA) engineering;
      - (BB) chemistry; or
      - (CC) science;
 related to water treatment may be substituted for work experience required according to item (i) at the ratio of four (4) semesters or six (6) quarters of schooling for a maximum substitution of one (1) year of experience.
    - (iii) Two (2) years in the operation of a Class WT 3 water treatment plant may substitute for a maxi-

imum of one (1) year of experience required according to item (i).

(5) Grade WT 5 is a certified operator qualified to operate a Class WT 1, Class WT 2, Class WT 4, and Class WT 5 water treatment plant after having fulfilled the following requirements:

- (A) Possess a high school diploma or its equivalent.
- (B) Meet the qualifications of section 3 of this rule.
- (C) Must have the ability to:
  - (i) use conversion factors;
  - (ii) solve simple mathematical equations;
  - (iii) understand simple chemical laboratory equipment;
  - (iv) understand the bacteriological procedures used in water supply work;
  - (v) maintain inventories; and
  - (vi) order supplies and equipment.

(D) Attain the following acceptable work experience at a minimum:

- (i) One (1) of the following:
  - (AA) Three (3) years in the operation of a Class WT 5 water treatment plant.
  - (BB) Five (5) years in the operation of a Class WT 4 water treatment plant.
- (ii) Successful completion of educational work at college level in:
  - (AA) engineering;
  - (BB) chemistry; or
  - (CC) science;
 related to water treatment may be substituted for work experience required according to item (i) at the ratio of four (4) semesters or six (6) quarters of schooling for one (1) year of experience, up to a maximum of two (2) years of experience.
- (iii) Two (2) years in the operation of a WT 3 water treatment plant may be substituted for one (1) year of experience required according to item (i) up to a maximum substitution of two (2) years experience.

(6) Grade WT 6 is a certified operator qualified to operate a Class WT 6 water treatment plant that requires operator qualifications determined by the commissioner on an individual plant basis in response to the specialized nature of the water treatment plant.

(d) An applicant for water treatment plant or water distribution system operator certification may submit proof to the commissioner to demonstrate the achievement of an equivalent level of acceptable work experience for that required by the following subsections:

- (1) (b)(1)(C).
- (2) (b)(2)(C).
- (3) (b)(3)(D).
- (4) (c)(1)(D).

(5) (c)(2)(D).

(6) (c)(3)(D).

(7) (c)(4)(D).

(8) (c)(5)(D).

(e) A Grade WT 3, Grade WT 4, and Grade WT 5 operator is qualified to apply for the appropriate wastewater treatment certification according to 327 IAC 5-22 to treat wastewater from a water treatment plant provided the operator is certified to operate that classification of water treatment plant. (*Water Pollution Control Board; 327 IAC 8-12-3.2; filed Nov 20, 2000, 4:11 p.m.: 24 IR 980*)

### 327 IAC 8-12-3.4 Grandparenting

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-10.5; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 3.4. (a) For the purposes of this rule, grandparenting is the process through which the commissioner may issue operator certification to a person who has been working at a water treatment plant or water distribution system that prior to the effective date of this rule was not required to be under the supervision of a certified operator. An operator certificate to be conferred through grandparenting may be issued if:

- (1) the owner or governing body meets the criterion of subsection (b); and
- (2) the recipient of such certificate must abide by the requirements of subsection (d).

(b) The commissioner may issue an operator certification in the operator grade appropriate to the classification of water treatment plant or water distribution system where the recipient has been an employee acting in the capacity of an operator making process control decisions that affect the quality or quantity of water from the treatment plant or distribution system if the owner or governing body submits an application to the commissioner before September 1, 2002, requesting certification of each person intended to be designated as one (1) of the facility's operators in responsible charge.

(c) A certification conferred under grandparenting shall be:

- (1) valid only at the site where the person receiving the grandparent certification gained operator experience;
- (2) valid for three (3) years during which time the operator must:

- (A) fulfill the continuing education requirements for the grade of operator certification that has been conferred through grandparenting as listed in section 7.5 of this rule in order to be eligible for certification renewal according to section 7(e)(3) of this rule; and
- (B) successfully complete an operator training

course specified by the commissioner; and

(3) invalid if the classification of the water treatment plant or water distribution system changes to one (1) requiring a certified operator with more extensive education or experience qualifications, such as may be based on:

- (A) increased capacity;
- (B) an increase in population served;
- (C) a basic change in the method of water treatment; or
- (D) another change in conditions that causes a more difficult or complex operation.

(d) If an operator certified under grandparenting according to this section:

- (1) fails to meet the continuing education requirements of section 7.5 of this rule within the required time according to subsection (c)(2); or
- (2) goes to work at water treatment plant or water distribution system other than the one for which the grandparent certification was conferred;

then the grandparent certification is voided and the operator must become certified according to the requirements of this rule. (*Water Pollution Control Board; 327 IAC 8-12-3.4; filed Nov 20, 2000, 4:11 p.m.: 24 IR 982*)

### **327 IAC 8-12-3.6 Certified operator in responsible charge**

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 3.6. (a) A certified operator may be in responsible charge of more than one (1) water treatment plant or water distribution system, if the following conditions are met:

- (1) The certified operator will be able to provide adequate supervision to all units involved.
- (2) Prior to undertaking multiple operator positions of responsible charge, a letter signed by the certified operator is submitted to the owner or governing body of each water treatment plant and water distribution system to be under the responsible charge of the certified operator providing the following information:
  - (A) The name and location of each each water treatment plant and water distribution system to be under the responsible charge of the certified operator.
  - (B) The number of hours per week the certified operator shall work at each water treatment plant and water distribution system.

(b) As used in this section, "adequate supervision" means that sufficient time is spent at a water treatment plant or water distribution system on a regular basis to assure that the certified operator is knowledgeable of the actual operations and that test reports and results are

representative of the actual operational conditions. A daily visit is the time that a certified operator is present on site at the facility of responsibility during a twenty-four (24) hour period; a certified operator shall be credited for no more than one (1) daily visit within a twenty-four (24) hour period. The following establishes minimum criteria regarding adequate supervision at each classification of water distribution system and water treatment plant:

(1) DSS must:

- (A) be monitored daily by a dependable person or automated system; and
- (B) have a certified operator on site for a minimum of two (2) daily visits every week.

(2) DSM must:

- (A) be monitored daily by a dependable person or automated system; and
- (B) have a certified operator on site for a minimum of three (3) daily visits every week.

(3) DSL must:

- (A) be monitored daily by a dependable person or automated system; and
- (B) have a certified operator on site for a minimum of five (5) daily visits every week.

(4) WT 1 must:

- (A) be monitored daily by a dependable person or automated system; and
- (B) have a certified operator on site for a minimum of three (3) daily visits every week.

(5) WT 2 must:

- (A) be monitored daily by a dependable person or automated system; and
- (B) have a certified operator on site for a minimum of five (5) daily visits every week.

(6) WT 3 must:

- (A) be monitored daily by a dependable person or automated system; and
- (B) have a certified operator on site for a minimum of five (5) daily visits every week.

(7) WT 4 must have a certified operator on site during water treatment plant operation unless the plant is equipped with an automated system approved by the commissioner.

(8) WT 5 must have a certified operator on site during water treatment plant operation unless the plant is equipped with an automated system approved by the commissioner.

(c) The commissioner may request written submission documenting the following:

- (1) The name, location, and classification of each water treatment plant and water distribution system under the responsible charge of a certified operator.
- (2) The amount of time that a certified operator in

responsible charge spends at a facility of responsibility identified according to subdivision (1).

(d) The commissioner shall evaluate information required by this section and any other information pertinent to a water treatment plant or water distribution system under the supervision of a certified operator in responsible charge of multiple facilities and may determine the following:

- (1) The time provided for supervision is inadequate.
- (2) An amount of time that the certified operator in responsible charge shall be required to spend in the operation of each water treatment plant or water distribution system.
- (3) A reduction of the number of water treatment plants or water distribution systems over which the certified operator may have responsible charge.
- (4) A reduction of the number of daily visits to be required by the certified operator.

*(Water Pollution Control Board; 327 IAC 8-12-3.6; filed Nov 20, 2000, 4:11 p.m.: 24 IR 982)*

### **327 IAC 8-12-3.8 Certification transition**

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-13  
**Affected:** IC 13-18-11

Sec. 3.8. (a) A certified operator whose certification is valid on the effective date of this rule shall transition to a grade of certification according to the following:

- (1) A Grade DS certified operator shall transition to a Grade DSM certification.
  - (2) A Grade DS certified operator shall transition to a Grade DSL certification if the certified operator has experience in the operation of a distribution system that:
    - (A) serves a population of more than ten thousand one (10,001); or
    - (B) is classified as DSL according to section 2 of this rule.
  - (3) A Grade DS-L certified operator shall transition to a Grade DSL certification.
  - (4) A Grade CT certified operator shall transition to a Grade WT 2 certification.
  - (5) A Grade PF certified operator shall transition to a Grade WT 3 certification.
  - (6) A Grade GF certified operator shall transition to a Grade WT 4 certification.
  - (7) A Grade GF certified operator shall transition to a Grade WT 5 certification if the certified operator has experience in the operation of a water treatment plant that is classified as Class WT 5 according to section 2 of this rule.
  - (8) A Grade AT certified operator shall transition to a Grade WT 3 and Grade WT 5 certification.
- (b) A certified operator having certification that:

(1) is valid on the effective date of this rule; and

(2) was obtained by virtue of the position held July 1, 1972;

shall be eligible to operate only the water treatment plant or water distribution system that is designated on the issued certification.

(c) A certified operator shall be qualified to operate at the same classification of facility as the operator was certified to operate prior to the effective date of this rule.

(d) The commissioner may request proof of required experience to transition to a grade identified in subsection (a).

(e) A certified operator affected by the transition of certification according to this section may submit additional information to substantiate a request to transition to a grade other than that indicated in subsection (a) if the substantiating information is submitted to the commissioner by July 1, 2002. *(Water Pollution Control Board; 327 IAC 8-12-3.8; filed Nov 20, 2000, 4:11 p.m.: 24 IR 983)*

### **327 IAC 8-12-4 Examination of applicants to become a certified operator of a water treatment plant or water distribution system**

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-13  
**Affected:** IC 13-18-11

Sec. 4. (a) A standardized examination prepared to reflect the duties and responsibilities required of each grade of water treatment plant and water distribution system certified operator shall be:

- (1) used to test knowledge, ability, and judgment of an applicant to become a water treatment plant or water distribution system certified operator;
  - (2) conducted at least annually; and
  - (3) held at places and times established by the commissioner:
    - (A) with at least sixty (60) days advanced announcement; and
    - (B) except in such cases as may be declared necessary exceptions by the commissioner.
- (b) A person wishing to be examined for water treatment plant or water distribution system certification shall fulfill the following requirements:
- (1) Complete an application on a form approved by the commissioner that:
    - (A) contains true and accurate information to the best of the applicant's knowledge; and
    - (B) is free of omissions and misrepresentations, either of which may result in rejection of the application or revocation of any certificate previously granted.

(2) Submit a completed application, with the necessary fee, to the commissioner not later than forty-five (45) days preceding the date of the examination.

(c) The commissioner shall:

(1) review an application and supporting documents concerning the eligibility of an applicant for water treatment plant or water distribution system certification; and

(2) issue a written notification in the form of an admission slip, providing the time and place of the examination, to be presented by an applicant deemed eligible for examination.

(d) A person who has been notified and scheduled to take an examination:

(1) may submit a written request to the commissioner for a postponement to take the examination one (1) offering later than the examination granted by the commissioner if:

(A) the postponement for a nonemergency reason is requested no later than fourteen (14) days prior to the examination date noticed to the applicant under subsection (c)(2);

(B) the postponement request for an emergency reason is submitted as soon as conditions of the emergency warrant;

(C) the applicant provides the commissioner an explicit description of extenuating circumstances necessitating the requested postponement; and

(D) the applicant understands that only one (1) postponement shall be allowed; or

(2) will be considered to have failed that examination if one (1) of the following occurs:

(A) The person does not attend the examination and has not requested a postponement according to subdivision (1).

(B) The person is caught cheating on an examination, an occurrence that will make an applicant ineligible to take any operator certification examination for a period of two (2) years following the examination date of the incidence of cheating.

(e) Completed examinations shall be managed by the commissioner according to the following:

(1) Graded in a manner prescribed by the commissioner with a minimum result of seventy percent (70%) needed in order to pass the examination.

(2) The commissioner shall notify an applicant of the examination result:

(A) in writing; and

(B) no later than two (2) months after the date of the examination.

(3) Examination papers shall be retained by the commissioner with an opportunity afforded to an applicant notified of having failed the examination for review of

the graded examination until a date ninety (90) days prior to the next scheduled examination if the applicant submits the following to the commissioner:

(A) A written request for review of the graded examination.

(B) A statement affirming the applicant's understanding that examination review does not include the right to copy, by any means, the examination or any portion of it.

(f) A person previously certified as a water treatment plant or water distribution system operator under this rule but who has failed to meet the renewal requirements according to section 7(e)(3) of this rule must:

(1) retake an examination; and

(2) meet the renewal requirements of section 7(e)(3) of this rule, including an amount of continuing education equivalent to that required for one (1) renewal period, as specified in section 7.5 of this rule;

within a grace period of one (1) year. (*Water Pollution Control Board; 327 IAC 8-12-4; filed Sep 24, 1987, 3:00 p.m.: 11 IR 723; filed Sep 19, 1990, 3:00 p.m.: 14 IR 265; filed Dec 12, 1994, 4:39 p.m.: 18 IR 1235; filed Nov 20, 2000, 4:11 p.m.: 24 IR 984*)

### 327 IAC 8-12-5 Certification fees

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-6.5; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 5. (a) Fees for water treatment plant and water distribution system operator certification shall be as follows:

(1) Certification, including certificate	\$30
(2) Certification by examination for a new classification	\$30
(3) Triennial renewal fee	\$30
(4) Duplicate or replacement certificate	\$15
(5) Replacement card	\$15

(b) An application fee will not be returned to an applicant:

(1) who is deemed by the commissioner to be ineligible for water treatment plant or water distribution system certification examination;

(2) who does not receive a minimum score of seventy percent (70%) as required by section 4(e)(1) of this rule; or

(3) whose examination is voided for cheating according to section 4(d)(2)(B) of this rule.

(*Water Pollution Control Board; 327 IAC 8-12-5; filed Sep 24, 1987, 3:00 p.m.: 11 IR 724; filed Sep 19, 1990, 3:00 p.m.: 14 IR 266; filed Oct 22, 1991, 5:00 p.m.: 15 IR 225; filed Dec 12, 1994, 4:39 p.m.: 18 IR 1236; errata filed Mar 9, 1995, 4:15 p.m.: 18 IR 1836; filed*)

*Sep 3, 1996, 3:00 p.m.: 20 IR 12; filed Nov 20, 2000, 4:11 p.m.: 24 IR 985)*

### **327 IAC 8-12-6 Certification; reciprocity; provisional certificate**

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-13

**Affected:** IC 13-18-11-9

Sec. 6. (a) The commissioner shall issue a certificate designating competency in the appropriate certified operator's grade to each person who makes proper application if the applicant meets the necessary requirements of education and experience and successfully completes a grade appropriate examination. Upon successful completion of examination according to section 4 of this rule, the commissioner shall issue a certification in the certified operator grade in which the applicant was examined.

(b) The commissioner may issue a certificate by reciprocity as outlined in IC 13-18-11-9 if the following conditions are met:

(1) A person seeking reciprocal certification submits an application for such a certificate that includes the following:

(A) Proof of current certification.

(B) Grade of the applicant.

(2) A person from another state seeking a certificate by reciprocity earns the number of continuing education contact hours for all future renewal periods, in the time period required by section 7.5(a) of this rule though no continuing education contact hours shall be required at the time of conferring the reciprocal certification.

(c) The commissioner may issue a provisional water treatment plant or water distribution operator's certificate, if the following occur:

(1) The governing body or owner of a water treatment plant or water distribution system submits a written request specifying the existence of the vacancy and a reason necessitating the provisional certification, including one (1) of the following:

(A) To fill a vacancy created by death.

(B) Resignation of the certified operator in responsible charge.

(C) Extended illness of the certified operator in responsible charge.

(D) A justifiable cause due to unforeseen circumstances beyond the control of the governing body or owner that leaves the treatment plant or distribution system without a certified operator.

(2) The written request required by subdivision (1) provides the name, education, and experience of the person for whom the provisional certificate is requested.

(3) The provisional certificate nominee named under subdivision (2) submits, simultaneously with the request submitted under subdivision (1), an application as required by section 4(b) of this rule requesting examination and certification.

(4) The provisional certificate nominee named under subdivision (2) is eligible at the time of the request submitted under subdivision (1) for the next scheduled certification examination.

(d) A provisional certificate shall be:

(1) issued by the commissioner in the form of a letter that specifies the conditions of the certification; and

(2) valid for the shorter of the following lengths of time:

(A) The period between the date of application and the end of the thirty (30) day grading period following the next examination that is available to the provisional certificate nominee.

(B) One (1) year.

*(Water Pollution Control Board; 327 IAC 8-12-6; filed Sep 24, 1987, 3:00 p.m.: 11 IR 724; filed Sep 19, 1990, 3:00 p.m.: 14 IR 266; filed Dec 12, 1994, 4:39 p.m.: 18 IR 1236; filed Nov 20, 2000, 4:11 p.m.: 24 IR 985)*

### **327 IAC 8-12-7 Certificates and certification cards; renewal; duplicates**

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-13

**Affected:** IC 13-18-11-6

Sec. 7. (a) A water treatment plant and water distribution system operator's certificate shall:

(1) be issued after an applicant's successful completion of the grade appropriate examination;

(2) specify the month and year that the applicant qualified and the issuance date of the certificate;

(3) be permanent in nature but will be effective only when validated by a current certification card; and

(4) not be valid if obtained through fraud, deceit, or by the submission of inaccurate data on the application.

(b) A water treatment plant or water distribution system certified operator must:

(1) provide permanent and visible display of his or her certificate at the water treatment plant or water distribution system office; and

(2) obtain a duplicate certificate to display in the office of each water treatment plant and water distribution system supervised, if the certified operator supervises more than one (1) water treatment plant or water distribution system.

(c) A certification card shall:

(1) be issued simultaneously with the certificate;

(2) be issued for a time period of no more than thirty-six (36) months; and

(3) expire on the last day of June nearest the end of the triennial period following issuance.

(d) A water treatment plant or water distribution system certified operator needing a replacement or duplicate certificate must or card submit a written request to the commissioner that includes the following:

(1) The following information:

(A) The grade of the water treatment plant or water distribution system certified operator.

(B) The name and classification of the water treatment plant or water distribution system to be operated.

(C) The date of issuance of the original certificate if known.

(D) The certificate number.

(2) A fee specified according to section 5(a)(4) or 5(a)(5) of this rule.

(e) The commissioner shall accomplish the following:

(1) Issue to each certified operator of a water treatment plant or water distribution system a renewal notification stating the following:

(A) The expiration date of the certified operator's certification card.

(B) The amount of the fee required for certification card renewal.

(2) Mail certification card renewal notifications:

(A) at least thirty (30) days prior to expiration of the certification card; and

(B) to the last known address filed with the commissioner.

(3) Renew a certification card if:

(A) the continuing education requirements of section 7.5 of this rule are met;

(B) a renewal fee described in section 5(a)(3) of this rule is submitted to the commissioner on or before the first day of July of the triennial period for which a certification card is to be issued; and

(C) the notice is signed and returned by the certified operator to the commissioner.

(4) Reinstate certification if the operator:

(A) submits payment of any arrearage of fees;

(B) submits payment of the current renewal fee;

(C) passes the grade appropriate examination;

(D) fulfills arrearage of continuing education credit requirements; and

(E) is current in meeting continuing education credit requirements.

(5) Deny renewal of a certification card that is not renewed within the time limit established in section 7.5(a) of this rule and IC 13-18-11-6(c) unless the operator pursues reinstatement through reapplication and reexamination following the requirements of section 4 of this rule.

*(Water Pollution Control Board; 327 IAC 8-12-7; filed*

*Sep 24, 1987, 3:00 p.m.: 11 IR 724; filed Sep 19, 1990, 3:00 p.m.: 14 IR 267; filed Dec 12, 1994, 4:39 p.m.: 18 IR 1236; filed Nov 20, 2000, 4:11 p.m.: 24 IR 986)*

### **327 IAC 8-12-7.1 Continuing education credit; criteria for approval**

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-6.5; IC 13-18-11-13

**Affected:** IC 13-18-11

Sec. 7.1. (a) Continuing education contact hour credit shall be given only for completed course work that has been approved by the commissioner according to the following:

(1) A training provider has submitted an application and received continuing education course approval from the commissioner prior to publicly offering a water treatment plant or water distribution system continuing education course. The application must:

(A) be submitted on a form approved by the commissioner;

(B) be submitted no less than sixty (60) days before the first date when the course is conducted;

(C) be accompanied by a written course outline or brochure; and

(D) contain the following information:

(i) Name, address, and telephone number of a course sponsor, training provider, or other contact person.

(ii) Name of course.

(iii) Specific topics that are included in the course presentations.

(iv) Amount of time devoted to each topic.

(v) Instructor's name and qualifications, including the following:

(AA) Educational background.

(BB) Professional experience.

(CC) Current professional affiliation.

(vi) Dates and locations where the course will be offered.

(2) The water treatment plant or water distribution system continuing education course meets the following requirements:

(A) The course deals with one (1) or more of the following as determined by the commissioner:

(i) Technical matters related directly to water distribution or water treatment.

(ii) General matters related to the responsibilities of a certified operator.

(B) Each instructor or speaker is qualified by academic work or practical experience to teach the proposed water treatment plant or water distribution system continuing education course.

(b) A water treatment plant or water distribution

system certified operator may petition the commissioner for approval of a water treatment plant or water distribution system continuing education course if the following procedures are met:

- (1) An application of petition is submitted to the commissioner prior to or within thirty (30) days of course completion.
- (2) The application must contain the information required by subsection (a)(1)(A), (a)(1)(C), and (a)(1)(D).
- (3) The certified operator must supply written proof of attendance within thirty (30) days after course completion.

(c) Continuing education contact hours of credit earned in another state, whether that state has reciprocity with Indiana for the purpose of transferring a certificate of water treatment plant or water distribution system operator competency, may be eligible for credit if the commissioner is provided the information required by subsection (a)(1)(A), (a)(1)(C), and (a)(1)(D) for the course work from which the contact hours were earned.

(d) A certified operator who is an instructor or speaker at a water treatment plant or water distribution system continuing education course shall be credited the same number of contact hours as the students of the course. *(Water Pollution Control Board; 327 IAC 8-12-7.1; filed Sep 19, 1990, 3:00 p.m.: 14 IR 268; filed Dec 12, 1994, 4:39 p.m.: 18 IR 1237; filed Nov 20, 2000, 4:11 p.m.: 24 IR 988)*

**327 IAC 8-12-7.5 Continuing education requirements**

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-6.5; IC 13-18-11-13  
**Affected:** IC 13-18-11

Sec. 7.5. (a) All water treatment plant and water distribution system certified operators shall fulfill continuing education requirements in amounts specified in Table 7.5(b) in subsection (b) during each three (3) year period following the issuance of the certification card and prior to having that certification card renewed.

(b) Continuing education credits required for certification card renewal in the grades of water treatment plant and water distribution system certified operators are listed in the following table:

Table 7.5(b)

Certified Operator Grades, Water Distribu- tion System and Water Treatment Plant Grade O.I.T.	Continuing Education Credits Required for Renewal Contact hours shall match those required for the classification where operator is in training; cer- tification card not renewable
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Grade DSS	10 contact hours
Grade DSM	15 contact hours
Grade DSL	15 contact hours
Grade WT 1	10 contact hours
Grade WT 2	15 contact hours
Grade WT 3	25 contact hours
Grade WT 4	30 contact hours
Grade WT 5	30 contact hours
Grade WT 6	30 contact hours

(c) Continuing education credits required according to Table 7.5(b) in subsection (b) must adhere to a distribution of subject matter according to the following:

- (1) A minimum of seventy percent (70%) of the required continuing education contact hours shall be obtained from the technical category of approved continuing education courses.
- (2) No more than thirty percent (30%) of the required continuing education contact hours shall be obtained from nontechnical subject matter of approved continuing education courses.

(d) A person having a valid certification card in more than one (1) classification of water treatment plant or water distribution system:

- (1) may be given duplicate continuing education credit from a single approved continuing education course for each water treatment plant and water distribution system certification to which the subject matter is applicable; and
- (2) must obtain the greatest number of continuing education contact hours required by the various certifications held within the shared time period of overlap in order not to be required to obtain continuing education for each certificate held.

*(Water Pollution Control Board; 327 IAC 8-12-7.5; filed Nov 20, 2000, 4:11 p.m.: 24 IR 989)*

**327 IAC 8-12-7.6 Continuing education credit; training provider responsibilities**

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-6.5; IC 13-18-11-13  
**Affected:** IC 13-18-11

Sec. 7.6. (a) A training provider shall generate records of each water treatment plant or water distribution system continuing education course conducted that include the following:

- (1) The date of the water treatment plant or water distribution system continuing education course.
- (2) The name of each person attending the water treatment plant or water distribution system continuing education course.

- (3) The length of time of the course.
  - (4) The instructor's name.
  - (5) The course content.
  - (6) The name of the organization sponsoring the course.
- (b) Records required by subsection (a) shall be maintained for a five (5) year period following the presentation of each water treatment plant or water distribution system continuing education course.

(c) A training provider must submit the information required by subsection (a) to the commissioner according to the following:

- (1) On a form approved by the commissioner.
- (2) Within thirty (30) days of the conclusion of the water treatment plant or water distribution system continuing education course.

*(Water Pollution Control Board; 327 IAC 8-12-7.6; filed Nov 20, 2000, 4:11 p.m.: 24 IR 989)*

### **327 IAC 8-12-8 Suspension or revocation of certification**

**Authority:** IC 13-14-8; IC 13-18-11-1.5; IC 13-18-11-8; IC 13-18-11-13

**Affected:** IC 4-21.5; IC 13-18-11

Sec. 8. The commissioner may suspend or revoke the certificate of a water treatment plant or water distribution system certified operator, following a hearing pursuant to IC 4-21.5, if it is found that the certified operator has violated any provision of IC 13-18-11-8. *(Water Pollution Control Board; 327 IAC 8-12-8; filed Sep 24, 1987, 3:00 p.m.: 11 IR 725; filed Nov 20, 2000, 4:11 p.m.: 24 IR 990)*

## **ARTICLE 9. (RESERVED)**

## **ARTICLE 10. (RESERVED)**

## **ARTICLE 11. STATE ENVIRONMENTAL POLICY**

Rule 1. Environmental Assessment; Activities of State Agencies

Rule 2. Environmental Impact Statement; Activities of State Agencies

### **Rule 1. Environmental Assessment; Activities of State Agencies**

- 327 IAC 11-1-1 The environmental assessment
- 327 IAC 11-1-2 Purpose of rule
- 327 IAC 11-1-3 Applicability of rule; exemptions
- 327 IAC 11-1-4 General considerations for preparing environmental assessment forms
- 327 IAC 11-1-5 Environmental assessment form

### **327 IAC 11-1-1 The environmental assessment**

**Authority:** IC 13-1-10-3; IC 13-7-7

**Affected:** IC 13-1-10

Sec. 1. (a) IC 13-1-10-3 authorizes and directs that, to the fullest extent possible, all agencies of the state shall include in every recommendation or report on proposals for legislation and other "major state actions significantly affecting the quality of the human environment," a detailed statement on:

- (1) the environmental impact of the proposed action;
- (2) any adverse environmental effects which cannot be avoided should the proposal be implemented;
- (3) alternatives to the proposed action;
- (4) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity; and
- (5) any irreversible and irretrievable commitments of resources which would be involved if the proposed actions should be implemented.

The detailed statement described above shall be referred to in this article (327 IAC 11) as an "environmental assessment".

(b) IC 13-1-10-3 further provides that the water pollution control board shall by rule define which actions constitute a "major state action significantly affecting the quality of the human environment". *(Water Pollution Control Board; 327 IAC 11-1-1; filed Sep 24, 1987, 3:00 pm: 11 IR 725; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 11-1-2 Purpose of rule**

**Authority:** IC 13-1-10-3; IC 13-7-7

**Affected:** IC 13-1-10

Sec. 2. The purpose of this rule (327 IAC 11-1) is to designate which actions are within the scope of IC 13-1-10-3 and in particular which actions constitute a major state action significantly affecting the quality of the human environment, and to provide an environmental assessment form to assist in that determination. *(Water Pollution Control Board; 327 IAC 11-1-2; filed Sep 24, 1987, 3:00 pm: 11 IR 725; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 11-1-3 Applicability of rule; exemptions**

**Authority:** IC 13-1-10-3; IC 13-7-7

**Affected:** IC 13-1-10

Sec. 3. (a) This rule (327 IAC 11-1) applies to all state agencies.

(b) Each agency of the state shall comply with this rule (327 IAC 11-1) unless existing law applicable to the agency's operations expressly prohibits or makes compliance impossible.

(c) IC 13-1-10-7 provides that the "(P)olicies and goals set forth in IC 13-1-10-7 and this rule (327 IAC 11-1) are

supplementary to those set forth in existing authorizations of state agencies.” Accordingly, each agency shall interpret the provisions of IC 13-1-10-7 and this rule (327 IAC 11-1) as a supplement to its existing authority and as a mandate to view traditional policies in the light of the chapter's (IC 13-1-10) environmental objectives.

(d) Actions covered include but are not limited to:

- (1) agency legislative proposals;
- (2) new and continuing projects and program activities directly undertaken by the agency or supported in whole or in part through state contracts, grants, subsidies, loans or other forms of funding assistance;
- (3) the making, modification, or establishment of rules.

(e) Actions exempted:

- (1) administrative procurements (e.g. general supplies);
- (2) contracts for consulting services;
- (3) personnel actions;
- (4) repair or maintenance of existing structures or facilities involving no expansion;
- (5) basic data collection, research and experimental management and resource evaluation activities which do not result in a significant disturbance to the environment.

(f) Categorical exemptions:

- (1) Minor actions. Each agency may submit to the department of environmental management for approval a list of those actions which it considers to be minor in nature and, therefore, categorically exempted. Only those actions on the lists shall be so exempted.
- (2) Emergency actions. Those actions necessitated by a sudden unexpected occurrence which demands immediate action to mitigate loss or damage to life, health, property or essential public services shall be exempted.

(g) Statutory exemptions:

- (1) The issuance of a license or permit by any agency of the state, as exempted by IC 13-1-10-6.
- (2) IC 13-1-10-8 provides “(A)ny state agency that is required by the National Environmental Policy Act (P.L. 91-190) to file a federal environmental impact statement shall not be required to file a statement with the state government as provided under sections 3 and 4 (IC 13-1-10-3 and IC 13-1-10-4) of this chapter, unless the action contemplated requires state legislation or state appropriations.”

*(Water Pollution Control Board; 327 IAC 11-1-3; filed Sep 24, 1987, 3:00 pm: 11 IR 725; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 11-1-4 General considerations for preparing environmental assessment forms**

**Authority:** IC 13-1-10-3; IC 13-7-7

**Affected:** IC 13-1-10

Sec. 4. (a) It is not within the scope of this rule (327 IAC 11-1) to identify before the fact which major state agency actions significantly affect the quality of the human environment. The specific determination must be developed for each agency action by preparation of an environmental assessment as set forth in 327 IAC 11-1-5.

(b) In preparing the assessment both primary and secondary consequences of short term and long term duration should be considered by the agency, since many state actions stimulate or induce secondary effects in the form of associated investments and changed patterns of social and economic activities.

(c) The effect of many state decisions about a project or complex of projects may be individually limited but can be cumulatively considerable in affecting the environment.

(d) A proposed action which is likely to be highly controversial from an environmental standpoint should be considered significant justification for preparation of an environmental impact statement. *(Water Pollution Control Board; 327 IAC 11-1-4; filed Sep 24, 1987, 3:00 pm: 11 IR 726; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 11-1-5 Environmental assessment form**

**Authority:** IC 13-1-10-3; IC 13-7-7

**Affected:** IC 13-1-10

Sec. 5. The environmental assessment form:

This form is provided to assist in determining whether a proposed action could have significant adverse effect on the quality of the human environment and thus require an environmental impact statement.

AGENCY \_\_\_\_\_

ADDRESS \_\_\_\_\_

ACTION IDENTIFICATION \_\_\_\_\_

PREDICTED DATES: Commencement \_\_\_\_\_

Completion \_\_\_\_\_

PROJECTED COST \_\_\_\_\_

PREPARING BODY (i.e. Agency, Grantee, Contractor) \_\_\_\_\_

#### **I. Background Information**

1. Give a brief description of the proposed action(s) and describe how your agency is involved in the action.
2. Describe the geographical area or areas which will be affected by the action(s), including distinguishing natural and man-made characteristics and a brief description of the present use of the area or areas.

#### **II. Assessment of Environmental Impact**

Answer the following questions by placing a check in the appropriate space, consider both short and long term impact. Wherever “Yes” is checked, indicate on the lines below the question the nature of the effect.

	Short Term Yes	No	Long Term Yes	
1. Could the action(s) adversely affect the use of a recreational area or area of important aesthetic value? _____ _____	___	___	___	9. Will the action(s) require certification, authorization or issuance of a permit by any local, state or federal environmental control agency? _____ _____
2. Are any of the natural or manmade features which may be affected in the area(s) unique, that is, not found in another parts of the state or nation? _____ _____	___	___	___	10. Will the action(s) involve the application, use or disposal of potentially hazardous materials? _____ _____
3. Could the action(s) adversely affect an historical or archaeological structure or site? _____ _____	___	___	___	11. Will the action(s) involve construction of facilities in a flood plain? _____ _____
4. Could the action(s) adversely affect fish, wildlife, or plant life? _____ _____	___	___	___	12. Could the action(s) result in the generation of a significant level of noise? _____ _____
5. Have any fish, mammals or plant species on the rare or endangered list been sited in the affected area(s)? _____ _____	___	___	___	13. Could the action(s) result in the generation of significant amounts of dust? _____ _____
Will those sighted be adversely affected? _____ _____				14. Could the action(s) result in a deleterious effect on the quality of the air? _____ _____
6. Could the action(s) change existing features of any of the state's fresh waters or wetlands? _____ _____	___	___	___	15. Could the action(s) result in deleterious effect on the quality or quantity of any portion of the state's water resources? (If yes, indicate whether surface, groundwater, offshore.) _____ _____
7. Could the action(s) change existing features of any of the state's beaches? _____ _____	___	___	___	16. Could the action(s) affect an area of important scenic value? _____ _____
8. Could the action(s) result in the elimination of significant acreage of land presently utilized for agricultural or forestry purposes? _____ _____	___	___	___	17. Could the action(s) result in increased congestion and/or traffic in an already congested area or an area incapable of absorbing increase? _____ _____

18. Could the action(s) require a variance from or result in a violation of any statute, ordinance, by-law, regulation or standard, the major purpose of which is to prevent or minimize damage to the environment? \_\_\_\_\_

\_\_\_\_\_

19. Could the action(s) result in any form of adverse environmental impact not included in the above questions? (If yes, identify the impacted resource or area.) \_\_\_\_\_

\_\_\_\_\_

which affect or may affect the environment of the state, prior to final adoption or implementation of such plans or activities. (*Water Pollution Control Board; 327 IAC 11-2-1; filed Sep 24, 1987, 3:00 pm: 11 IR 728; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 11-2-2 Definitions**

**Authority:** IC 13-7-7; IC 13-7-16-4  
**Affected:** IC 13-1-3-1.5; IC 13-7-1; IC 13-7-16-4

Sec. 2. In addition to the definitions contained in IC 13-7-1 and IC 13-1-3-1.5, and in 327 IAC 1, the following apply: “Environmental assessment” means a cursory assessment of the probable environmental effect of a proposed action, determined in accordance with the provisions of 327 IAC 11-1.

“Environmental impact statement” means a detailed report on the environmental impact of a proposed action, listing adverse environmental effects which cannot be avoided should the action be implemented, alternatives to the proposed action, any irreversible and irretrievable commitments of resources which would be involved, the growth-inducing aspects of the proposed action, effects of the proposed action on the use and conservation of energy resources, the rationale for selecting the final proposed action, and other information as further herein specified.

“Plans or activities which may affect the environment” means a major state action significantly affecting the environment as determined by the application of 327 IAC 11-1.

“Report” means an environmental assessment or an environmental assessment followed by an environmental impact statement as further herein defined.

“State agency, department or institution” means any department, board, commission, bureau, or council created by the legislature having statewide jurisdiction, the operation of which is financed from appropriations of the general assembly. Local government units at the town, city, township, or county level are not included. (*Water Pollution Control Board; 327 IAC 11-2-2; filed Sep 24, 1987, 3:00 pm: 11 IR 728; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 11-2-3 Environmental assessment; environmental impact statement**

**Authority:** IC 13-1-10-3; IC 13-7-7-1  
**Affected:** IC 13-1-10-3; IC 13-7-16-4

Sec. 3. (a) Environmental Assessment. As early as possible in the formulation of a proposal for an agency action that is not either a statutory exemption or a categorical exemption approved by the board, an environmental assessment will be prepared by the agency in accordance with 327 IAC 11-1 and submitted to the

III. Statement of No Significant Environmental Effects  
 A “Yes” answer in the “Long Term” column in section II indicates that the action may cause significant environmental impact, and that an EIS will probably be required. If you have answered “Yes” to any of the questions, the effect of which is not clearly beneficial, but still think the action will cause no significant adverse environmental impact indicate your reasons below.

IV. Conclusions

Place a check in the appropriate box.

1. ( ) It has been determined that the action will not cause a significant adverse environmental impact. No EIS will be prepared.

2. ( ) It has been determined that the action may cause a significant adverse environmental impact. An EIS will be prepared by \_\_\_\_\_

(approximate date)

Signature of Preparing Officer \_\_\_\_\_

Title \_\_\_\_\_

Address \_\_\_\_\_

Telephone \_\_\_\_\_

(*Water Pollution Control Board; 327 IAC 11-1-5; filed Sep 24, 1987, 3:00 pm: 11 IR 726; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**Rule 2. Environmental Impact Statement; Activities of State Agencies**

- 327 IAC 11-2-1 Purpose of rule
- 327 IAC 11-2-2 Definitions
- 327 IAC 11-2-3 Environmental assessment; environmental impact statement

**327 IAC 11-2-1 Purpose of rule**

**Authority:** IC 13-7-7; IC 13-7-16-4  
**Affected:** IC 13-7-16-4

Sec. 1. It is the purpose of this rule (327 IAC 11-2) to outline reporting procedures which will assure environmental quality review of state agency plans or activities

department of environmental management. If it is found by the agency that the proposed action will significantly affect the environment, an environmental impact statement (EIS) will be prepared by the agency. A finding to the contrary will negate the need for an EIS. In this case, the environmental assessment shall constitute the final report to the department as required pursuant to IC 13-7-16-4.

(b) Environmental Impact Statement:

(1) Purpose – The purpose of an environmental impact statement is to relate environmental considerations to the inception of the planning process, to examine alternative means of achieving the intended purpose of the proposed action, to inform the public and other public agencies as early as possible about proposed actions that may significantly affect the quality of the environment, and to solicit comments which will assist the agency in the decision-making process in determining the environmental consequences of the proposed action.

(2) Content and format:

(A) Description and Purpose of Proposed Action:

This clause should describe the purpose and necessity of the proposed action, as well as any land disturbing activities, the structures contemplated, action phasing, and any other resultant changes to the environment caused either directly or indirectly by the proposed action. A statement should also be made on the relationship of the proposed action to present zoning and land use and also to future land use plans. In addition, the method for minimizing any adverse effects due to construction, or its phasing, should be described.

(i) Purpose (use) and objective.

(ii) Structures or other alterations to the natural environment.

(iii) Number of employees and anticipated visitors.

(iv) Land disturbing activities.

(v) Phasing of action.

(B) Listing of Alternatives: This clause should list alternatives as to size, location, etc. “no action” shall be listed as an alternative. Completion of clauses (C) through (K) shall be accomplished for each alternative.

(C) Present Characteristics: This clause should be used to describe the physical characteristics, population, vegetation, and habitation of the area directly affected and the general area surrounding the proposed action. If the area affected is similar to the surrounding area, one description would be sufficient. Most detail should be given to those aspects of the environment most affected by the proposed action. Less detail can be given to the other aspects.

(i) Area directly affected by proposed acquisitions, development, etc.

(AA) Location, size, and dimensions.

(BB) Existing development and prior man-made alterations to the natural environment.

(CC) Population.

(DD) Physical characteristics.

(aa) Topography.

(bb) Hydrology (including drainage characteristics).

(cc) Geology.

(dd) Soils.

(ee) Landforms.

(EE) Natural vegetation.

(aa) Types.

(bb) Density.

(cc) Use.

(FF) Wildlife/aquatic life.

(aa) Types.

(bb) Density.

(GG) Other attributes.

(aa) Historical areas.

(bb) Geological formations.

(cc) Archeological sites.

(dd) Other.

(ii) Area surrounding proposed site of action.

(AA) Existing development and prior man-made alterations to the natural environment.

(BB) Physical characteristics.

(CC) Population.

(DD) Natural vegetation.

(EE) Wildlife/aquatic life.

(FF) Other attributes.

(D) Growth Inducement Aspects: This clause should describe the potentiality and probability of the proposed action to induce or reduce growth in the area which might not otherwise occur, both short and long-term. The impact of these aspects should be included in clause (E).

(E) Impact of Proposed Action on Human and Natural Environment: In this clause, all effects that the action may have on both the human and natural environment should be described. It should be indicated whether the effects will be local, regional, or statewide in nature. List separately the effects caused by the proposed action alone and the effects caused by the growth inducement aspects of the proposed action. Effects should be quantified wherever possible and compared with existing conditions and applicable standards.

(i) Effect on human population.

(AA) Physical.

(aa) Noise.

(bb) Visual.

(1) Changes to natural environment.

(2) Proposed structures.

(cc) Air pollution.

- (dd) Water pollution.
  - (1) Surface water.
  - (2) Ground water.
  - (BB) Social.
    - (aa) Displacement.
    - (bb) Disruption of community and/or neighborhood.
  - (ii) Effect on natural environment.
    - (AA) Land form and/or water bodies.
      - (aa) Erosion.
      - (bb) Drainage.
    - (BB) Natural vegetation.
    - (CC) Wildlife/aquatic life habitats.
    - (DD) Cultural facilities.
      - (aa) Historical sites.
      - (bb) Archaeological sites.
      - (cc) Recreational sites or opportunities.
      - (dd) Scenic qualities.
- (F) Adverse Effects Which Cannot be Avoided: This clause should specifically identify those effects listed in clause (E) which may be adverse to the human and natural environment and cannot be avoided. These are distinguished from adverse effects which can be avoided by utilizing certain construction or other techniques.
- (G) Measures Proposed to Mitigate Adverse Effects of the Action: This clause is intended to describe the measures to be taken to mitigate adverse effects identified under clause (E) and not listed under clause (F). The description should include an evaluation as to the reduction of the adverse effects or the increase in beneficial effects. Environmentally enhanced features should be balanced against detrimental effects of the project.
  - (i) Human displacement.
    - (AA) Relocation assistance programs.
    - (BB) Other.
      - (ii) Disruption of community and/or neighborhood.
        - (AA) Access ways.
        - (BB) Other.
      - (iii) Noise.
        - (AA) Hours of operation.
        - (BB) Relationship to ambient noise level.
        - (CC) Special remedial measures, e.g., berms.
      - (iv) Visual.
        - (AA) Grading criteria.
        - (BB) Landscaping.
        - (CC) Architectural integration with site and surroundings.
      - (v) Air pollution.
        - (AA) Odor.
        - (BB) Dust.
        - (CC) Other air contaminants.
      - (vi) Impact on cultural facilities.
        - (AA) Replacement.
        - (BB) Relocation.
      - (vii) Natural vegetation.
        - (AA) Protection and retention of existing vegetation.
        - (BB) Replanting.
      - (viii) Wildlife/aquatic life habitats.
        - (H) Relationship Between Local Short-term Uses of Man's Environment and the Maintenance and Enhancement of Long-term Productivity: This clause requires an assessment of the proposed action for short-term and long-term effects. A determination should be made whether the present benefits will exist for future generations.
        - (I) Irreversible and Irrecoverable Commitment of Resources: This clause should describe those irreversible losses of resources (prime farm land, mineral resources, timber, water, etc.) which will result if the proposed action is implemented.
        - (J) Effect on the Use and Conservation of Energy Resources. This clause should include a discussion of the impact, if any, of the proposed action on increasing the existing rate of consumption or decreasing production of energy.
        - (K) Comparison of Alternatives: Compare the cost and environmental impact, short and long-term effects, irreversible and irretrievable commitment of resources, and effects on use and energy conservation, etc., for each alternative. Use tables for comparison, if possible.
    - (3) Solicitation of Comments from the Public and Public Agencies: The draft statement shall be circulated to local, state, and federal agencies and to the general public deemed by the agency to have an interest in the proposed action for comment in accordance with agency procedures. At least thirty [*sic.*] (30) days shall be allowed for submission of comments. At this stage, the document can be in draft form, prior to agency selection of the best alternative or final proposed action.
    - (4) Public Hearing: After receipt of comments from the above, the agency shall determine by vote of the governing body whether or not to conduct a public hearing on the environmental impact of the proposed action. As a basis for determination, the agency should consider:
      - (A) the seriousness of the adverse environmental impacts apparent at the time;
      - (B) whether or not the proposed action is known or has the potential to be controversial; and
      - (C) whether or not significant requests for a public hearing have been filed.

If the agency decides to conduct a public hearing, it shall be conducted for the purpose of explaining the environmental impacts, their significance, alternatives available, and mitigating measures which can be taken.

(5) Summary of and Response to Comments from the Public and Public Agencies. A summary of the comments from each commentator, followed by the agency response, and the attachment of the actual comments shall be included in the final statement. If a public hearing was not held, the reasons shall be stated. If a public hearing was held, the date, time, place, and attendance shall be stated.

(6) Evaluation of Alternatives. The alternatives listed in the draft statement, plus any prompted by comments from the public and public agencies, shall be evaluated according to the impact of each on the human and natural environment, utilizing the categories listed in clause (E). Each alternative should also be evaluated from the standpoint of irreversible and irretrievable commitment of natural and energy resources.

(7) Selection of Best Alternative. The best alternative shall be selected in accordance with the provisions of IC 13-1-10-2(b).

The rationale used for selecting the best alternative and rejecting the others shall be included.

(8) Submission of Statement to the Department. After selection of the best alternative, the agency may preliminarily adopt said alternative as its intended course of action. The environmental impact statement shall then be submitted to the department. The department shall review the statement from the standpoint of meeting the requirements of this rule (327 IAC 11-2) and shall act within sixty (60) days to accept the statement as submitted, accept with recommendations, or return the statement for revision.

(9) An Alternate Content and Format: When an EIS is to be prepared on the proposed adoption, revision or rescission of a law, regulation, policy, standard, or planning document, the following alternative format may be used.

(A) Description and Purpose of Proposed Action: This clause should describe the purpose and necessity of the proposed action. Included should be any legislative or other legal requirement mandating the proposed action. If the proposed action revises or rescinds an existing law, regulation, policy, standard or planning document, or portion thereof, the magnitude and impact of the revision or rescission should be explained.

(i) Purpose

(ii) Objective

(B) Growth Inducement Aspects: This clause should describe the potentiality and probability of the proposed action to induce or reduce growth which might not otherwise occur, both short and long term. The impact of these aspects should be included in clause (2)(E).

(D) Impact of Proposed Action of Human and

Natural Environment: Explain the impact of the proposed action on the following:

Human Health

Water Quality

Air Quality

Land

Noise

Traffic

Natural Vegetation

Wildlife

Scenic Qualities

Historical Sites

Archaeological Sites

Recreational Sites or Opportunities

Population Displacement

Disruption of Community or Neighborhood

(F) Adverse Effects which Cannot be Avoided: List any adverse impacts which are identified under clause (2)(E).

(G) Measures which are available to mitigate any adverse effects identified under clause (2)(E) and not listed under clause (2)(F).

(H) Relationship Between Local Short-term uses of Man's Environment and the Maintenance and Enhancement of Long-term Productivity: Same as clause (2)(H).

(I) Irreversible and Irretrievable Commitment or Resources: Same as clause (2)(I).

(J) Effect On the Use and Conservation of Energy Resources: Same as (2)(J).

(K) Comparison of Alternatives: Not Applicable.

The remainder of the format shall be the same as the standard format, except that clauses (6) and (7) shall not be considered applicable. (*Water Pollution Control Board; 327 IAC 11-2-3; filed Sep 24, 1987, 3:00 pm: 11 IR 729; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

## **ARTICLE 12. PUBLIC RECORDS (REPEALED)**

(*Repealed by Water Pollution Control Board; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1637*)

## **ARTICLE 12.1. PUBLIC RECORDS; CONFIDENTIAL INFORMATION; CONFIDENTIALITY AGREEMENTS**

Rule 1. Purpose and Applicability

Rule 2. Definitions

Rule 3. Access to Public Records

Rule 4. Confidentiality Claims

Rule 5. Types of Confidential Information

Rule 6. Determinations on Claim of Confidentiality

Rule 7. Appeals

Rule 8. Authorized Disclosure of Confidential Information

Rule 9. Wrongful Disclosure Penalties

Rule 10. Confidentiality Agreements

### Rule 1. Purpose and Applicability

327 IAC 12.1-1-1 Purpose

327 IAC 12.1-1-2 Applicability

#### 327 IAC 12.1-1-1 Purpose

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 5-14-3; IC 13-14-11-5

Sec. 1. The purpose of this article is to provide the following:

- (1) The policy of the board, to be followed by the department, in making public records available for public review and copying in accordance with IC 5-14-3 unless the information is determined to be confidential.
- (2) The provisions for protecting legitimate interests in the confidentiality of certain information.
- (3) The criteria to be used for determining the legitimacy of confidentiality claims in accordance with IC 5-14-3.
- (4) The procedures that the commissioner shall use in making determinations on the confidentiality of information.
- (5) The form of confidentiality agreements required by IC 13-14-11-5 from employees of the department and from persons under contract to the department.

*(Water Pollution Control Board; 327 IAC 12.1-1-1; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1631)*

#### 327 IAC 12.1-1-2 Applicability

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-14-11

Sec. 2. This article applies to the following:

- (1) Information received on or after the effective date of this article from a person requesting confidential treatment of that information. The information may be either:
  - (A) treated as a single unit of information even if the information is comprised of a collection of individual items of information; or
  - (B) separated into two (2) or more categories to afford different treatment to the information in each category because the claim covers only a portion of the information.
- (2) Employees of the department and contractors who:
  - (A) make the confidentiality determination;
  - (B) handle the confidential information; or
  - (C) maintain the file of confidential information.

*(Water Pollution Control Board; 327 IAC 12.1-1-2; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1631)*

### Rule 2. Definitions

327 IAC 12.1-2-1 Definitions

327 IAC 12.1-2-2 "Available to the public" defined

327 IAC 12.1-2-3 "Board" defined

327 IAC 12.1-2-4 "Claim of confidentiality" or "claim" defined

327 IAC 12.1-2-5 "Commissioner" defined

327 IAC 12.1-2-6 "Contaminant" defined

327 IAC 12.1-2-7 "Contractor" defined

327 IAC 12.1-2-8 "Department" defined

327 IAC 12.1-2-9 "Effluent data" defined

327 IAC 12.1-2-10 "Information" defined

327 IAC 12.1-2-11 "Person" defined

327 IAC 12.1-2-12 "Pollutant" defined

327 IAC 12.1-2-13 "Public record" defined

327 IAC 12.1-2-14 "Standard or limitation" defined

327 IAC 12.1-2-15 "Trade secret" defined

#### 327 IAC 12.1-2-1 Definitions

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-11-2

Sec. 1. The definitions in this rule apply throughout this article. *(Water Pollution Control Board; 327 IAC 12.1-2-1; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1631)*

#### 327 IAC 12.1-2-2 "Available to the public" defined

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 5-14-3

Sec. 2. "Available to the public" means a public record, as defined by IC 5-14-3, but excluding public records described in 327 IAC 12.1-3-1(b), that the department shall furnish to any member of the public upon request, or may otherwise make public. *(Water Pollution Control Board; 327 IAC 12.1-2-2; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1631)*

#### 327 IAC 12.1-2-3 "Board" defined

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-11-2-17

Sec. 3. "Board" means the water pollution control board. *(Water Pollution Control Board; 327 IAC 12.1-2-3; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1631)*

#### 327 IAC 12.1-2-4 "Claim of confidentiality" or "claim" defined

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 5-14-3-4; IC 13-14-11

Sec. 4. "Claim of confidentiality" or "claim" means a claim or assertion that information be treated as confidential because the information is excepted from disclosure under IC 5-14-3-4(a) or IC 5-14-3-4(b). *(Water Pollution Control Board; 327 IAC 12.1-2-4; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1631)*

**327 IAC 12.1-2-5 “Commissioner” defined****Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3**Affected:** IC 13-11-2-35

Sec. 5. “Commissioner” means the commissioner of the department. (*Water Pollution Control Board; 327 IAC 12.1-2-5; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1631*)

**327 IAC 12.1-2-6 “Contaminant” defined****Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3**Affected:** IC 13-14-11

Sec. 6. “Contaminant” means any physical, chemical, biological, or radiological substance or matter in water. (*Water Pollution Control Board; 327 IAC 12.1-2-6; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1631*)

**327 IAC 12.1-2-7 “Contractor” defined****Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3**Affected:** IC 13-14-11

Sec. 7. “Contractor” means:

(1) any:

- (A) person;
- (B) association;
- (C) partnership;
- (D) corporation;
- (E) business;
- (F) educational institution;
- (G) governmental body; or
- (H) other entity;

performing work under contract as an authorized representative of the department; and

(2) includes a subcontractor of the contractor and employees or officers of the contractor and subcontractor, which have been authorized by the department through the contract to have access to confidential information.

(*Water Pollution Control Board; 327 IAC 12.1-2-7; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1632*)

**327 IAC 12.1-2-8 “Department” defined****Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3**Affected:** IC 13-11-2-51

Sec. 8. “Department” means the department of environmental management. (*Water Pollution Control Board; 327 IAC 12.1-2-8; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1632*)

**327 IAC 12.1-2-9 “Effluent data” defined****Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3**Affected:** IC 13-11-2-51

Sec. 9. (a) “Effluent data” means, with reference to any

source of discharge of any pollutant, the following:

(1) Information necessary to determine the identity, amount, frequency, concentration, temperature, or other characteristics, to the extent related to water quality, of any pollutant that has been discharged by the source, or of any pollutant resulting from any discharge from the source, or any combination of the foregoing.

(2) Information necessary to determine the identity, amount, frequency, concentration, temperature, or other characteristics, to the extent related to water quality, of the pollutants that, under an applicable standard or limitation, the source was authorized to discharge, including, to the extent necessary for such purpose, a description of the manner or rate of operation of the source.

(3) A general description of the location or nature, or both, of the source to the extent necessary to identify the source and to distinguish it from other sources, including, to the extent necessary for such purposes, a description of the device, installation, or operation constituting the source.

(b) Notwithstanding subsection (a), the following information shall be considered to be effluent data only to the extent necessary to allow the department to disclose publicly that a source is or is not in compliance with an applicable standard or limitation, or to allow the department to demonstrate the feasibility, practicality, or attainability, or lack thereof, of an existing or proposed standard or limitation:

(1) Information concerning research, or the results of research, on any product, method, device, or installation, or any component thereof, that was produced, developed, installed, and used only for research purposes.

(2) Information concerning any product, method, device, or installation, or any component thereof, designed and intended to be marketed or used commercially but not yet so marketed or used.

(*Water Pollution Control Board; 327 IAC 12.1-2-9; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1632*)

**327 IAC 12.1-2-10 “Information” defined****Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3**Affected:** IC 5-14-3; IC 13-14-11

Sec. 10. “Information” means any of the following, regardless of physical form or characteristics, without limitation:

- (1) Written or printed material.
- (2) Data processing card decks, printouts, and tapes.
- (3) Maps.
- (4) Charts.

- (5) Paintings.
- (6) Photographs.
- (7) Drawings.
- (8) Engravings.
- (9) Sketches.
- (10) Samples.
- (11) Working notes and papers.
- (12) Reproductions of such things by any means or process.
- (13) Sound, voice, or electronic recordings in any form, in the possession of the department by which knowledge has been preserved and may be retrieved; and
- (14) Any other material.

(*Water Pollution Control Board; 327 IAC 12.1-2-10; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1632*)

### **327 IAC 12.1-2-11 “Person” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-11-2-158

Sec. 11. “Person” has the meaning set forth in IC 13-11-2-158(a). (*Water Pollution Control Board; 327 IAC 12.1-2-11; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1632*)

### **327 IAC 12.1-2-12 “Pollutant” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 5-14-3

Sec. 12. “Pollutant” means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water. The term does not mean the following:

- (1) Sewage from vessels or a discharge incidental to normal operation of a vessel of the Armed Forces as defined in Section 1322 of the Clean Water Act.
- (2) Water, gas, or other material that is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by Indiana only after determining that such injection or disposal will not result in the degradation of ground or surface water resources.

(*Water Pollution Control Board; 327 IAC 12.1-2-12; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1633*)

### **327 IAC 12.1-2-13 “Public record” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 5-14-3-2

Sec. 13. “Public record” has the meaning set forth in IC 5-14-3-2. (*Water Pollution Control Board; 327 IAC 12.1-2-13; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1633*)

### **327 IAC 12.1-2-14 “Standard or limitation” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 5-14-3

Sec. 14. “Standard or limitation” means any:

- (1) prohibition;
- (2) effluent limitation; or
- (3) toxic, pretreatment, or new source performance standard;

established or publically [*sic.*] proposed pursuant to the Clean Water Act or regulations under the Clean Water Act, including limitations or prohibitions in a permit issued or proposed by the department. (*Water Pollution Control Board; 327 IAC 12.1-2-14; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1633*)

### **327 IAC 12.1-2-15 “Trade secret” defined**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 24-2-3-2

Sec. 15. “Trade secret” has the meaning set forth in IC 24-2-3-2. (*Water Pollution Control Board; 327 IAC 12.1-2-15; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1633*)

## **Rule 3. Access to Public Records**

327 IAC 12.1-3-1 Access to public records

### **327 IAC 12.1-3-1 Access to public records**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 5-14-3-4; IC 5-14-3-8; IC 13-14-11

Sec. 1. (a) The provisions of IC 5-14-3 apply to all public records. All information received by the department is considered a public record.

(b) Public records are available to the public, except for any of the following public records:

- (1) Received under or supporting a claim of confidentiality.
- (2) Under review or appeal to determine if confidential under IC 5-14-3-4(a) or IC 5-14-3-4(b).
- (3) The commissioner has determined to be confidential under IC 5-14-3-4(a) or IC 5-14-3-4(b).

(c) Public records that are available to the public may be copied by the department upon payment of a fee provided for in IC 5-14-3-8. The fee shall be paid to the cashier’s office at the department. (*Water Pollution Control Board; 327 IAC 12.1-3-1; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1633*)

#### Rule 4. Confidentiality Claims

327 IAC 12.1-4-1 Confidentiality claims

##### 327 IAC 12.1-4-1 Confidentiality claims

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 5-14-3-4; IC 13-14-11-3; IC 24-2-3-2

Sec. 1. (a) A person submitting information to the department for which confidential treatment is requested shall make a written claim of confidentiality under subsections (c) and (d) at the time of submittal of the information.

(b) A person may request confidential treatment of information at the time the information is acquired through the actions of the department, such as inspections. The written claim for confidential treatment may be broad, but must be sufficiently clear to allow for accurate identification of the information claimed to be confidential. The supporting information required under subsection (d) must be submitted to the commissioner within five (5) working days from the time the information claimed as confidential is acquired by the department.

(c) A person submitting a claim of confidentiality shall designate and segregate the information and the supporting information to which the claim applies in a manner that is sufficiently clear to allow the department to identify all confidential claim materials. One (1) of the following methods shall be used to indicate that the information and any of the supporting information under subsection (d) is claimed as confidential:

- (1) Attaching a cover sheet instructing which information is to be treated as confidential.
- (2) Marking each page or item of information as:
  - (A) confidential;
  - (B) confidential claim material;
  - (C) trade secrets; or
  - (D) confidential business information.

(d) The person submitting the claim shall provide supporting information to show that the information claimed as confidential is entitled to confidential treatment under IC 5-14-3, including the following:

- (1) State that the information is a specific type of confidential information under IC 5-14-3-4(a) and IC 13-14-11-3(a)(1) or IC 5-14-3-4(b) and IC 13-14-11-3(a)(2). If the information is confidential under IC 5-14-3-4(a)(4), the person submitting the claim shall provide a narrative statement or documents supporting the claim that the information meets the necessary elements of a trade secret as defined at IC 24-2-3-2.
- (2) State whether the information has previously been determined to be confidential by the commissioner.
- (3) Indicate the portion of the supporting information claimed as confidential as specified in subsection (c).

(4) Specify the period of time for which confidentiality is requested if the period is to be other than seventy-five (75) years as provided in IC 5-14-3-4(e).

(5) Whenever the claim is based on the commissioner's discretionary power to grant confidential status to information under IC 5-14-3-4(b) and IC 13-14-11-3(a)(2), state all of the following:

(A) The statute, rule, permit, or other authority that requires the submission of such information.

(B) Facts demonstrating that the information may be treated as confidential under IC 5-14-3-4(b).

(e) The information and supporting information claimed as confidential shall be treated as confidential until the commissioner makes a determination under 327 IAC 12.1-6-1. (*Water Pollution Control Board; 327 IAC 12.1-4-1; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1633*)

#### Rule 5. Types of Confidential Information

327 IAC 12.1-5-1 Information accessible by the public

##### 327 IAC 12.1-5-1 Information accessible by the public

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 5-14-3-4

Sec. 1. In accordance with IC 5-14-3-4(a), the following types of information shall not be determined to be confidential:

- (1) Effluent data.
- (2) A standard or limitation.
- (3) Information that deals with the existence, absence, or level of contaminants in drinking water.

(*Water Pollution Control Board; 327 IAC 12.1-5-1; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1634; errata filed Mar 16, 2000, 1:35 p.m.: 23 IR 1656*)

#### Rule 6. Determinations on Claim of Confidentiality

327 IAC 12.1-6-1 Determinations

327 IAC 12.1-6-2 Request for additional supporting information

327 IAC 12.1-6-3 Approval determination

327 IAC 12.1-6-4 Denial of claim

327 IAC 12.1-6-5 Modification of determinations

##### 327 IAC 12.1-6-1 Determinations

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 4-21.5; IC 5-14-3-4; IC 13-14-11

Sec. 1. The commissioner shall make a determination on a claim of confidentiality submitted after the effective date of this article in accordance with this article. The determination shall be made in accordance with IC 5-14-3-4 and IC 13-14-11. (*Water Pollution Control Board; 327 IAC 12.1-6-1; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1634*)

### 327 IAC 12.1-6-2 Request for additional supporting information

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 4-21.5-3-1; IC 13-14-11

Sec. 2. (a) The commissioner may request additional supporting information regarding a claim of confidentiality. Any additional supporting information claimed as confidential shall be treated as confidential until the commissioner makes a determination as required by section 1 of this rule.

(b) If the commissioner intends to make a determination to deny a claim of confidentiality, the commissioner shall notify the person in writing by certified mail, with return receipt requested, stating the following:

(1) Additional supporting information must be submitted in accordance with 327 IAC 12.1-4-1(c).

(2) The person has fifteen (15) days from the date of receipt of the notice to respond.

(3) A submission shall be completed in the time frames and by the methods specified by IC 4-21.5-3-1(f). The person shall notify the department by telephone or facsimile within the fifteen (15) day period under subdivision (2) that additional supporting information has been mailed or deposited with a private carrier.

(4) Failure to submit any additional supporting information within fifteen (15) days under subdivision (2) or within the time allowed under subsection (d) to provide additional information in support of the claim, will result in a determination based on the information and any supporting information already received.

(5) Any additional supporting information claimed as confidential shall be treated as confidential until the commissioner makes a determination as required by section 1 of this rule.

(c) The commissioner shall make a determination after receipt of the additional supporting information submitted under subsection (b). The commissioner shall notify the person under subsection (b) of the intent to deny a claim of confidentiality only once before making a determination under section 3 or 4 of this rule. If the person fails to submit additional supporting information in accordance with subsection (b), the commissioner will make a determination based on the information and any supporting information already received.

(d) The commissioner may approve an extension of time for submitting additional supporting information if the person makes a request in writing within the fifteen (15) days allowed in subsections [subsection] (b)(2) and (b)(3). The extension will not exceed fifteen (15) days. (*Water Pollution Control Board; 327 IAC 12.1-6-2; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1634*)

### 327 IAC 12.1-6-3 Approval determination

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 4-21.5; IC 13-14-11

Sec. 3. (a) If the commissioner determines that the information shall be held confidential for the full period requested by the person who made the claim under 327 IAC 12.1-4-1(d), the commissioner shall do all of the following:

(1) Notify the person in writing of the determination.

(2) Maintain the information as confidential for the period requested under 327 IAC 12.1-4-1(d) unless ordered by a court of competent jurisdiction to permit access to the information for inspection and copying.

(b) If the commissioner determines that the information is confidential but the period of confidential treatment shall be shorter than that requested by the person under 327 IAC 12.1-4-1(d), the commissioner shall notify the person in writing by certified mail, with return receipt requested stating the following:

(1) The basis for the determination.

(2) The period of time of confidentiality, after which the information will be available to the public.

(3) The right to appeal the commissioner's determination.

(4) The procedure for appealing the commissioner's determination, including the time period provided by IC 4-21.5.

(*Water Pollution Control Board; 327 IAC 12.1-6-3; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1635*)

### 327 IAC 12.1-6-4 Denial of claim

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 4-21.5; IC 13-14-11

Sec. 4. If the commissioner determines that the information is not confidential based on 327 IAC 12.1-4, the commissioner shall notify the person who submitted the claim of such determination. The notice shall be in writing, sent certified mail, with return receipt requested, and shall state the following:

(1) The basis for the determination.

(2) Notice that the person may appeal the commissioner's determination.

(3) The procedure for appealing the commissioner's determination, including the time period provided by IC 4-21.5.

(4) Notice that if the determination is timely appealed, the information shall be treated as confidential until the petition for review is denied or the commissioner is ordered not to treat the information as confidential.

(5) Notice that unless the person timely appeals the determination, the information shall be made available to the public.

(*Water Pollution Control Board; 327 IAC 12.1-6-4; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1635*)

### **327 IAC 12.1-6-5 Modification of determinations**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 5-14-3; IC 13-14-11

Sec. 5. (a) The commissioner's determination that information is confidential shall continue in effect for the period of time specified in the determination under section 3 of this rule unless the commissioner issues a revised determination stating that the determination under section 1 of this rule no longer accurately describes the information's confidentiality due to any of the following:

- (1) Change in applicable law.
- (2) Newly-discovered or changed facts.
- (3) A clearly erroneous previous determination.

(b) If the commissioner concludes that such a determination under section 1 of this rule is of questionable validity, the commissioner shall do the following:

- (1) Inform the person in writing by certified mail with return receipt requested.
- (2) Afford the person an opportunity to furnish additional information on pertinent issues on the matter in accordance with sections 2(b)(1) through 2(b)(5) and section 2(d) of this rule.

(c) After consideration of any information timely submitted under subsection (b)(2), the commissioner may make either of the following determinations:

- (1) The information is not confidential.
- (2) The period of entitlement to treatment as confidential information shall end at an earlier date than determined under section 1 of this rule.

(d) After the determination provided for in subsection (c) is made, the commissioner shall notify the person in writing by certified mail with return receipt requested stating one (1) of the following:

- (1) That the claim of confidentiality has been approved as provided for in section 3 of this rule.
- (2) That the claim of confidentiality has been denied as provided for in section 4 of this rule.

(*Water Pollution Control Board; 327 IAC 12.1-6-5; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1635*)

### **Rule 7. Appeals**

327 IAC 12.1-7-1 Administrative appeal

327 IAC 12.1-7-2 Judicial review

### **327 IAC 12.1-7-1 Administrative appeal**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 4-21.5-3

Sec. 1. An appeal of a determination shall be:

- (1) in accordance with IC 4-21.5-3 and rules of the

office of environmental adjudication; and  
(2) made by filing a written petition for review with the office of environmental adjudication in accordance with IC 4-21.5-3.

A copy of the petition shall be served on the commissioner concurrent with such filing. (*Water Pollution Control Board; 327 IAC 12.1-7-1; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1636*)

### **327 IAC 12.1-7-2 Judicial review**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 4-21.5-5

Sec. 2. Judicial review of a final order of the environmental law judge shall be in accordance with IC 4-21.5-5. (*Water Pollution Control Board; 327 IAC 12.1-7-2; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1636*)

### **Rule 8. Authorized Disclosure of Confidential Information**

327 IAC 12.1-8-1 Authorized disclosure of confidential information

### **327 IAC 12.1-8-1 Authorized disclosure of confidential information**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-14-11-6

Sec. 1. Confidential information may be disclosed by the department only in accordance with IC 13-14-11-6. (*Water Pollution Control Board; 327 IAC 12.1-8-1; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1636*)

### **Rule 9. Wrongful Disclosure Penalties**

327 IAC 12.1-9-1 Wrongful disclosure penalties

### **327 IAC 12.1-9-1 Wrongful disclosure penalties**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 5-14-3-3; IC 5-14-3-10; IC 13-14-11; IC 35-50-3-2

Sec. 1. Penalties for wrongful disclosure of confidential information are contained in IC 5-14-3-10. (*Water Pollution Control Board; 327 IAC 12.1-9-1; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1636*)

### **Rule 10. Confidentiality Agreements**

327 IAC 12.1-10-1 Confidentiality agreements

### **327 IAC 12.1-10-1 Confidentiality agreements**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3; IC 13-14-11-5

**Affected:** IC 5-14-3-10

Sec. 1. (a) Persons employed, contracted, or subcontracted by the department, prior to accessing or being granted access to confidential information, must execute

a confidentiality agreement enforceable by:

- (1) the state; and
- (2) the submitter of the information.

(b) The following is the confidentiality agreement form for state employees:

**CONFIDENTIALITY AGREEMENT  
FOR STATE EMPLOYEES**

I understand that I will have access to certain confidential information submitted to the Indiana Department of Environmental Management pursuant to state or federal statute or rule. This access has been granted in accordance with my official duties as an employee of the state of Indiana.

I understand that confidential information may not be disclosed except as authorized by rules of the board as contained in 327 IAC 12.1. My obligation not to disclose such confidential information includes disclosure to any other employee, officer, or authorized representative of the state or of the United States unless such employee, officer, or authorized representative is concerned with carrying out or implementing IC 13 or when the information is relevant in any proceeding related to enforcement.

I understand that, under Indiana statute IC 5-14-3-10, I am liable for a possible fine of up to five thousand dollars (\$5,000) or imprisonment for up to one year, or both, if I knowingly or intentionally disclose confidential information to any person not authorized to receive it.

I understand that I may be subject to disciplinary action for violation of this agreement with penalties up to and including dismissal.

I understand that this agreement is enforceable by the state of Indiana and by the person who submits confidential information.

I agree that I will treat any confidential information furnished to me as confidential as established by the department.

(Signature) \_\_\_\_\_

\_\_\_\_\_  
Name (Typed)

\_\_\_\_\_  
Date

(c) The following is the confidentiality agreement form for employees or officers of contractors:

**CONFIDENTIALITY AGREEMENT  
FOR CONTRACTED EMPLOYEE OR OFFICER**

I understand that as an employee or officer of \_\_\_\_\_, a contractor performing work for the Indiana Department of Environmental Management, I will have access to certain confidential information. This access has been granted to me in order that I can perform my work under the contract.

I understand that such confidential information may not be disclosed by me except as authorized by a state or federal statute or rule. My obligation not to disclose such confidential information includes disclosure to any employee of the Indiana Department of Environmental

Management, any employee or officer of any contractor, or any subcontractor unless such employee or officer has executed a confidentiality agreement.

I understand that, under Indiana statute IC 5-14-3-10, I am liable for a possible fine of up to five thousand dollars (\$5,000) or imprisonment for up to one year, or both, if I knowingly or intentionally disclose confidential information to any person not authorized to receive it. In addition, I understand that I may be subject to disciplinary action for violation of this agreement up to and including dismissal.

I understand that this agreement is enforceable by the state of Indiana and by the person who submits confidential information.

I agree that I will treat any confidential information furnished to me as confidential as established by the department.

(Signature) \_\_\_\_\_

\_\_\_\_\_  
Name (Typed)

\_\_\_\_\_  
Date

*(Water Pollution Control Board; 327 IAC 12.1-10-1; filed Mar 9, 2000, 7:47 a.m.: 23 IR 1636; errata filed Mar 16, 2000, 1:35 p.m.: 23 IR 1656)*

**ARTICLE 13. STATE REVOLVING LOAN  
FUND**

- Rule 1. General Provisions
- Rule 2. Definitions
- Rule 3. Uses of the State Revolving Fund (SRF)
- Rule 4. Criteria for Determining Financial Assistance Eligibility
- Rule 5. Priorities for the Obligation of the State Revolving Fund (SRF)
- Rule 6. Program Standards
- Rule 7. Due Diligence
- Rule 8. Facilities Planning (*Repealed*)
- Rule 8.1. Preliminary Engineering Report
- Rule 9. Environmental Impact Assessment
- Rule 10. Sewer Charge System/Sewer Use Ordinance
- Rule 11. Procurement
- Rule 12. Construction
- Rule 13. Financing
- Rule 14. Financial Assistance Conditions
- Rule 15. Disbursement of Loan Proceeds
- Rule 16. Reservation of Rights
- Rule 17. Rights of Review
- Rule 18. Hardship Grant Program

**Rule 1. General Provisions**

327 IAC 13-1-1 Purpose

**327 IAC 13-1-1 Purpose**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 1. The purpose of this article is to implement the

wastewater state revolving fund (SRF) established by IC 13-18-13 and accomplish the following:

- (1) Facilitate statewide compliance with state and federal water quality standards through construction of treatment works.
- (2) Provide political subdivisions in Indiana with low-cost financial assistance in order to construct necessary and environmentally sound treatment works.
- (3) Establish a fiscally self-sufficient program as a continuing source of funding for improvement and protection of water quality and public health.
- (4) Conduct any other activity permitted by the Clean Water Act.

*(Water Pollution Control Board; 327 IAC 13-1-1; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1686; filed Aug 28, 1998, 4:53 p.m.: 22 IR 27; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

## Rule 2. Definitions

- 327 IAC 13-2-1 Applicability
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327 IAC 13-2-31 "Wastewater SRF" defined

### 327 IAC 13-2-1 Applicability

Authority: IC 13-1-3-4; IC 13-7-7-1  
Affected: IC 4-23-21

Sec. 1. The definitions in this rule apply throughout this article. (*Water Pollution Control Board; 327 IAC 13-2-1; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1686; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 13-2-1.5 "Agency" defined

Authority: IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18  
Affected: IC 4-12-1-3; IC 13-11-2; IC 13-18-13

Sec. 1.5. "Agency" means the budget agency created under IC 4-12-1-3. (*Water Pollution Control Board; 327 IAC 13-2-1.5; filed Aug 28, 1998, 4:53 p.m.: 22 IR 27; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 13-2-2 "Authorized representative" defined

Authority: IC 13-1-3-4; IC 13-7-7-1  
Affected: IC 4-23-21

Sec. 2. "Authorized representative" means a person who has been designated by the governing board of a political subdivision to sign documents on behalf of that board. (*Water Pollution Control Board; 327 IAC 13-2-2; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1686; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 13-2-3 "Best management practice" defined

Authority: IC 13-1-3-4; IC 13-7-7-1  
Affected: IC 4-23-21

Sec. 3. "Best management practice" means a practice or combination of practices which have been determined to be the most effective and practicable means of preventing or reducing water pollution to a level compatible with water quality goals. (*Water Pollution Control Board; 327 IAC 13-2-3; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1686; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 13-2-4 "Board" defined

Authority: IC 13-1-3-4; IC 13-7-7-1  
Affected: IC 4-23-21

Sec. 4. "Board" means the governing body of the political subdivision seeking financial assistance. (*Water Pollution Control Board; 327 IAC 13-2-4; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1686; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 13-2-5 "Bond" defined

**Authority:** IC 13-1-3-4; IC 13-7-7-1  
**Affected:** IC 4-23-21

Sec. 5. “Bond” is the debt instrument which evidences the long term financing undertaken by a political subdivision in accordance with Indiana statutes for incurring debt. (*Water Pollution Control Board; 327 IAC 13-2-5; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1686; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-2-6 “Clean Water Act” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18  
**Affected:** IC 13-11-2; IC 13-18-13

Sec. 6. “Clean Water Act” means the Water Pollution Control Act, 33 U.S.C. 1251 et seq., in effect on January 1, 1989, and amended on December 16, 1996\*.

\*The Clean Water Act may be found at 33 U.S.C. 1251 and is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 13-2-6; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1687; filed Aug 28, 1998, 4:53 p.m.: 22 IR 27; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-2-7 “Commissioner” defined**

**Authority:** IC 13-1-3-4; IC 13-7-7-1  
**Affected:** IC 4-23-21

Sec. 7. “Commissioner” means the commissioner of the department of environmental management. (*Water Pollution Control Board; 327 IAC 13-2-7; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1687; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-2-8 “Debt service” defined (Repealed)**

Sec. 8. (*Repealed by Water Pollution Control Board; filed Aug 28, 1998, 4:53 p.m.: 22 IR 48*)

### **327 IAC 13-2-9 “Debt service reserve” defined (Repealed)**

Sec. 9. (*Repealed by Water Pollution Control Board; filed Aug 28, 1998, 4:53 p.m.: 22 IR 48*)

### **327 IAC 13-2-10 “Department” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18  
**Affected:** IC 13-11-2; IC 13-13-1-1; IC 13-18-13

Sec. 10. “Department” means the Indiana department of environmental management created under IC 13-13-1-1. (*Water Pollution Control Board; 327 IAC 13-2-10; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1687; filed Aug 28, 1998, 4:53 p.m.: 22 IR 28; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-2-10.5 “Due diligence” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18  
**Affected:** IC 13-11-2; IC 13-18-13

Sec. 10.5. “Due diligence” means a process that provides financial disclosure, advising the state of economic matters related to the political subdivision and their ability to repay the loan. (*Water Pollution Control Board; 327 IAC 13-2-10.5; filed Aug 28, 1998, 4:53 p.m.: 22 IR 28; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-2-11 “EA” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18  
**Affected:** IC 13-11-2; IC 13-18-13

Sec. 11. “EA” means an environmental assessment that is a document prepared by the department upon completion of a preliminary engineering report that:

- (1) describes the possible treatment works alternatives;
- (2) describes the potential environmental impacts of the feasible alternatives;
- (3) acts as a public record of the documentation and review process used to arrive at a preliminary decision as to whether an environmental impact statement is necessary; and
- (4) provides information adequate for the public to comment on the proposed project.

(*Water Pollution Control Board; 327 IAC 13-2-11; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1687; filed Aug 28, 1998, 4:53 p.m.: 22 IR 28; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-2-12 “EIS” defined**

**Authority:** IC 13-1-3-4; IC 13-7-7-1  
**Affected:** IC 4-23-21

Sec. 12. “EIS” means an environmental impact statement which is a document prepared if it is determined by the department that the construction or operation, or both, of a proposed treatment works will result in significant environmental impacts. The purpose, content, and format of an EIS shall be in accordance with 327 IAC 11-2-3(b)(1) through 327 IAC 11-2-3(b)(2). The preparation of an EIS shall be the responsibility of the department.

(*Water Pollution Control Board; 327 IAC 13-2-12; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1687; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-13 “Environmental information document” defined (Repealed)**

Sec. 13. (*Repealed by Water Pollution Control Board; filed Aug 28, 1998, 4:53 p.m.: 22 IR 48*)

**327 IAC 13-2-14 “Facilities plan” defined (Repealed)**

Sec. 14. (*Repealed by Water Pollution Control Board; filed Aug 28, 1998, 4:53 p.m.: 22 IR 48*)

**327 IAC 13-2-15 “Financial assistance” defined**

Authority: IC 13-1-3-4; IC 13-7-7-1  
Affected: IC 4-23-21

Sec. 15. “Financial assistance” means the types of financial assistance authorized by the Clean Water Act, 33 U.S.C. 1381 et seq. (*Water Pollution Control Board; 327 IAC 13-2-15; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1687; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-16 “Financial assistance agreement” defined**

Authority: IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18  
Affected: IC 4-13-2-14.1; IC 13-11-2; IC 13-18-13

Sec. 16. “Financial assistance agreement” means a contract document approved pursuant to IC 4-13-2-14.1 that contains the covenants between the political subdivision, and the agency concerning receipt of financial assistance from the wastewater SRF. (*Water Pollution Control Board; 327 IAC 13-2-16; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1688; filed Aug 28, 1998, 4:53 p.m.: 22 IR 28; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-17 “Financial assistance closing” defined**

Authority: IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18  
Affected: IC 4-13-2-14.1; IC 13-11-2; IC 13-18-13

Sec. 17. “Financial assistance closing” means the occasion in which a political subdivision tenders its note, bond, guaranty agreement, or credit enhancement agreement to the agency, and the agency provides a portion, or all, of the wastewater SRF financial assistance to the

political subdivision. (*Water Pollution Control Board; 327 IAC 13-2-17; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1688; filed Aug 28, 1998, 4:53 p.m.: 22 IR 28; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-18 “FNSEI” defined**

Authority: IC 13-1-3-4; IC 13-7-7-1  
Affected: IC 4-23-21

Sec. 18. “FNSEI” means a finding of no significant environmental impact which is a finding of the department, issued with an EA, that the construction and operation of a proposed treatment works will not significantly impact the environment. (*Water Pollution Control Board; 327 IAC 13-2-18; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1688; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-18.5 “Hardship grant” defined**

Authority: IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18  
Affected: IC 13-11-2; IC 13-18-13

Sec. 18.5. “Hardship grant” means a federal grant to provide assistance to improve wastewater treatment services in small, economically disadvantaged rural communities where such services are currently inadequate. (*Water Pollution Control Board; 327 IAC 13-2-18.5; filed Aug 28, 1998, 4:53 p.m.: 22 IR 28; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-19 “Hardship community” defined (Repealed)**

Sec. 19. (*Repealed by Water Pollution Control Board; filed Aug 28, 1998, 4:53 p.m.: 22 IR 48*)

**327 IAC 13-2-20 “IUP” defined**

Authority: IC 13-1-3-4; IC 13-7-7-1  
Affected: IC 4-23-21

Sec. 20. “IUP” means an intended use plan identifying the intended uses of the state revolving fund and describing how those uses support the goals of the program. (*Water Pollution Control Board; 327 IAC 13-2-20; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1688; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-21 “Loan” defined**

Authority: IC 13-1-3-4; IC 13-7-7-1  
Affected: IC 4-23-21

Sec. 21. “Loan” means purchasing the notes or bonds of a political subdivision to finance a treatment works or

refinancing an existing debt obligation where debt was incurred and building began after March 7, 1985, as opposed to providing other types of financial assistance eligible under the Clean Water Act. (*Water Pollution Control Board; 327 IAC 13-2-21; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1688; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-22 “Operation and maintenance” defined**

**Authority:** IC 13-1-3-4; IC 13-7-7-1  
**Affected:** IC 4-23-21

Sec. 22. “Operation and maintenance” includes the activities required to assure the continuing dependable and economic function of the treatment works, including maintaining compliance with National Pollutant Discharge Elimination System permits, as follows:

(1) Operation is the control and management of the unit processes and equipment which make up the treatment works. This includes financial and personnel management, records, reporting, laboratory control, process control, safety and emergency operation planning, and operating activities.

(2) Maintenance is the preservation of the functional integrity and efficiency of equipment and structures by maintaining systems of preventive and corrective maintenance (includes replacement).

(*Water Pollution Control Board; 327 IAC 13-2-22; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1688; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-23 “Political subdivision” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18  
**Affected:** IC 13-11-2-164; IC 13-18-13

Sec. 23. “Political subdivision” has the meaning set forth in IC 13-11-2-164. (*Water Pollution Control Board; 327 IAC 13-2-23; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1689; filed Aug 28, 1998, 4:53 p.m.: 22 IR 29; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-24 “PPL” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18  
**Affected:** IC 13-11-2; IC 13-18-13

Sec. 24. “PPL” means a project priority list which is generated through the department and updated annually and amended quarterly. It ranks, in descending priority of need, political subdivisions which have indicated a need for the construction of treatment works. (*Water Pollution Control Board; 327 IAC 13-2-24; filed Apr 26, 1990,*

*10:45 a.m.: 13 IR 1689; filed Aug 28, 1998, 4:53 p.m.: 22 IR 29; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-24.3 “Preliminary engineering report” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18  
**Affected:** IC 13-11-2; IC 13-18-13

Sec. 24.3. “Preliminary engineering report” means the document submitted by the political subdivision that provides the information necessary for the department to determine the technical, economic, and environmental adequacy of the proposed treatment works. (*Water Pollution Control Board; 327 IAC 13-2-24.3; filed Aug 28, 1998, 4:53 p.m.: 22 IR 29; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-24.7 “Program” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18  
**Affected:** IC 13-11-2-172; IC 13-18-13

Sec. 24.7. “Program” means the wastewater revolving loan program as defined in IC 13-11-2-172. (*Water Pollution Control Board; 327 IAC 13-2-24.7; filed Aug 28, 1998, 4:53 p.m.: 22 IR 29; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-25 “Project” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18  
**Affected:** IC 13-11-2; IC 13-18-13

Sec. 25. “Project” means the activities or tasks the department identifies in the preliminary engineering report for which the political subdivision may commit and expend funds. (*Water Pollution Control Board; 327 IAC 13-2-25; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1689; filed Aug 28, 1998, 4:53 p.m.: 22 IR 29; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-26 “ROD” defined**

**Authority:** IC 13-1-3-4; IC 13-7-7-1  
**Affected:** IC 4-23-21

Sec. 26. “ROD” means a record of decision which is a statement issued by the department upon the completion of an EIS which includes a determination of whether to proceed with a proposed project. (*Water Pollution Control Board; 327 IAC 13-2-26; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1689; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-26.5 “Sewer charge system” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 26.5. “Sewer charge system” means a set of documents submitted by the political subdivision to the agency that includes a rate study, sewer rate ordinance, and any interlocal agreements or contracts that will determine the financial and legal capability associated with the operation and use of the treatment works project financed by the wastewater SRF. (*Water Pollution Control Board; 327 IAC 13-2-26.5; filed Aug 28, 1998, 4:53 p.m.: 22 IR 29; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-27 “SRF” defined (Repealed)**

Sec. 27. (*Repealed by Water Pollution Control Board; filed Aug 28, 1998, 4:53 p.m.: 22 IR 48*)

**327 IAC 13-2-28 “Substantial completion of construction” defined**

**Authority:** IC 13-1-3-4; IC 13-7-7-1

**Affected:** IC 4-23-21

Sec. 28. “Substantial completion of construction” means the date determined by the department when all but minor components of a project have been built, all equipment is operational, and the project is capable of functioning as designed. (*Water Pollution Control Board; 327 IAC 13-2-28; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1689; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-29 “Substantive environmental impact” defined**

**Authority:** IC 13-1-3-4; IC 13-7-7-1

**Affected:** IC 4-23-21

Sec. 29. “Substantive environmental impact” means a significant adverse change in the environment resulting directly or indirectly from the construction, operation, upgrade, or expansion of a treatment works. (*Water Pollution Control Board; 327 IAC 13-2-29; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1689; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-30 “Treatment works” defined**

**Authority:** IC 13-1-3-4; IC 13-7-7-1

**Affected:** IC 4-23-21

Sec. 30. “Treatment works” means any devices and

systems for storage, transport, treatment, recycling, and reclamation of municipal sewage, domestic sewage, or liquid industrial wastes used to implement the Clean Water Act, or necessary to recycle or reuse water at the most economical cost over the design life of the works. These include one (1) or all of the following:

(1) Intercepting sewers, outfall sewers, sewage collection systems, individual systems, pumping, power, and other equipment and their appurtenances.

(2) Extensions, improvements, remodeling, additions, and alterations thereof.

(3) Elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities.

(4) Any works including the land that will be an integral part of the treatment process or is used for ultimate disposal of residue resulting from such treatment (including land for composting sludge, temporary storage of such compost, and land used for the storage of treated wastewater in land treatment systems before land application).

(5) Any other method or system for preventing, abating, reducing, storing, treating, separating, or disposing of municipal waste or industrial waste, including waste in combined storm water and sanitary sewer systems. (*Water Pollution Control Board; 327 IAC 13-2-30; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1689; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 13-2-31 “Wastewater SRF” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 31. “Wastewater SRF” means the wastewater state revolving fund as authorized by the Clean Water Act, 33 U.S.C. 1381 et seq., and IC 13-18-13. (*Water Pollution Control Board; 327 IAC 13-2-31; filed Aug 28, 1998, 4:53 p.m.: 22 IR 29; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**Rule 3. Uses of the State Revolving Fund (SRF)**

327 IAC 13-3-1 Wastewater SRF program expenditures

**327 IAC 13-3-1 Wastewater SRF program expenditures**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 1. The wastewater SRF shall be used to do the following:

(1) Provide financial assistance for the construction of treatment works projects and all other activities that are

permitted by the Clean Water Act.

(2) Refund outstanding indebtedness of political subdivisions eligible for repurchase by the agency under the Clean Water Act.

(3) Pay reasonable direct and indirect program administration costs.

*(Water Pollution Control Board; 327 IAC 13-3-1; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1689; filed Aug 28, 1998, 4:53 p.m.: 22 IR 29; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **Rule 4. Criteria for Determining Financial Assistance Eligibility**

327 IAC 13-4-1 Project priority list

327 IAC 13-4-2 Intended use plan

#### **327 IAC 13-4-1 Project priority list**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 1. The agency shall award wastewater SRF financial assistance for treatment works projects and any other projects covered under the Clean Water Act to a political subdivision only for eligible costs of projects listed on the department's PPL. *(Water Pollution Control Board; 327 IAC 13-4-1; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1690; filed Aug 28, 1998, 4:53 p.m.: 22 IR 30; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **327 IAC 13-4-2 Intended use plan**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13-3

Sec. 2. (a) The department and the agency shall prepare annually an IUP, including a PPL and a nonpoint source project list pursuant to the Clean Water Act, to be effective on the first day of the state's fiscal year.

(b) The following documents shall be included as appendices of the IUP and are subject to modification in accordance with this section:

(1) The PPL.

(2) A document describing the project ranking process.

(3) A list of nonpoint source projects.

(c) The department shall adopt an IUP after holding a public meeting on the plan and responding to substantial comments received. The department shall amend the IUP to add eligible projects or change or amend listed projects as necessary on a quarterly basis after pursuing a public notification process.

(d) Placement in the PPL shall be based on the following criteria:

(1) The project must be consistent with the PPL and

uses of the wastewater SRF as identified in the CWA and IC 13-18-13-3.

(2) A political subdivision must submit general project information on an application form provided by the department that is signed by the political subdivision's authorized representative and includes relevant information as follows:

(A) A general description of the project.

(B) An appropriate cost estimate for different phases of the project.

(C) An estimated initiation date and completion date for each phase of the project.

*(Water Pollution Control Board; 327 IAC 13-4-2; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1690; filed Aug 28, 1998, 4:53 p.m.: 22 IR 30; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **Rule 5. Priorities for the Obligation of the State Revolving Fund (SRF)**

327 IAC 13-5-1 Initial priority *(Repealed)*

#### **327 IAC 13-5-1 Initial priority *(Repealed)***

Sec. 1. *(Repealed by Water Pollution Control Board; filed Aug 28, 1998, 4:53 p.m.: 22 IR 48)*

#### **Rule 6. Program Standards**

327 IAC 13-6-1 Criteria

#### **327 IAC 13-6-1 Criteria**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 1. Loans and other available SRF financial assistance shall be made only to a political subdivision that meets all of the following criteria:

(1) Owns, operates, and maintains, or causes to be operated and maintained, a treatment works for its useful life.

(2) Demonstrates financial, managerial, technical, and legal capability to meet the terms of the financial assistance agreement and to operate and maintain the treatment works for its useful life.

(3) Agrees to maintain financial records in accordance with generally accepted government accounting principles for utilities and to provide a copy of audits of the treatment work's financial records as conducted by the state board of accounts or other certified independent auditor during the term.

(4) Agrees to allow inspection by the agency of the financial records related to the treatment works during the term of the financial assistance agreement.

(5) Meets all other wastewater SRF program requirements.

*(Water Pollution Control Board; 327 IAC 13-6-1; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1690; filed Aug 28, 1998, 4:53 p.m.: 22 IR 30; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 7. Due Diligence**

327 IAC 13-7-1 Due diligence process

#### **327 IAC 13-7-1 Due diligence process**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 1. The due diligence process shall include the following tasks:

(1) The political subdivision shall submit a completed due diligence form issued or authorized by the agency with the required documentation.

(2) The agency shall review or cause to be reviewed the due diligence form and documentation and shall inform the political subdivision in writing of the determination.

*(Water Pollution Control Board; 327 IAC 13-7-1; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1690; filed Aug 28, 1998, 4:53 p.m.: 22 IR 31; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 8. Facilities Planning (Repealed)**

*(Repealed by Water Pollution Control Board; filed Aug 28, 1998, 4:53 p.m.: 22 IR 48)*

#### **Rule 8.1. Preliminary Engineering Report**

327 IAC 13-8.1-1 Purpose

327 IAC 13-8.1-2 Applicability

327 IAC 13-8.1-3 Project summary

327 IAC 13-8.1-4 Development of feasible alternatives

327 IAC 13-8.1-5 Environmental information

327 IAC 13-8.1-6 Public participation

327 IAC 13-8.1-7 Public hearings

#### **327 IAC 13-8.1-1 Purpose**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 1. It is the purpose of this rule to establish the preliminary engineering report procedures required for funding of treatment works from the wastewater SRF. The preliminary engineering report shall provide the information necessary for the department to determine the technical, economic, and environmental adequacy of the proposed treatment works. The preliminary engineering report must be approved by the department prior to

award of financial assistance for construction. *(Water Pollution Control Board; 327 IAC 13-8.1-1; filed Aug 28, 1998, 4:53 p.m.: 22 IR 31; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **327 IAC 13-8.1-2 Applicability**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 2. This rule shall apply to any political subdivision requesting financial assistance from the wastewater SRF program. *(Water Pollution Control Board; 327 IAC 13-8.1-2; filed Aug 28, 1998, 4:53 p.m.: 22 IR 31; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **327 IAC 13-8.1-3 Project summary**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 3. The preliminary engineering report shall include a section that provides a brief summary of the proposed project and shall include the following:

(1) Project purpose, scope, and schedule.

(2) Project cost estimates for construction and nonconstruction activities.

(3) All anticipated funding sources for the project.

(4) Legal description of the project area.

(5) Current population data and twenty (20) year projection.

(6) Current condition of facilities, current pollutant loadings, and flows and twenty (20) year projection.

(7) The preliminary design summary with schematics, layouts, and maps for the affected and proposed treatment works.

(8) Sewer system studies, where appropriate, in order to establish that the system is not subject to excessive inflow and infiltration.

(9) The department may request additional information from a political subdivision that it deems necessary to complete a preliminary engineering report.

*(Water Pollution Control Board; 327 IAC 13-8.1-3; filed Aug 28, 1998, 4:53 p.m.: 22 IR 31; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **327 IAC 13-8.1-4 Development of feasible alternatives**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 4. The preliminary engineering report shall contain a section identifying a range of feasible alterna-

tives and shall include a description of all alternatives, including that of taking no action, that were evaluated during the planning process. The report shall include an evaluation of feasible alternatives and provide a rationale for the selection of the proposed alternative. (*Water Pollution Control Board; 327 IAC 13-8.1-4; filed Aug 28, 1998, 4:53 p.m.: 22 IR 31; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-8.1-5 Environmental information**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 5. The preliminary engineering report shall contain the following:

- (1) A comparison of the potential environmental impacts among feasible alternatives, including that of doing nothing.
- (2) A basis for a determination to prepare either:
  - (A) an EA and FNSEI issued pursuant to 327 IAC 13-9-5 and 327 IAC 13-9-6; or
  - (B) an EIS issued pursuant to 327 IAC 13-9-7 as the final environmental document.
- (3) An assessment of the cumulative environmental impacts of the feasible alternatives within each of the following categories:
  - (A) Soils and prime farmland.
  - (B) Air quality.
  - (C) Ground water, drinking water, and sole source aquifers.
  - (D) Floodplains, wetlands, waterways, and other surface waters.
  - (E) Plants and animals.
  - (F) Historical, architectural, and archaeological sites.
  - (G) Natural national landmarks.
  - (H) Coastal zones.
- (4) The environmental information shall include an evaluation of the environmental impacts of taking no action to modify, improve, or expand existing treatment works, or to construct new treatment works.
- (5) Specific mitigation measures shall be listed, as necessary, that shall eliminate, minimize, or compensate for the environmental impacts described in subdivision (3).
- (6) If the construction of an approved project is initiated five (5) or more years after the date of approval of a preliminary engineering report, additional environmental information shall be required unless it is determined by the department that there have been no substantial changes in the environmental impacts of the project.
- (7) If a proposed project is to be completed in several

distinct phases, the environmental information associated with the first phase must consider the cumulative impacts of the entire proposed system, including all succeeding phases. As succeeding phases are constructed, no additional environmental information shall be required if there have been no significant changes to the original preliminary engineering report.

(8) If a project is to be constructed in a political subdivision that had a preliminary engineering report for a previous project approved by the department, the environmental information submitted with the previous project shall be evaluated by the department to determine if its scope and content encompassed the environmental impacts associated with the current project. Based on this evaluation, the political subdivision shall only be required to submit additional information if the department deems it necessary to complete the environmental review for the current project.

(*Water Pollution Control Board; 327 IAC 13-8.1-5; filed Aug 28, 1998, 4:53 p.m.: 22 IR 31; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-8.1-6 Public participation**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 6. The preliminary engineering report shall include the following:

- (1) Copies of all written comments submitted by the public during the preliminary engineering process.
- (2) A transcript of the public hearing.
- (3) A mailing list of all individuals, industries, groups, and organizations that demonstrated an interest in receiving copies of the EA and FNSEI issued pursuant to 327 IAC 13-9-5 through 327 IAC 13-9-6.
- (4) A copy of the publisher's affidavit from the newspaper with the public hearing notice.

(*Water Pollution Control Board; 327 IAC 13-8.1-6; filed Aug 28, 1998, 4:53 p.m.: 22 IR 32; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-8.1-7 Public hearings**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 7. At least one (1) public hearing shall be held prior to adoption of the preliminary engineering report by the political subdivision. The purpose of the public hearing shall be to discuss the preliminary engineering report. A copy of the preliminary engineering report shall be available to all attendees at the hearing. Requirements for the hearing shall include the following:

(1) The public hearing shall be publicized in at least one (1) newspaper of general circulation in the study area a minimum of fourteen (14) days prior to the date of the hearing.

(2) The preliminary engineering report shall be available for public review for a minimum of fourteen (14) days prior to the date of the public hearing.

(3) Written comments shall be accepted during the hearing and for a period of ten (10) days following the hearing.

(4) A sign up sheet shall be available for all individuals interested in receiving the EA and FNSEI at the public hearing.

*(Water Pollution Control Board; 327 IAC 13-8.1-7; filed Aug 28, 1998, 4:53 p.m.: 22 IR 32; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 9. Environmental Impact Assessment**

327 IAC 13-9-1	Purpose
327 IAC 13-9-2	Applicability
327 IAC 13-9-3	Categorical exemptions
327 IAC 13-9-4	Facilities plan environmental information document ( <i>Repealed</i> )
327 IAC 13-9-5	Environmental assessment (EA)
327 IAC 13-9-6	Finding of no significant environmental impact
327 IAC 13-9-7	Environmental impact statement

#### **327 IAC 13-9-1 Purpose**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 1. It is the purpose of this rule to accomplish the following:

(1) To establish the environmental impact assessment procedures required for political subdivisions seeking financial assistance for treatment works from the wastewater SRF.

(2) To assure that the environmental impacts of all projects funded by the wastewater SRF be evaluated adequately prior to award of financial assistance.

(3) To assure that the consideration of public comments is an integral component of the environmental impact assessment process.

*(Water Pollution Control Board; 327 IAC 13-9-1; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1693; filed Aug 28, 1998, 4:53 p.m.: 22 IR 32; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **327 IAC 13-9-2 Applicability**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 2. This rule applies to any political subdivision requesting financial assistance for treatment works from the wastewater SRF program. *(Water Pollution Control Board; 327 IAC 13-9-2; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1693; filed Aug 28, 1998, 4:53 p.m.: 22 IR 33; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **327 IAC 13-9-3 Categorical exemptions**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 3. (a) The following classes of projects may be categorically exempt from the requirements of this rule, except as described in subsection (b):

(1) Minor addition, rehabilitation, improvement, or expansion of any existing treatment works that will disturb only previously disturbed land.

(2) Rehabilitation of sewer systems that will not result in the extension of the existing system and will disturb only previously disturbed land.

(b) If it is determined by the department that the construction or operation, or both, of any treatment works listed in subsection (a) may result in substantive environmental impacts, a categorical exemption shall not be granted, and the political subdivision shall prepare a preliminary engineering report under 327 IAC 13-8.1.

(c) A categorical exemption may be rescinded by the department if it is determined that information exists sufficient to suggest that substantive environmental impacts may occur as a result of the construction or operation, or both, of any treatment works included in a project that received a categorical exemption.

(d) All decisions to categorically exempt a project from the requirements of this rule, or to rescind a previously granted categorical exemption, shall be issued for public comments for thirty (30) days. The decision shall be considered final in the absence of significant public comments. If significant public comments are received during the comment period, the decision shall be reevaluated and a new decision, if appropriate, issued for public comments for thirty (30) days. *(Water Pollution Control Board; 327 IAC 13-9-3; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1693; filed Aug 28, 1998, 4:53 p.m.: 22 IR 33; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **327 IAC 13-9-4 Facilities plan environmental information document (*Repealed*)**

Sec. 4. *(Repealed by Water Pollution Control Board; filed Aug 28, 1998, 4:53 p.m.: 22 IR 48)*

#### **327 IAC 13-9-5 Environmental assessment (EA)**

**Authority:** IC 13-1-3-4; IC 13-7-7-1

**Affected:** IC 13-1-10

Sec. 5. (a) The purpose of an EA shall be the following:

- (1) To provide a description of all feasible treatment works alternatives.
- (2) To document the potential environmental impacts of the feasible alternatives.
- (3) To act as a public record of the information evaluated by the department.
- (4) To provide information adequate for the public to evaluate the alternatives.

(b) The preparation of an EA shall be the responsibility of the department.

(c) The EA shall, at a minimum, include the following information:

- (1) Project identification.
- (2) System summary.
- (3) System need and purpose.
- (4) System description.
- (5) Project costs, affordability, and funding.
- (6) Evaluation of alternatives.
- (7) Environmental impacts of the feasible alternatives.
- (8) Mitigation measures.
- (9) Public participation.

(d) The EA shall be provided as an attachment to the FNSEI document issued pursuant to section 6 of this rule. (*Water Pollution Control Board; 327 IAC 13-9-5; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1694; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-9-6 Finding of no significant environmental impact**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 6. (a) The purpose of issuing a FNSEI shall be to notify the public that, based upon the department's evaluation of all pertinent information submitted in the preliminary engineering report and information submitted by state and federal agencies, the construction and operation of the proposed treatment works shall result in no significant adverse environmental impact.

(b) The FNSEI and attached EA shall be issued for public comments for thirty (30) days. If significant public comments are received during the public comment period, the FNSEI shall be reevaluated and a new FNSEI, if appropriate, issued for public comments for thirty (30) days.

(c) A final decision to proceed, or not to proceed, with the proposed project shall be issued by the department after all public comments have been evaluated. (*Water*

*Pollution Control Board; 327 IAC 13-9-6; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1694; filed Aug 28, 1998, 4:53 p.m.: 22 IR 33; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-9-7 Environmental impact statement**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 7. (a) The purpose, content, and format of an EIS shall be established under 327 IAC 11-2-3(b)(1) through 327 IAC 11-2-3(b)(2).

(b) The criteria for initiating an EIS shall be established under 40 CFR 6.108.

(c) The preparation of an EIS shall be the responsibility of the department.

(d) A ROD shall be prepared by the department upon completion of an EIS that shall include a determination of whether to proceed with the proposed project. The ROD shall contain specific mitigation measures that shall minimize, eliminate, or compensate for the environmental impacts of the construction or operation, or both, of the proposed facilities. The ROD shall be issued for public comments for thirty (30) days, and shall be considered final in the absence of significant public comments. If significant public comments are received during the comment period, the ROD shall be reevaluated and a new ROD, if appropriate, shall be issued for public comments for thirty (30) days. (*Water Pollution Control Board; 327 IAC 13-9-7; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1694; filed Aug 28, 1998, 4:53 p.m.: 22 IR 33; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **Rule 10. Sewer Charge System/Sewer Use Ordinance**

327 IAC 13-10-1 Approval rate study; sewer rate ordinance

327 IAC 13-10-2 Sewer charge system (*Repealed*)

327 IAC 13-10-3 Sewer use ordinance

327 IAC 13-10-4 Interlocal agreement

### **327 IAC 13-10-1 Approval rate study; sewer rate ordinance**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 1. (a) Every political subdivision shall obtain the agency's approval of its sewer charge system as part of the due diligence process. If the political subdivision has a sewer charge system in effect, it shall demonstrate to the agency that it meets the requirements of this section and section 2 of this rule [*section 2 of this rule was repealed filed Aug 28, 1998, 4:53 p.m.: 22 IR 48.*] and

that these requirements are being enforced.

(b) Each political subdivision shall establish rates and charges at a level adequate to produce and maintain sufficient revenue to properly operate and maintain the treatment works, and to repay all debt obligations of the treatment works. (*Water Pollution Control Board; 327 IAC 13-10-1; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1695; filed Aug 28, 1998, 4:53 p.m.: 22 IR 34; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-10-2 Sewer charge system (Repealed)**

*Sec. 2. (Repealed by Water Pollution Control Board; filed Aug 28, 1998, 4:53 p.m.: 22 IR 48)*

### **327 IAC 13-10-3 Sewer use ordinance**

**Authority:** IC 13-1-3-4; IC 13-7-7-1

**Affected:** IC 4-23-21-8

Sec. 3. The political subdivision's sewer use ordinance shall meet the following requirements:

- (1) Prohibit any new unapproved connections from flow sources into the treatment works.
- (2) Require that new sewers and connections to the treatment works be properly designed, constructed, and not subject to excessive infiltration and inflow.
- (3) Require that all wastewater introduced into the treatment works meet the following criteria:
  - (A) Not contain toxic or other pollutants in amounts or concentrations that endanger public safety or physical or biological integrity of the treatment works.
  - (B) Not cause violation of effluent or water quality limitations.
- (4) Ensure that applicants for privately owned individual systems provide assurance of access to these systems at all reasonable times for such purposes as inspection, monitoring, building, operation, rehabilitation, and replacement.

*(Water Pollution Control Board; 327 IAC 13-10-3; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1695; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 13-10-4 Interlocal agreement**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13; IC 36-7-23

Sec. 4. If the project will serve two (2) or more political subdivisions, the political subdivision shall submit an interlocal service agreement, contract, or other legally binding instrument necessary for the financing, construction, operation, and maintenance of the proposed treatment works project for approval by the agency. If the

political subdivision is a multicounty infrastructure authority under IC 36-7-23, the agency may require similar documentation and assurances. (*Water Pollution Control Board; 327 IAC 13-10-4; filed Aug 28, 1998, 4:53 p.m.: 22 IR 34; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

## **Rule 11. Procurement**

327 IAC 13-11-1 Professional services

327 IAC 13-11-2 Procurement

327 IAC 13-11-3 Small, minority, and women's business enterprise

### **327 IAC 13-11-1 Professional services**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 5-16-11.1; IC 13-11-2; IC 13-18-13; IC 36-1-12; IC 36-7-23

Sec. 1. Political subdivisions conducting procurement for the uses authorized by the wastewater SRF for professional services shall proceed under IC 5-16-11.1. (*Water Pollution Control Board; 327 IAC 13-11-1; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1696; filed Aug 28, 1998, 4:53 p.m.: 22 IR 34; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-11-2 Procurement**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13; IC 36-1-12

Sec. 2. Political subdivisions conducting procurement for the uses authorized by the wastewater SRF for any activity other than professional services shall proceed under IC 36-1-12. (*Water Pollution Control Board; 327 IAC 13-11-2; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1696; filed Aug 28, 1998, 4:53 p.m.: 22 IR 34; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-11-3 Small, minority, and women's business enterprise**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 3. The political subdivision shall take all necessary affirmative steps to assure that small, minority, and women's business enterprises are used when possible. Affirmative steps shall include taking the following actions for all of these three (3) types of enterprises:

- (1) Placing qualified enterprises on solicitation lists.
- (2) Assuring that these enterprises are solicited whenever they are potential sources.
- (3) Dividing total requirements, when economically

feasible, into smaller tasks or quantities to permit maximum participation by these enterprises.

(4) Establishing delivery schedules, where the requirement permits, which encourage participation by these enterprises.

(5) Using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

(6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in this section.

*(Water Pollution Control Board; 327 IAC 13-11-3; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1696; filed Aug 28, 1998, 4:53 p.m.: 22 IR 35; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 12. Construction**

- 327 IAC 13-12-1 Construction permit
- 327 IAC 13-12-2 Acquisition of land, easements, and existing facilities
- 327 IAC 13-12-3 Bid tabulations
- 327 IAC 13-12-4 Contract information submittal
- 327 IAC 13-12-5 Construction wage rates
- 327 IAC 13-12-6 Change orders
- 327 IAC 13-12-7 Inspections
- 327 IAC 13-12-8 As-built plans
- 327 IAC 13-12-9 Project performance *(Repealed)*

#### **327 IAC 13-12-1 Construction permit**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 1. (a) The political subdivisions must obtain a construction permit from the department in accordance with 327 IAC 3-2-3 in conjunction with the approved preliminary engineering report prior to contract award approval.

(b) The political subdivision must receive authorization from the department prior to initiating *[sic., to initiating]* procurement for construction. *(Water Pollution Control Board; 327 IAC 13-12-1; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1696; filed Aug 28, 1998, 4:53 p.m.: 22 IR 35; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **327 IAC 13-12-2 Acquisition of land, easements, and existing facilities**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13; IC 32-11

Sec. 2. The political subdivision is responsible for acquisition of land, easements, and any existing facilities necessary to construct, operate, and maintain the project. Prior to the issuance of a construction permit by the department, the political subdivision shall provide

evidence that it has, or will have or, by a mutually agreeable date, the required property rights. All acquisitions of property by exercise of power of eminent domain shall comply with the procedure in IC 32-11 or other applicable law. *(Water Pollution Control Board; 327 IAC 13-12-2; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1696; filed Aug 28, 1998, 4:53 p.m.: 22 IR 35; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **327 IAC 13-12-3 Bid tabulations**

**Authority:** IC 13-1-3-4; IC 13-7-7-1

**Affected:** IC 4-23-21-8

Sec. 3. Certified bid tabulations and recommendations of award shall be submitted to the department for review and approval prior to construction contract award. *(Water Pollution Control Board; 327 IAC 13-12-3; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1697; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **327 IAC 13-12-4 Contract information submittal**

**Authority:** IC 13-1-3-4; IC 13-7-7-1

**Affected:** IC 4-23-21-8

Sec. 4. Following the department's approval of the proposed award, each political subdivision shall provide copies of the following to the department:

- (1) Executed contracts.
- (2) Notices to contractors to proceed.
- (3) Bid bonds.
- (4) Performance and payment bonds.
- (5) Construction schedules.

*(Water Pollution Control Board; 327 IAC 13-12-4; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1697; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **327 IAC 13-12-5 Construction wage rates**

**Authority:** IC 13-1-3-4; IC 13-7-7-1

**Affected:** IC 4-23-21-8

Sec. 5. Wages paid for the construction of treatment works shall conform to the prevailing wage rates established for the political subdivision's locality by the U.S. Department of Labor under the Davis-Bacon Act, 40 U.S.C. 276a. *(Water Pollution Control Board; 327 IAC 13-12-5; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1697; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **327 IAC 13-12-6 Change orders**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 6. The political subdivision shall submit copies of

each change order to the department. Change orders which:

- (1) significantly change the scope or design of the project; or
- (2) which increase the amount of financing needed for the project;

require the prior approval of the department and agency before the work is authorized by the political subdivision. If the change order will result in the expenditure of more wastewater SRF funds than the current amount of financial assistance approved by the agency, an amendment increasing the amount of assistance must be executed prior to the implementation of the changes. Any additional financial assistance shall comply with existing law as to the borrowing power of the political subdivision. (*Water Pollution Control Board; 327 IAC 13-12-6; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1697; filed Aug 28, 1998, 4:53 p.m.: 22 IR 35; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-12-7 Inspections**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 7. The inspections shall proceed as follows:

- (1) During the construction of the project, the political subdivision shall provide continuous inspection by qualified inspectors in sufficient numbers to ensure that the construction complies with department approved plans and specifications and the terms and conditions of the contract.
- (2) The inspectors shall maintain logs, written in ink, with entries sufficient to establish the amount and quality of work completed by the contractor including weather conditions and problems encountered.
- (3) The department shall conduct construction inspections to determine compliance with department approved plans and specifications. Inspections performed by the department are not made to replace the political subdivision's responsibility to properly monitor the construction of its project but are made solely to protect the department's and agency's financial interest in the project.
- (4) The political subdivision shall conduct a prefinal inspection making a punch list of incomplete and unacceptable work to be corrected before final inspection.
- (5) The political subdivision shall notify the department after the prefinal inspection has been done and all punch list items have been corrected, or agreed to be corrected to set up a final inspection to be made by the department to determine the date of substantial completion.

(*Water Pollution Control Board; 327 IAC 13-12-7; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1697; filed Aug 28, 1998, 4:53 p.m.: 22 IR 35; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-12-8 As-built plans**

**Authority:** IC 13-1-3-4; IC 13-7-1

**Affected:** IC 4-23-21-8

Sec. 8. After completion of the project, the political subdivision shall obtain as-built plans for the project from its engineer and provide these to the department. (*Water Pollution Control Board; 327 IAC 13-12-8; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1697; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 13-12-9 Project performance (Repealed)**

Sec. 9. (*Repealed by Water Pollution Control Board; filed Aug 28, 1998, 4:53 p.m.: 22 IR 48*)

## **Rule 13. Financing**

327 IAC 13-13-1 Criteria (*Repealed*)

### **327 IAC 13-13-1 Criteria (Repealed)**

Sec. 1. (*Repealed by Water Pollution Control Board; filed Dec 22, 1992, 5:00 p.m.: 16 IR 1382*)

## **Rule 14. Financial Assistance Conditions**

327 IAC 13-14-1 Financial assistance agreement (*Repealed*)

327 IAC 13-14-2 Financial assistance closing (*Repealed*)

### **327 IAC 13-14-1 Financial assistance agreement (Repealed)**

Sec. 1. (*Repealed by Water Pollution Control Board; filed Dec 22, 1992, 5:00 p.m.: 16 IR 1382*)

### **327 IAC 13-14-2 Financial assistance closing (Repealed)**

Sec. 2. (*Repealed by Water Pollution Control Board; filed Dec 22, 1992, 5:00 p.m.: 16 IR 1382*)

## **Rule 15. Disbursement of Loan Proceeds**

327 IAC 13-15-1 Disbursement process

### **327 IAC 13-15-1 Disbursement process**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 1. The loan proceeds shall be disbursed as follows:

(1) The department shall review and certify the wastewater SRF loan share of the appropriate costs incurred for the project. These costs shall be documented as requested by the department in the political subdivision's most recent invoice statement. The agency shall pay these costs in accordance with state disbursement procedures.

(2) Multiple disbursements of the loan proceeds shall be made by the agency on the basis of incurred costs during the construction of the project with the first disbursement made at financial assistance closing. Succeeding disbursements shall normally be made monthly until construction completion or until all proceeds of the loan have been disbursed. Interest shall commence on the day funds are disbursed to the political subdivision for that disbursement only or to third parties on behalf of the political subdivision.

(3) The political subdivision shall approve the project costs for payment prior to disbursement of the proceeds.

(4) Loan proceeds disbursed to or on behalf of the political subdivision shall be used only for authorized purposes. Funds shall not be disbursed to pay costs associated with a contract change order that authorized a significant change in project scope or design, or both, prior to concurrence by the department and the agency.

(5) The department and the agency may at any time review and audit requests for loan disbursements and make adjustments for circumstances, including, but not limited to, the following:

(A) Mathematical errors.

(B) Items not bought or built.

(C) Unacceptable construction.

(6) By its acceptance of the final loan disbursement, the political subdivision releases and discharges the department and agency its officers, agents, and employees from all liabilities, obligations, and claims arising out of the disbursement of loan proceeds, subject only to exceptions previously specified contractually in writing between the department and the political subdivision.

(7) All files and records pertaining to the project shall be maintained by the political subdivision throughout the project and made accessible to the department and agency. These files and records shall be retained by the political subdivision for at least six (6) years after initiation of operation as determined by the department and agency. However, if any litigation, claim, negotiation, audit, or other action involving the records has been started before the expiration of the six (6) year period, the records shall be retained until completion of the action and resolution of all issues that arise from it or until the end of the regular six (6) year period, whichever is later.

*(Water Pollution Control Board; 327 IAC 13-15-1; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1699; filed Aug 28, 1998, 4:53 p.m.: 22 IR 36; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 16. Reservation of Rights**

327 IAC 13-16-1 "Rights" defined

#### **327 IAC 13-16-1 "Rights" defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 1. The following rights are reserved:

(1) Nothing in this article prohibits a political subdivision from requiring more assurances, guarantees, or indemnity, or other contractual requirements from any party performing work on the project.

(2) Nothing in this article affects the department's and agency's right under existing rules to take remedial action, including, but not limited to, administrative enforcement action and actions for breach of contract against a political subdivision that fails to carry out its obligations under this article.

(3) Review or approval of any document by or for the department does not relieve the political subdivision of its responsibility to properly plan, design, build, and effectively operate and maintain the treatment works as required by federal and state statutes, rules, regulations, permits, and best management practice. The department is not responsible for increased costs resulting from defects in the plans, design drawings, specifications, inspections, construction, or other subagreement documents related to the project.

*(Water Pollution Control Board; 327 IAC 13-16-1; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1700; filed Aug 28, 1998, 4:53 p.m.: 22 IR 36; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 17. Rights of Review**

327 IAC 13-17-1 Review procedures

#### **327 IAC 13-17-1 Review procedures**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 1. A political subdivision whose financial assistance application is denied, or disputes the terms contained in the financial assistance agreement, or whose preliminary engineering report or any provisions of its preliminary engineering report as defined in 327 IAC 13-8.1-3 is rejected, may request a special review. The department and the agency shall conduct the review and

make a determination. If further review is requested, the political subdivision may present its case to the department and agency. The department and the agency shall make a recommendation to the agency director, whose decision is final. (*Water Pollution Control Board; 327 IAC 13-17-1; filed Apr 26, 1990, 10:45 a.m.: 13 IR 1700; filed Aug 28, 1998, 4:53 p.m.: 22 IR 37; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **Rule 18. Hardship Grant Program**

327 IAC 13-18-1 Purpose  
 327 IAC 13-18-2 Administration  
 327 IAC 13-18-3 Qualifying communities  
 327 IAC 13-18-4 Eligible projects

#### **327 IAC 13-18-1 Purpose**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 1. The hardship grant (HG) program established by the EPA shall accomplish the following:

- (1) Facilitate statewide compliance with state and federal water quality standards through construction of treatment works.
- (2) Provide rural communities considered to be economically disadvantaged, based on per capita income and local unemployment rate, financial assistance for the planning, design, and construction of publicly owned treatment works and alternative wastewater treatment systems.

(*Water Pollution Control Board; 327 IAC 13-18-1; filed Aug 28, 1998, 4:53 p.m.: 22 IR 37; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 13-18-2 Administration**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 2. The department will administer the hardship grant program in conjunction with the wastewater SRF program in accordance with the following:

- (1) All communities seeking hardship grant assistance must apply for a wastewater SRF loan. The department shall determine the proportion of wastewater SRF loan funds and hardship grant assistance grants.
- (2) The loan amount must account for at least fifteen percent (15%) of the wastewater SRF eligible cost of the project before it will be considered as a wastewater SRF project.
- (3) If a qualifying community cannot afford a loan for at least fifteen percent (15%) of a project's wastewater SRF eligible cost, the department may elect to provide

hardship grant assistance alone.

(4) The department shall enter into commitments to provide hardship grant assistance to benefit qualifying communities in an amount equaling one hundred five percent (105%) of the amount of the hardship grant, within one (1) year of funding availability.

(5) The department shall provide a five percent (5%) match for the grant. The source of the match must be identified on or before the date the federal grant is awarded.

(6) All projects that the department intends to provide hardship grant assistance must appear in the wastewater SRF intended use plan.

(*Water Pollution Control Board; 327 IAC 13-18-2; filed Aug 28, 1998, 4:53 p.m.: 22 IR 37; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 13-18-3 Qualifying communities**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 3. To qualify for hardship grant assistance, the communities shall meet the following conditions:

- (1) Shall not be served by any sewage collection or wastewater treatment system.
- (2) Shall have a population of three thousand (3,000) or fewer.
- (3) Is not a remote area within the corporate boundaries of the community.
- (4) Per capita annual income of residents served by the project does not exceed eighty percent (80%) of national, per capita income.
- (5) On the date the community applies for assistance, the local unemployment rate exceeds by one (1) percentage point or more the most recently reported, average yearly national unemployment rate.

(*Water Pollution Control Board; 327 IAC 13-18-3; filed Aug 28, 1998, 4:53 p.m.: 22 IR 37; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 13-18-4 Eligible projects**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13

Sec. 4. The following types of projects are eligible for hardship grant assistance:

- (1) Planning, design, and construction of publicly owned treatment works and alternate treatment systems.
- (2) Technical assistance, training, and educational programs relating to the operation and maintenance of sanitary services.

(*Water Pollution Control Board; 327 IAC 13-18-4; filed Aug 28, 1998, 4:53 p.m.: 22 IR 38; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

## ARTICLE 14. DRINKING WATER STATE REVOLVING LOAN FUND

- Rule 1. Purpose
- Rule 2. Definitions
- Rule 3. Uses of the Drinking Water State Revolving Fund
- Rule 4. Criteria for Determining Financial Assistance Eligibility
- Rule 5. Program Standards
- Rule 6. Due Diligence
- Rule 7. Preliminary Engineering Report
- Rule 8. Environmental Impact Assessment
- Rule 9. Water Rate Ordinance; Interlocal Agreement
- Rule 10. Procurement
- Rule 11. Construction
- Rule 12. Disbursement of Loan Proceeds
- Rule 13. Reservation of Rights
- Rule 14. Rights of Review

### Rule 1. Purpose

327 IAC 14-1-1 Purpose

#### 327 IAC 14-1-1 Purpose

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16; IC 13-18-21

Sec. 1. The purpose of this article is to implement the drinking water state revolving fund established by IC 13-18-21 and accomplish the following:

- (1) Provide funding for loans and other financial assistance to or for the benefit of political subdivisions, including forgiveness of principal if allowed under federal law.
- (2) Provide political subdivisions in Indiana funding for the planning, designing, construction, renovation, improvement, or expansion of public water systems (PWS) that will facilitate compliance with national primary drinking water regulations applicable to PWS under the federal Safe Drinking Water Act (SDWA) or otherwise significantly further the health protection objectives of the federal SDWA and other activities necessary or convenient to complete these tasks.
- (3) Pay the cost of administering the fund and the program, except as provided in the federal SDWA.
- (4) Conduct any other activity permitted by the SDWA.

(*Water Pollution Control Board; 327 IAC 14-1-1; filed Aug 28, 1998, 4:53 p.m.: 22 IR 38; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### Rule 2. Definitions

327 IAC 14-2-1 Applicability

- 327 IAC 14-2-2 "Agency" defined
- 327 IAC 14-2-3 "Authorized representative" defined
- 327 IAC 14-2-4 "Best management practice" defined
- 327 IAC 14-2-5 "Board" defined
- 327 IAC 14-2-6 "Bond" defined
- 327 IAC 14-2-7 "Commissioner" defined
- 327 IAC 14-2-8 "Department" defined
- 327 IAC 14-2-9 "Drinking water SRF" defined
- 327 IAC 14-2-10 "Due diligence" defined
- 327 IAC 14-2-11 "EA" defined
- 327 IAC 14-2-12 "EIS" defined
- 327 IAC 14-2-13 "Financial assistance" defined
- 327 IAC 14-2-14 "Financial assistance agreement" defined
- 327 IAC 14-2-15 "Financial assistance closing" defined
- 327 IAC 14-2-16 "FNSEI" defined
- 327 IAC 14-2-17 "IUP" defined
- 327 IAC 14-2-18 "Loan" defined
- 327 IAC 14-2-19 "Operation and maintenance" defined
- 327 IAC 14-2-20 "Political subdivision" defined
- 327 IAC 14-2-21 "PPL" defined
- 327 IAC 14-2-22 "Preliminary engineering report" defined
- 327 IAC 14-2-23 "Program" defined
- 327 IAC 14-2-24 "Project" defined
- 327 IAC 14-2-25 "PWS" defined
- 327 IAC 14-2-26 "ROD" defined
- 327 IAC 14-2-27 "Safe Drinking Water Act" defined
- 327 IAC 14-2-28 "Substantial completion of construction" defined
- 327 IAC 14-2-29 "Substantive environmental impact" defined
- 327 IAC 14-2-30 "Supplemental fund" defined
- 327 IAC 14-2-31 "Supplemental program" defined

#### 327 IAC 14-2-1 Applicability

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 1. The definitions in this rule apply throughout this article. (*Water Pollution Control Board; 327 IAC 14-2-1; filed Aug 28, 1998, 4:53 p.m.: 22 IR 38; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### 327 IAC 14-2-2 "Agency" defined

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 4-12-1-3; IC 13-11-2; IC 13-18-16

Sec. 2. "Agency" means the budget agency created under IC 4-12-1-3. (*Water Pollution Control Board; 327 IAC 14-2-2; filed Aug 28, 1998, 4:53 p.m.: 22 IR 38; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### 327 IAC 14-2-3 "Authorized representative" defined

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 3. "Authorized representative" means a person

who has been designated by the governing board of a political subdivision to sign documents on behalf of that board. (*Water Pollution Control Board; 327 IAC 14-2-3; filed Aug 28, 1998, 4:53 p.m.: 22 IR 38; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-2-4 “Best management practice” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 4. “Best management practice” means a practice or combination of practices that have been determined to be the most effective and practicable means of preventing or reducing water pollution to a level compatible with water quality goals. (*Water Pollution Control Board; 327 IAC 14-2-4; filed Aug 28, 1998, 4:53 p.m.: 22 IR 38; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-2-5 “Board” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 5. “Board” means the governing body of the political subdivision seeking financial assistance. (*Water Pollution Control Board; 327 IAC 14-2-5; filed Aug 28, 1998, 4:53 p.m.: 22 IR 38; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-2-6 “Bond” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 6. “Bond” is the debt instrument that evidences the long term financing undertaken by a political subdivision in accordance with Indiana statutes for incurring debt. (*Water Pollution Control Board; 327 IAC 14-2-6; filed Aug 28, 1998, 4:53 p.m.: 22 IR 38; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-2-7 “Commissioner” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 7. “Commissioner” means the commissioner of the department of environmental management. (*Water Pollution Control Board; 327 IAC 14-2-7; filed Aug 28, 1998, 4:53 p.m.: 22 IR 39; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-2-8 “Department” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-13-1-1; IC 13-18-16

Sec. 8. “Department” means the Indiana department of environmental management created under IC 13-13-1-1. (*Water Pollution Control Board; 327 IAC 14-2-8; filed Aug 28, 1998, 4:53 p.m.: 22 IR 39; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-2-9 “Drinking water SRF” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-13-18

**Affected:** IC 13-11-2; IC 13-18-13; IC 13-18-21

Sec. 9. “Drinking water SRF” means the drinking water state revolving fund as authorized by the Safe Drinking Water Act, 42 U.S.C. 1452 et seq., and IC 13-18-21\*.

\*The Safe Drinking Water Act may be found at 42 U.S.C. 1452 and is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 14-2-9; filed Aug 28, 1998, 4:53 p.m.: 22 IR 39; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-2-10 “Due diligence” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 10. “Due diligence” means a process that provides financial disclosures advising the state of economic matters related to the political subdivision and their ability to repay the loan. (*Water Pollution Control Board; 327 IAC 14-2-10; filed Aug 28, 1998, 4:53 p.m.: 22 IR 39; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-2-11 “EA” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 11. “EA” means an environmental assessment that is a document prepared by the department upon completion of a review of a preliminary engineering report that:

- (1) describes the PWS project alternatives;
- (2) describes the potential environmental impacts of the feasible alternatives;
- (3) acts as a public record of the documentation and

review process used to arrive at a preliminary decision as to whether an EIS is necessary; and

(4) provides information adequate for the public to comment on the proposed project.

*(Water Pollution Control Board; 327 IAC 14-2-11; filed Aug 28, 1998, 4:53 p.m.: 22 IR 39; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-2-12 “EIS” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 12. “EIS” means an environmental impact statement that is a document prepared if it is determined by the department that the construction or operation, or both, of a proposed PWS project will result in significant environmental impacts. The purpose, content, and format of an EIS shall be in accordance with 327 IAC 11-2-3(b)(1) through 327 IAC 11-2-3(b)(2). The preparation of an EIS shall be the responsibility of the department. *(Water Pollution Control Board; 327 IAC 14-2-12; filed Aug 28, 1998, 4:53 p.m.: 22 IR 39; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-2-13 “Financial assistance” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 13. “Financial assistance” means the types of financial assistance authorized by the Safe Drinking Water Act. *(Water Pollution Control Board; 327 IAC 14-2-13; filed Aug 28, 1998, 4:53 p.m.: 22 IR 39; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-2-14 “Financial assistance agreement” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 4-13-2-14.1; IC 13-11-2; IC 13-18-16

Sec. 14. “Financial assistance agreement” means a contract document approved under IC 4-13-2-14.1 that contains the covenants between the political subdivision and agency concerning financial assistance from the drinking water SRF. *(Water Pollution Control Board; 327 IAC 14-2-14; filed Aug 28, 1998, 4:53 p.m.: 22 IR 39; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-2-15 “Financial assistance closing” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 15. “Financial assistance closing” means the occasion in which a political subdivision tenders its note, bond, guaranty agreement, or credit enhancement agreement to the agency, and the agency provides a portion, or all, of the drinking water SRF financial assistance to the political subdivision. *(Water Pollution Control Board; 327 IAC 14-2-15; filed Aug 28, 1998, 4:53 p.m.: 22 IR 39; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-2-16 “FNSEI” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 16. “FNSEI” means a finding of no significant environmental impact that is a finding of the department, issued with an EA, that the construction and operation of a proposed PWS will not significantly impact the environment. *(Water Pollution Control Board; 327 IAC 14-2-16; filed Aug 28, 1998, 4:53 p.m.: 22 IR 39; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-2-17 “IUP” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 17. “IUP” means an intended use plan identifying the intended uses of the drinking water SRF and describing how those uses support the goals of the program. *(Water Pollution Control Board; 327 IAC 14-2-17; filed Aug 28, 1998, 4:53 p.m.: 22 IR 40; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-2-18 “Loan” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 18. “Loan” means purchasing the notes or bonds of a political subdivision to finance a PWS or refinancing an existing debt obligation where debt was incurred after July 1, 1993. *(Water Pollution Control Board; 327 IAC 14-2-18; filed Aug 28, 1998, 4:53 p.m.: 22 IR 40; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-2-19 “Operation and maintenance” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 19. “Operation and maintenance” includes the activities required to assure the continuing dependable and economic function of the PWS, including maintain-

ing compliance with primary and secondary drinking water standards, as follows:

(1) Operation is the control and management of the unit processes and equipment that make up the PWS. This includes financial and personnel management, records, reporting, laboratory control, process control, safety and emergency operation planning, and operating activities.

(2) Maintenance is the preservation of the functional integrity and efficiency of equipment and structures by implementing systems of preventive and corrective maintenance.

*(Water Pollution Control Board; 327 IAC 14-2-19; filed Aug 28, 1998, 4:53 p.m.: 22 IR 40; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-2-20 “Political subdivision” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 5-1.4; IC 5-1.5-1-8; IC 8-1-2-125; IC 13-11-2; IC 13-18-16; IC 13-26; IC 14-33-1-1; IC 36-1-2

Sec. 20. “Political subdivision” means the following:

(1) Political subdivision as defined in IC 36-1-2.

(2) Regional water, sewage, or solid waste district organized under IC 13-26 or IC 13-3-2, before its repeal July 1, 1996.

(3) Local public improvement bond bank organized under IC 5-1.4.

(4) Qualified entity described in IC 5-1.5-1-8(4) that is a public water utility described in IC 8-1-2-125.

(5) Conservancy district established for the purpose set forth in IC 14-33-1-1(a)(4).

*(Water Pollution Control Board; 327 IAC 14-2-20; filed Aug 28, 1998, 4:53 p.m.: 22 IR 40; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-2-21 “PPL” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 21. “PPL” means a project list which is generated through the department and updated annually and amended quarterly. It ranks, in descending priority of need, political subdivisions which have indicated a need for a PWS construction project. *(Water Pollution Control Board; 327 IAC 14-2-21; filed Aug 28, 1998, 4:53 p.m.: 22 IR 40; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-2-22 “Preliminary engineering report” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 22. “Preliminary engineering report” means the document submitted by the political subdivision that provides the information necessary for the department to determine the technical, economic, and environmental adequacy of the proposed PWS construction project. *(Water Pollution Control Board; 327 IAC 14-2-22; filed Aug 28, 1998, 4:53 p.m.: 22 IR 40; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-2-23 “Program” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16; IC 13-18-21

Sec. 23. “Program” means the drinking water state revolving loan fund established by IC 13-18-21. *(Water Pollution Control Board; 327 IAC 14-2-23; filed Aug 28, 1998, 4:53 p.m.: 22 IR 40; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-2-24 “Project” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 24. “Project” means the activities or tasks the department identifies in the preliminary engineering report for which the political subdivision may commit and expend funds. *(Water Pollution Control Board; 327 IAC 14-2-24; filed Aug 28, 1998, 4:53 p.m.: 22 IR 40; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-2-25 “PWS” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 25. “PWS” means a public water system as described in 327 IAC 8-2-1(49). *(Water Pollution Control Board; 327 IAC 14-2-25; filed Aug 28, 1998, 4:53 p.m.: 22 IR 40; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-2-26 “ROD” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 26. “ROD” means a statement issued by the department upon the completion of an EIS, which includes a determination of whether to proceed with a proposed project. *(Water Pollution Control Board; 327 IAC 14-2-26; filed Aug 28, 1998, 4:53 p.m.: 22 IR 40; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 14-2-27 “Safe Drinking Water Act” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 27. “Safe Drinking Water Act” means the federal act as amended by the Safe Drinking Water Act Amendments of 1986, the Lead Contamination Control Act of 1988, and the Safe Drinking Water Act Amendments of 1996\*.

\*The Safe Drinking Water Act may be found at 42 U.S.C. 300f to 300j-26 and is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, Indiana 46206. (*Water Pollution Control Board; 327 IAC 14-2-27; filed Aug 28, 1998, 4:53 p.m.: 22 IR 41; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-2-28 “Substantial completion of construction” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 28. “Substantial completion of construction” means the date determined by the department when all but minor components of a project have been built, all equipment is operational, and the project is capable of functioning as designed. (*Water Pollution Control Board; 327 IAC 14-2-28; filed Aug 28, 1998, 4:53 p.m.: 22 IR 41; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-2-29 “Substantive environmental impact” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 29. “Substantive environmental impact” means a significant adverse change in the environment resulting directly or indirectly from the construction, operation, upgrade, or expansion of a PWS construction project. (*Water Pollution Control Board; 327 IAC 14-2-29; filed Aug 28, 1998, 4:53 p.m.: 22 IR 41; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-2-30 “Supplemental fund” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16; IC 13-18-21-22

Sec. 30. “Supplemental fund” means the supplemental drinking water assistance fund established by IC 13-18-21-22. (*Water Pollution Control Board; 327 IAC 14-2-30; filed Aug 28, 1998, 4:53 p.m.: 22 IR 41; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-2-31 “Supplemental program” defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16; IC 13-18-21-21

Sec. 31. “Supplemental program” means the supplemental drinking water assistance program established by IC 13-18-21-21. (*Water Pollution Control Board; 327 IAC 14-2-31; filed Aug 28, 1998, 4:53 p.m.: 22 IR 41; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**Rule 3. Uses of the Drinking Water State Revolving Fund**

327 IAC 14-3-1 Drinking water SRF program expenditures

**327 IAC 14-3-1 Drinking water SRF program expenditures**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 1. The drinking water SRF shall be used to do the following:

- (1) Provide financial assistance for PWS construction projects and all other activities that are permitted by the Safe Drinking Water Act.
- (2) Refinance outstanding indebtedness of political subdivisions eligible for repurchase by the agency under the Safe Drinking Water Act.
- (3) Pay reasonable direct and indirect program administration costs.

(*Water Pollution Control Board; 327 IAC 14-3-1; filed Aug 28, 1998, 4:53 p.m.: 22 IR 41; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**Rule 4. Criteria for Determining Financial Assistance Eligibility**

327 IAC 14-4-1 Project priority list

327 IAC 14-4-2 Intended use plan

**327 IAC 14-4-1 Project priority list**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 1. The agency shall award drinking water SRF financial assistance for PWS construction projects to a political subdivision only for eligible costs of projects listed on the department's project priority list PPL.

*(Water Pollution Control Board; 327 IAC 14-4-1; filed Aug 28, 1998, 4:53 p.m.: 22 IR 41; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-4-2 Intended use plan**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16; IC 13-18-21-3

Sec. 2. (a) The department and the agency shall prepare annually an IUP, including a project priority list pursuant to the Safe Drinking Water Act, to be effective on the first day of the state's fiscal year.

(b) The following documents shall be included as appendices of the IUP and are subject to modification in accordance with this section:

- (1) The PPL.
- (2) A document describing the project ranking process.
- (3) A list of any other types of project permitted by the Safe Drinking Water Act.

(c) The department shall adopt an IUP after holding a public meeting on the plan and responding to substantial comments received. The department shall amend the IUP to add eligible projects, and change or amend listed projects as necessary on a quarterly basis after pursuing a public notification process.

(d) Placement in the PPL shall be based on the following criteria:

- (1) The project must be consistent with the uses of the drinking water SRF as identified in the SDWA and IC 13-18-21-3.
- (2) A political subdivision must submit general project information on an application form provided by the department that is signed by the political subdivision's authorized representative and includes relevant information as follows:
  - (A) A general description of the project.
  - (B) An appropriate cost estimate for different phases of the project.
  - (C) An estimated initiation date and completion date for each phase of the project.

*(Water Pollution Control Board; 327 IAC 14-4-2; filed Aug 28, 1998, 4:53 p.m.: 22 IR 41; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 5. Program Standards**

327 IAC 14-5-1 Criteria

#### **327 IAC 14-5-1 Criteria**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 1. Loans and other available SRF financial

assistance for PWS construction projects shall be made only to a political subdivision that meets all of the following criteria:

- (1) Owns, operates, and maintains, or causes to be operated and maintained, a PWS for its useful life.
- (2) Demonstrates financial, managerial, technical, and legal capability to meet the terms of the financial assistance agreement and to operate and maintain the PWS for its useful life.
- (3) Agrees to submit an annual operating budget for the agency's approval and periodically adjust fees, charges, taxes, special assessments, and revenues available to the political subdivision, if any, in order to assure receipt of sufficient revenue annually to comply with all requirements of the loan agreement.
- (4) Agrees to:
  - (A) maintain financial records in accordance with generally accepted government accounting principles for utilities; and
  - (B) provide a copy of audits of the PWS financial records as conducted by the state board of accounts or other certified independent auditor during the term of the financial assistance.
- (5) Agrees to allow inspection by the agency of the financial records related to the PWS during the term of the financial assistance agreement.
- (6) Meets all other drinking water SRF program requirements.

*(Water Pollution Control Board; 327 IAC 14-5-1; filed Aug 28, 1998, 4:53 p.m.: 22 IR 42; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 6. Due Diligence**

327 IAC 14-6-1 Due diligence process

#### **327 IAC 14-6-1 Due diligence process**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 1. The due diligence process shall include the following tasks:

- (1) The political subdivision shall submit a completed due diligence form issued or authorized by the agency with the required documentation.
- (2) The agency shall:
  - (A) review or cause to be reviewed the due diligence form and documentation; and
  - (B) inform the political subdivision, in writing, of the determination.

*(Water Pollution Control Board; 327 IAC 14-6-1; filed Aug 28, 1998, 4:53 p.m.: 22 IR 42; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**Rule 7. Preliminary Engineering Report**

327 IAC 14-7-1	Purpose
327 IAC 14-7-2	Applicability
327 IAC 14-7-3	Project summary
327 IAC 14-7-4	Development of feasible alternatives
327 IAC 14-7-5	Environmental information
327 IAC 14-7-6	Public participation
327 IAC 14-7-7	Public hearings

**327 IAC 14-7-1 Purpose**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 1. It is the purpose of this rule to establish the preliminary engineering procedures required for funding of PWS construction projects from the drinking water SRF. The preliminary engineering report shall provide the information necessary for the department to determine the technical, economic, and environmental adequacy of the proposed PWS. The preliminary engineering report must be approved by the department prior to award of financial assistance for construction. (*Water Pollution Control Board; 327 IAC 14-7-1; filed Aug 28, 1998, 4:53 p.m.: 22 IR 42; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-7-2 Applicability**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 2. This rule shall apply to any political subdivision requesting financial assistance from the drinking water SRF program. (*Water Pollution Control Board; 327 IAC 14-7-2; filed Aug 28, 1998, 4:53 p.m.: 22 IR 42; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-7-3 Project summary**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 3. The preliminary engineering report shall include a section that provides a brief summary of the proposed project, including the following:

- (1) Project purpose, scope and schedule.
- (2) Project cost estimates for construction and nonconstruction activities.
- (3) All anticipated funding sources for the project.
- (4) Legal description of the project area.
- (5) Current population data and twenty (20) year projection.
- (6) Current condition of facilities, current pollutant loadings and flows and twenty (20) year projection.

(7) The preliminary design summary with schematics, layouts, and maps for the affected project and proposed PWS.

(8) The department may request additional information from a political subdivision that it deems necessary to complete a preliminary engineering report.

(*Water Pollution Control Board; 327 IAC 14-7-3; filed Aug 28, 1998, 4:53 p.m.: 22 IR 42; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-7-4 Development of feasible alternatives**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 4. The preliminary engineering report shall contain a section identifying a range of feasible alternatives with a description of all alternatives, including that of taking no action, that were evaluated during the planning process. The report shall include an evaluation of feasible alternatives and provide a rationale for the selection of the proposed alternative. (*Water Pollution Control Board; 327 IAC 14-7-4; filed Aug 28, 1998, 4:53 p.m.: 22 IR 43; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-7-5 Environmental information**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 5. The preliminary engineering report shall contain the following:

(1) A comparison of the potential environmental impacts among feasible alternatives, including that of doing nothing.

(2) A basis for a determination to prepare either an EA and FNSEI, issued pursuant to 327 IAC 13-9-5 and 327 IAC 13-9-6 or an EIS, issued under 327 IAC 13-9-7, as the final environmental document.

(3) An assessment of the cumulative environmental impacts of the feasible alternatives within each of the following categories:

(A) Soils and prime farmland.

(B) Air quality.

(C) Ground water, drinking water, and sole source aquifers.

(D) Floodplains, wetlands, waterways, and other surface waters.

(E) Plants and animals.

(F) Historic, architectural, and archaeological sites.

(G) Natural national landmarks.

(H) Coastal zones.

(4) The environmental information document shall

include an evaluation of the environmental impacts of taking no action to modify, improve, or expand an existing PWS.

(5) Specific mitigation measures shall be listed, as necessary, which shall eliminate, minimize, or compensate for the environmental impacts described in subdivision (3).

(6) If the construction of an approved project is initiated five (5) or more years after the date of approval of a preliminary engineering report, an additional environmental information document shall be required unless it is determined by the department that there have been no substantial changes in the environmental impacts of the project.

(7) If a proposed project is to be completed in several distinct phases, the environmental information associated with the first phase must consider the cumulative impacts of the entire proposed system, including all succeeding phases. As succeeding phases are constructed, no additional environmental information shall be required if there have been no significant changes to the original preliminary engineering report.

(8) If a project is to be constructed in a political subdivision that had a preliminary engineering report for a previous project approved by the department, the environmental information submitted with the previous project shall be evaluated by the department to determine if its scope and content encompassed the environmental impacts associated with the current project. Based on this evaluation, the political subdivision shall only be required to submit additional information if the department deems it necessary to complete the environmental review for the current project.

*(Water Pollution Control Board; 327 IAC 14-7-5; filed Aug 28, 1998, 4:53 p.m.: 22 IR 43; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-7-6 Public participation**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 6. The preliminary engineering report shall include the following:

- (1) Copies of all written comments submitted by the public during the preliminary engineering process.
- (2) A transcript of the public hearing.
- (3) A mailing list of all individuals, industries, groups, and organizations that have demonstrated an interest in receiving copies of the EA and FNSEI issued pursuant to 327 IAC 13-9-5 through 327 IAC 13-9-6.
- (4) A copy of the publisher's affidavit from the newspaper with the public hearing notice.

*(Water Pollution Control Board; 327 IAC 14-7-6; filed Aug 28, 1998, 4:53 p.m.: 22 IR 43; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-7-7 Public hearings**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 7. At least one (1) public hearing shall be held prior to adoption of the preliminary engineering report by the political subdivision. The purpose of the public hearing shall be to discuss the preliminary engineering report. A copy of the preliminary engineering report shall be available to all attendees at the hearing. Requirements for the hearing shall include the following:

- (1) The public hearing shall be publicized in at least one (1) newspaper of general circulation in the study area a minimum of fourteen (14) days prior to the date of the hearing.
- (2) The preliminary engineering report shall be available for public review for a minimum of fourteen (14) days prior to the date of the public hearing.
- (3) Written comments shall be accepted during the hearing and for a period of ten (10) days following the hearing.
- (4) A sign up sheet shall be available for all individuals interested in receiving the EA and FNSEI at the public hearing.

*(Water Pollution Control Board; 327 IAC 14-7-7; filed Aug 28, 1998, 4:53 p.m.: 22 IR 43; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 8. Environmental Impact Assessment**

327 IAC 14-8-1	Purpose
327 IAC 14-8-2	Applicability
327 IAC 14-8-3	Categorical exemptions
327 IAC 14-8-4	Environmental assessment
327 IAC 14-8-5	Finding of no significant environmental impact
327 IAC 14-8-6	Environmental impact statement

### **327 IAC 14-8-1 Purpose**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 1. It is the purpose of this rule to accomplish the following:

- (1) To establish the environmental impact assessment procedures required for political subdivisions seeking financial assistance for PWS construction projects from the drinking water SRF.
- (2) To assure that the environmental impacts of all

projects funded by the drinking water SRF be evaluated adequately prior to award of financial assistance.

(3) To assure that the consideration of public comments is an integral component of the environmental impact assessment process.

*(Water Pollution Control Board; 327 IAC 14-8-1; filed Aug 28, 1998, 4:53 p.m.: 22 IR 44; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-8-2 Applicability**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 2. This rule applies to any political subdivision requesting financial assistance for PWS construction projects from the drinking water SRF program. *(Water Pollution Control Board; 327 IAC 14-8-2; filed Aug 28, 1998, 4:53 p.m.: 22 IR 44; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-8-3 Categorical exemptions**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 3. (a) The following classes of projects may be categorically exempt from the requirements of this rule, except as described in subsection (b):

(1) Minor addition, rehabilitation, improvement, or expansion of any existing PWS that will disturb only previously disturbed land.

(2) Rehabilitation of PWS that will not result in the extension of the existing system and will disturb only previously disturbed land.

(b) If it is determined by the department that the construction or operation, or both, of any PWS construction project listed in subsection (a) may result in substantive environmental impacts, a categorical exemption shall not be granted, and the political subdivision shall prepare a preliminary engineering report environmental information document under this rule.

(c) A categorical exemption may be rescinded by the department if it is determined that information exists sufficient to suggest that substantive environmental impacts may occur as a result of the construction or operation, or both, of any PWS construction project that received a categorical exemption.

(d) All decisions to categorically exempt a project from the requirements of this rule, or to rescind a previously granted categorical exemption, shall be issued for public comments for thirty (30) days. The decision shall be considered final in the absence of significant public comments. If significant public comments are received

during the comment period, the decision shall be reevaluated and a new decision, if appropriate, issued for public comments for thirty (30) days. *(Water Pollution Control Board; 327 IAC 14-8-3; filed Aug 28, 1998, 4:53 p.m.: 22 IR 44; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-8-4 Environmental assessment**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 4. (a) The purpose of an EA shall be the following:

(1) To provide a description of all feasible PWS alternatives.

(2) To document the potential environmental impacts of the feasible alternatives.

(3) To act as a public record of the information evaluated by the department.

(4) To provide information adequate for the public to evaluate the alternatives.

(b) The preparation of an EA shall be the responsibility of the department.

(c) The EA shall, at a minimum, include the following information:

(1) Project identification.

(2) System summary.

(3) System need and purpose.

(4) System description.

(5) Project costs, affordability, and funding.

(6) Evaluation of alternatives.

(7) Environmental impacts of the feasible alternatives.

(8) Mitigation measures.

(9) Public participation.

(d) The EA shall be provided as an attachment to the FNSEI document issued under section 5 of this rule. *(Water Pollution Control Board; 327 IAC 14-8-4; filed Aug 28, 1998, 4:53 p.m.: 22 IR 44; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 14-8-5 Finding of no significant environmental impact**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 5. (a) The purpose of issuing an FNSEI shall be to notify the public that, based upon the department's evaluation of all pertinent information submitted in the environmental information section in the preliminary engineering report and information submitted by state and federal agencies, the construction and operation of PWS construction projects shall result in no significant

adverse environmental impact.

(b) The FNSEI and attached EA shall be issued for public comments for thirty (30) days. If significant public comments are received during the public comment period, the FNSEI shall be reevaluated and a new FNSEI, if appropriate, issued for public comments for thirty (30) days.

(c) A final decision to proceed, or not to proceed, with the proposed project shall be issued by the department after all public comments have been evaluated. (*Water Pollution Control Board; 327 IAC 14-8-5; filed Aug 28, 1998, 4:53 p.m.: 22 IR 45; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 14-8-6 Environmental impact statement**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 6. (a) The purpose, content, and format of an EIS shall be established under 327 IAC 11-2-3(b)(1) through 327 IAC 11-2-3(b)(2).

(b) The criteria for initiating an EIS shall be established under 40 CFR 6.108.

(c) The preparation of an EIS shall be the responsibility of the department.

(d) A ROD shall be prepared by the department upon completion of an EIS that shall include a determination of whether to proceed with the proposed project. The ROD shall contain specific mitigation measures that shall minimize, eliminate, or compensate for the environmental impacts of the construction or operation, or both, of the proposed project. The ROD shall be issued for public comments for thirty (30) days, and shall be considered final in the absence of significant public comments. If significant public comments are received during the comment period, the ROD shall be reevaluated and a new ROD, if appropriate, shall be issued for public comments for thirty (30) days. (*Water Pollution Control Board; 327 IAC 14-8-6; filed Aug 28, 1998, 4:53 p.m.: 22 IR 45; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **Rule 9. Water Rate Ordinance; Interlocal Agreement**

327 IAC 14-9-1 Approval rate study water rate ordinance  
327 IAC 14-9-2 Interlocal agreement

### **327 IAC 14-9-1 Approval rate study water rate ordinance**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16; IC 36-7-23

Sec. 1. (a) Every political subdivision shall obtain the

agency's approval of its water system rates and charges as part of the due diligence process.

(b) Each political subdivision shall establish rates and charges at a level adequate to produce and maintain sufficient revenue to properly operate and maintain the treatment works and to repay all debt obligations of the treatment works. (*Water Pollution Control Board; 327 IAC 14-9-1; filed Aug 28, 1998, 4:53 p.m.: 22 IR 45; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 14-9-2 Interlocal agreement**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16; IC 36-7-23

Sec. 2. If the project will serve two (2) or more political subdivisions, the political subdivision shall submit an interlocal service agreement, contract, or other legally binding instrument necessary for the financing, construction, operation, and maintenance of the proposed public water system project for approval by the agency. If the political subdivision is a multicounty infrastructure authority under IC 36-7-23, the agency may require similar documentation and assurances. (*Water Pollution Control Board; 327 IAC 14-9-2; filed Aug 28, 1998, 4:53 p.m.: 22 IR 45; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **Rule 10. Procurement**

327 IAC 14-10-1 Professional services  
327 IAC 14-10-2 Procurement  
327 IAC 14-10-3 Small, minority, and women's business enterprises

### **327 IAC 14-10-1 Professional services**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 5-16-11.1; IC 13-11-2; IC 13-18-16; IC 36-1-12

Sec. 1. Political subdivisions conducting procurement for the uses authorized by the drinking water SRF for professional services shall proceed pursuant to IC 5-16-11.1. (*Water Pollution Control Board; 327 IAC 14-10-1; filed Aug 28, 1998, 4:53 p.m.: 22 IR 45; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 14-10-2 Procurement**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16; IC 36-1-12

Sec. 2. Political subdivisions conducting procurement for the uses authorized by the drinking water SRF for any activity other than professional services shall proceed pursuant to IC 36-1-12. (*Water Pollution Control Board;*

327 IAC 14-10-2; filed Aug 28, 1998, 4:53 p.m.: 22 IR 45; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)

### **327 IAC 14-10-3 Small, minority, and women's business enterprises**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 3. The political subdivision shall take all necessary affirmative steps to assure that small, minority, and women's business enterprises are used when possible. Affirmative steps shall include taking the following actions:

- (1) Placing qualified enterprises on solicitation lists.
- (2) Assuring that these enterprises are solicited whenever they are potential sources.
- (3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by these enterprises.
- (4) Establishing delivery schedules, where the requirement permits, that encourage participation by these enterprises.
- (5) Using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.
- (6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in this section.

(*Water Pollution Control Board; 327 IAC 14-10-3; filed Aug 28, 1998, 4:53 p.m.: 22 IR 46; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **Rule 11. Construction**

- 327 IAC 14-11-1 Construction permit
- 327 IAC 14-11-2 Acquisition of land, easements, and existing facilities
- 327 IAC 14-11-3 Bid tabulations
- 327 IAC 14-11-4 Contract information submittal
- 327 IAC 14-11-5 Construction wage rates
- 327 IAC 14-11-6 Change orders
- 327 IAC 14-11-7 Inspections
- 327 IAC 14-11-8 As-built plans

### **327 IAC 14-11-1 Construction permit**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 1. (a) The political subdivision must obtain a construction permit from the department in accordance with 327 IAC 8-3-2 in conjunction with the approved preliminary engineering report prior to contract award approval.

(b) The political subdivision must receive authorization

from the department prior to initiating procurement for construction. (*Water Pollution Control Board; 327 IAC 14-11-1; filed Aug 28, 1998, 4:53 p.m.: 22 IR 46; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 14-11-2 Acquisition of land, easements, and existing facilities**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16; IC 32-11

Sec. 2. The political subdivision is responsible for acquisition of land, easements, and any existing facilities necessary to construct, operate, and maintain the project. Prior to the issuance of a construction permit by the department, the political subdivision shall provide evidence that it has, or will have by a mutually agreeable date, the required property rights. All acquisitions of property by exercise of power of eminent domain shall comply with the procedure in IC 32-11 and Section 1452(a)(2) of the Safe Drinking Water Act. (*Water Pollution Control Board; 327 IAC 14-11-2; filed Aug 28, 1998, 4:53 p.m.: 22 IR 46; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 14-11-3 Bid tabulations**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 3. Certified bid tabulations and recommendations of award shall be submitted to the department for review and approval prior to construction contract award. (*Water Pollution Control Board; 327 IAC 14-11-3; filed Aug 28, 1998, 4:53 p.m.: 22 IR 46; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 14-11-4 Contract information submittal**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 4. Following the department's approval of the proposed award, each political subdivision shall provide copies of the following to the department:

- (1) Executed contracts.
- (2) Notices to contractors to proceed.
- (3) Bid bonds.
- (4) Performance and payment bonds.
- (5) Construction schedules.

(*Water Pollution Control Board; 327 IAC 14-11-4; filed Aug 28, 1998, 4:53 p.m.: 22 IR 46; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-11-5 Construction wage rates**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 5. Wages paid for the construction of public water systems shall conform to the prevailing wage rates established for the political subdivision's locality by the U.S. Department of Labor under the Davis-Bacon Act, 40 U.S.C. 276a. (*Water Pollution Control Board; 327 IAC 14-11-5; filed Aug 28, 1998, 4:53 p.m.: 22 IR 46; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-11-6 Change orders**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 6. The political subdivision shall submit copies of each change order to the department. Change orders that:

- (1) significantly change the scope or design of the project; or
- (2) increase the amount of financing needed for the project;

require the prior approval of the department and agency before the work is authorized by the political subdivision. If the change order will result in the expenditure of more drinking water SRF funds than the current amount of financial assistance approved by the agency, an amendment increasing the amount of assistance must be executed prior to the implementation of the changes. Any additional financial assistance shall comply with existing law as to the borrowing power of the political subdivision. (*Water Pollution Control Board; 327 IAC 14-11-6; filed Aug 28, 1998, 4:53 p.m.: 22 IR 46; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-11-7 Inspections**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 7. The inspections shall proceed as follows:

- (1) During the construction of the project, the political subdivision shall provide continuous inspection by qualified inspectors in sufficient numbers to ensure that the construction complies with the department-issued construction permit and the terms and conditions of the contract.
- (2) The inspectors shall maintain logs, written in ink, with entries sufficient to establish the amount and quality of work completed by the contractor, including weather conditions and problems encountered.
- (3) The department shall conduct construction inspec-

tions to determine compliance with the department-issued construction permit and the financial assistance agreement. Inspections performed by the department are not made to replace the political subdivision's responsibility to properly monitor the construction of its project but are made solely to protect the department's and the agency's financial interest in the project.

(4) The political subdivision, shall conduct a prefinal inspection making a punch list of incomplete and unacceptable work to be corrected before final inspection.

(5) The political subdivision shall notify the department after the prefinal inspection has been done and all punch list items have been corrected, or agreed to be corrected, to set up a final inspection to be made by the department to determine the date of substantial completion.

(*Water Pollution Control Board; 327 IAC 14-11-7; filed Aug 28, 1998, 4:53 p.m.: 22 IR 47; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 14-11-8 As-built plans**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 8. After completion of the project, the political subdivision shall obtain as-built plans for the project from its engineer and provide these to the department. (*Water Pollution Control Board; 327 IAC 14-11-8; filed Aug 28, 1998, 4:53 p.m.: 22 IR 47; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**Rule 12. Disbursement of Loan Proceeds**

327 IAC 14-12-1 Disbursement process

**327 IAC 14-12-1 Disbursement process**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 1. The loan proceeds shall be disbursed as follows:

(1) The department shall review and certify the drinking water SRF loan share of the appropriate costs incurred for the project. These costs shall be documented as requested by the department in the political subdivision's most recent invoice statement. The agency shall pay these costs in accordance with state disbursement procedures.

(2) Multiple disbursements of the loan proceeds shall be made by the agency on the basis of incurred costs during the construction of the project with the first disbursement made at financial assistance closing.

Succeeding disbursements shall normally be made monthly until construction completion or until all proceeds of the loan have been disbursed. Interest shall commence on the day funds are disbursed to the political subdivision for that disbursement only or to third parties on behalf of the political subdivision.

(3) The political subdivision shall approve the project costs for payment prior to disbursement of the proceeds.

(4) Loan proceeds disbursed to or on behalf of the political subdivision shall be used only for authorized purposes. Funds shall not be disbursed to pay costs associated with a contract change order that authorized a significant change in project scope or design, or both, prior to concurrence by the department and the agency.

(5) The department and the agency may at any time review and audit requests for loan disbursements and make adjustments for circumstances including, but not limited to the following:

(A) Mathematical errors.

(B) Items not bought or built.

(C) Unacceptable construction.

(6) By its acceptance of the final loan disbursement, the political subdivision releases and discharges the department, and agency, its officers, agents, and employees from all liabilities, obligations, and claims arising out of the disbursement of loan proceeds, subject only to exceptions previously specified contractually in writing between the department and the political subdivision.

(7) All files and records pertaining to the project shall be maintained by the political subdivision throughout the project and made accessible to the department and agency. These files and records shall be retained by the political subdivision for at least six (6) years after initiation of operation as determined by the department and agency. However, if any litigation, claim, negotiation, audit, or other action involving the records has been started before the expiration of the six (6) year period, the records shall be retained until completion of the action and resolution of all issues that arise from it or until the end of the regular six (6) year period, whichever is later.

*(Water Pollution Control Board; 327 IAC 14-12-1; filed Aug 28, 1998, 4:53 p.m.: 22 IR 47; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 13. Reservation of Rights**

327 IAC 14-13-1 "Rights" defined

#### **327 IAC 14-13-1 "Rights" defined**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 1. The following rights are reserved:

(1) Nothing in this article prohibits a political subdivision from requiring more assurances, guarantees, or indemnity, or other contractual requirements from any party performing work on the project.

(2) Nothing in this article affects the department's and agency right under existing rules to take remedial action, including, but not limited to, administrative enforcement action and actions for breach of contract against a political subdivision that fails to carry out its obligations under this article.

(3) Review or approval of any document by or for the department does not relieve the political subdivision of its responsibility to properly plan, design, build, and effectively operate and maintain the PWS as required by federal and state statutes, rules, regulations, permits, and best management practice. The department is not responsible for increased costs resulting from defects in the plans, design drawings, specifications, inspections, construction, or other subagreement documents related to the project.

*(Water Pollution Control Board; 327 IAC 14-13-1; filed Aug 28, 1998, 4:53 p.m.: 22 IR 47; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 14. Rights of Review**

327 IAC 14-14-1 Review procedures

#### **327 IAC 14-14-1 Review procedures**

**Authority:** IC 13-14-7; IC 13-14-8; IC 13-18-2; IC 13-18-3; IC 13-18-16-8

**Affected:** IC 13-11-2; IC 13-18-16

Sec. 1. A political subdivision whose financial assistance application is denied or disputes the terms contained in the financial assistance agreement, or whose preliminary engineering report or any provisions of its preliminary engineering report as defined in 327 IAC 13-8.1-3 is rejected may request a special review. The department and the agency shall conduct the review and make a determination. If further review is requested, the political subdivision may present its case to the department and agency. The department and the agency shall make a recommendation to the agency director, whose decision is final. *(Water Pollution Control Board; 327 IAC 14-14-1; filed Aug 28, 1998, 4:53 p.m.: 22 IR 48; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

## **ARTICLE 15. NPDES GENERAL PERMIT RULE PROGRAM**

Rule 1. General Provisions

Rule 2. Basic NPDES General Permit Rule Requirements

Rule 3. NOI Letter Requirements

Rule 4. Standard Conditions for NPDES General Permit Rules

- Rule 5. Storm Water Run-Off Associated with Construction Activity
- Rule 6. Storm Water Discharge Associated with Industrial Activity
- Rule 7. Facilities Engaged in Mining of Coal, Coal Processing, and Reclamation Activities
- Rule 8. Facilities Discharging Noncontact Cooling Water
- Rule 9. Wastewater Discharge Associated with Petroleum Products Terminals
- Rule 10. Wastewater Discharge Associated with Ground Water Petroleum Remediation Systems
- Rule 11. Wastewater Discharge Associated with Hydrostatic Testing of Commercial Pipelines
- Rule 12. Facilities Engaged in Sand, Gravel, Dimension Stone, or Crushed Stone Operations
- Rule 13. Storm Water Run-Off Associated with Municipal Separate Storm Sewer System Conveyances

### Rule 1. General Provisions

- 327 IAC 15-1-1 Purpose
- 327 IAC 15-1-2 Definitions
- 327 IAC 15-1-3 Department request for data
- 327 IAC 15-1-4 Enforcement

#### 327 IAC 15-1-1 Purpose

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 1. The purpose of this article is to establish NPDES general permit rules for certain classes or categories of point source discharges by prescribing the policies, procedures, and technical criteria to operate and discharge under the requirements of a NPDES general permit rule. Compliance with all requirements of applicable general permit rules may obviate the need for an individual NPDES permit issued under 327 IAC 5. A facility can operate under an individual NPDES permit and one (1) or more applicable general permit rules. *(Water Pollution Control Board; 327 IAC 15-1-1; filed Aug 31, 1992, 5:00 p.m.: 16 IR 15; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### 327 IAC 15-1-2 Definitions

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3-1.5; IC 13-7-1

Sec. 2. In addition to the definitions contained in IC 13-7-1, IC 13-1-3-1.5, 327 IAC 1, and 327 IAC 5, as amended, the following definitions apply throughout this article:

- (1) "Existing discharge" means any point source discharge of process or storm water which occurs either continuously or intermittently from a property at the time coverage under an individual NPDES permit is being sought.
- (2) "General permit rule boundary" means an area

based upon existing geographic or political boundaries indicating the area within which a facility affected by this article is located.

(3) "Individual NPDES permit" means a NPDES permit issued to one (1) facility which contains requirements specific to that facility.

(4) "Notice of intent letter" or "NOI" means a written notification indicating a person's intention to comply with the terms of a specified general permit rule in lieu of applying for an individual NPDES permit and includes information as required under 327 IAC 15-3 and the applicable general permit rule.

(5) "Storm water" means water resulting from rain, melting or melted snow, hail, or sleet.

*(Water Pollution Control Board; 327 IAC 15-1-2; filed Aug 31, 1992, 5:00 p.m.: 16 IR 15; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### 327 IAC 15-1-3 Department request for data

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7-1-17

Sec. 3. (a) Any person, as defined at IC 13-7-1-17, subject to this article shall:

- (1) establish and maintain such records;
- (2) make such reports;
- (3) install, use, and maintain such monitoring equipment or methods (including, where appropriate, biomonitoring methods);
- (4) sample such effluents, internal wastestreams where appropriate, or other material; and
- (5) provide such other data, including, but not limited to, raw materials, catalysts, intermediate products, byproducts, production rates, and related process information;

at such locations, at such times, and in such a manner, as the commissioner may reasonably prescribe.

(b) Sampling of internal wastestreams under subsection (a)(4) and the provisions of data under subsection (a)(5) shall not be required by the commissioner unless:

- (1) such data are reasonably expected to facilitate the identification or quantification of pollutants which may be released to the environment from facilities operated by the person to whom the request is made, and the identification or quantification of such pollutants could not reasonably be made by the commissioner in the absence of the requested information; or
- (2) such data are necessary to properly control wastewater treatment processes.

*(Water Pollution Control Board; 327 IAC 15-1-3; filed Aug 31, 1992, 5:00 p.m.: 16 IR 16; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 15-1-4 Enforcement**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 4. This article shall be enforced through the provisions of IC 13-7-10-5, IC 13-7-11, or IC 13-7-12, or any combination thereof, as appropriate. Penalties for violation of this article shall be governed by IC 13-7-13. (*Water Pollution Control Board; 327 IAC 15-1-4; filed Aug 31, 1992, 5:00 p.m.: 16 IR 16; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**Rule 2. Basic NPDES General Permit****Rule Requirements**

327 IAC 15-2-1	Purpose and scope
327 IAC 15-2-2	NPDES general permit rule requirements
327 IAC 15-2-3	NPDES general permit rule applicability requirements
327 IAC 15-2-4	Administrative requirement for NPDES general permit rules
327 IAC 15-2-5	Notice of intent letter
327 IAC 15-2-6	Exclusions
327 IAC 15-2-7	Effect of general permit rule
327 IAC 15-2-8	Nontransferability of notification requirements; time limits for individual NPDES permit application
327 IAC 15-2-9	Special requirements for NPDES general permit rule
327 IAC 15-2-10	Prohibitions

**327 IAC 15-2-1 Purpose and scope**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-1-4-1; IC 13-7-1-10

Sec. 1. This rule defines the basic programmatic requirements of the general permit rule program to be administered by the commissioner consistent with NPDES requirements under the Federal Act, as defined at IC 13-1-4-1, IC 13-7-1-10, and 327 IAC 5. (*Water Pollution Control Board; 327 IAC 15-2-1; filed Aug 31, 1992, 5:00 p.m.: 16 IR 16*)

**327 IAC 15-2-2 NPDES general permit rule requirements**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 2. (a) The commissioner may regulate the following discharges under NPDES general permit rules:

- (1) Point source discharges of storm water associated with industrial activity as defined in 40 CFR 122.26(b)(14) as published in the Federal Register on November 16, 1990.
- (2) Such other categories of point sources operating within the state that:

- (A) involve the same or substantially similar types of operations;
- (B) discharge the same types of wastes;
- (C) require the same effluent limitations or operating conditions; and
- (D) require the same or similar monitoring requirements.

(b) The commissioner may determine that an individual permit must be obtained under section 9 of this rule. Any person to whom this article applies may avoid compliance with this article by obtaining an individual NPDES permit.

(c) Each general permit rule shall be applicable to persons meeting the criteria of subsection (a) existing within specific boundaries designated by the commissioner in accordance with the following:

- (1) A general permit rule boundary shall correspond with existing geographic or political boundaries such as:
  - (A) designated planning areas under the Federal Act;
  - (B) regional sewer districts or sewer authorities;
  - (C) city, county, or state political boundaries;
  - (D) state highway systems;
  - (E) standard metropolitan statistical areas;
  - (F) urbanized areas as defined by the Bureau of Census according to the criteria in 39 FR 15202 (May 1, 1974); or
  - (G) any other appropriate divisions or combinations of the boundaries in this subdivision which will encompass the sources subject to the general permit rule.
- (2) Any designation of any general permit rule boundary is subject to reclassification by the commissioner:
  - (A) upon revision of a general permit rule;
  - (B) if individual NPDES permits have been issued to all persons in a category of point sources; or
  - (C) as necessary to address water quality problems effectively.

(*Water Pollution Control Board; 327 IAC 15-2-2; filed Aug 31, 1992, 5:00 p.m.: 16 IR 16; errata filed Sep 10, 1992, 12:00 p.m.: 16 IR 65*)

**327 IAC 15-2-3 NPDES general permit rule applicability requirements**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 3. (a) A general permit rule may regulate all designated categories of point sources for which a general permit rule exists, except:

- (1) as provided under section 6 or 9 of this rule or the applicable general permit rule; and
- (2) point source discharges meeting the applicability requirements of a general permit rule, who are already

subject to individual NPDES permits prior to the effective date of a general permit rule.

(b) Persons excluded from general permit rule regulation solely because they have an existing individual NPDES permit may request to be regulated under a general permit rule and may request that the individual NPDES permit be revoked or modified to remove the point source from the existing permit. Upon revocation or expiration of the individual NPDES permit, the general permit rule shall apply to such point source discharges regulated under this article.

(c) A person that holds an individual NPDES permit may have discharges regulated under an applicable general permit rule if such discharges are not addressed in the individual permit. (*Water Pollution Control Board; 327 IAC 15-2-3; filed Aug 31, 1992, 5:00 p.m.: 16 IR 17*)

### **327 IAC 15-2-4 Administrative requirement for NPDES general permit rules**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 4. A general permit rule is a permit-by-rule. Therefore, the statutory requirements for administrative agency rulemaking must be satisfied in the development of a general permit rule. (*Water Pollution Control Board; 327 IAC 15-2-4; filed Aug 31, 1992, 5:00 p.m.: 16 IR 17*)

### **327 IAC 15-2-5 Notice of intent letter**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 5. (a) Any person subject to the requirements of this article shall submit a NOI letter that complies with this section, 327 IAC 15-3, and the additional requirements in any applicable general permit rule.

(b) A NOI letter shall be submitted to the commissioner by the time specified under 327 IAC 15-3 or the time indicated in the applicable general permit rule.

(c) The person responsible for the operation of the facility from which a point source discharge of pollutants and/or storm water occurs must submit a NOI letter. (*Water Pollution Control Board; 327 IAC 15-2-5; filed Aug 31, 1992, 5:00 p.m.: 16 IR 17*)

### **327 IAC 15-2-6 Exclusions**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 6. An individual NPDES permit issued under 327 IAC 5 is required for a discharge to a receiving stream identified as an outstanding state resource water, an exceptional use water, or an outstanding national re-

source water as defined under 327 IAC 2-1-2(3), 327 IAC 2-1-11(b), or 327 IAC 2-1.5-4 or which would significantly lower the water quality, as defined under 327 IAC 5-2-11.3(b)(1) of such a water downstream of the point source discharge. (*Water Pollution Control Board; 327 IAC 15-2-6; filed Aug 31, 1992, 5:00 p.m.: 16 IR 17; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1476*)

### **327 IAC 15-2-7 Effect of general permit rule**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 7. (a) Compliance with a general permit rule constitutes compliance with all applicable standards and limitations of the Federal Act and state law.

(b) Compliance with an applicable general permit rule does not:

- (1) convey any property rights of any sort or any exclusive privileges;
- (2) authorize any injury to persons or private property or invasion of other private rights or any infringement of federal, state, or local laws or regulations; or
- (3) preempt any duty to obtain state or local assent required by law for the discharge or for construction or operation of the facility from which the discharge is made.

(*Water Pollution Control Board; 327 IAC 15-2-7; filed Aug 31, 1992, 5:00 p.m.: 16 IR 17*)

### **327 IAC 15-2-8 Nontransferability of notification requirements; time limits for individual NPDES permit application**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 4-22-2; IC 13-1-3; IC 13-7

Sec. 8. (a) Compliance with the NOI letter submission requirements under this article may not be transferred. If ownership/operation of a facility is transferred to a new person, that person must submit a NOI letter pursuant to 327 IAC 15-3 or seek coverage under an individual NPDES permit pursuant to 327 IAC 5.

(b) A person who filed a NOI letter under this article and who subsequently was requested by the commissioner to file an application for an individual NPDES permit has one hundred twenty (120) days from the time of the request by the commissioner to file the application. (*Water Pollution Control Board; 327 IAC 15-2-8; filed Aug 31, 1992, 5:00 p.m.: 16 IR 18*)

### **327 IAC 15-2-9 Special requirements for NPDES general permit rule**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 4-21.5; IC 13-11-2; IC 13-18-4

Sec. 9. (a) If a general permit rule is amended, all persons regulated by the affected general permit rule must be notified by first class mail of the amendment by the commissioner within sixty (60) days after the effective date of the amended rule. Those persons notified by the commissioner under this subsection shall:

- (1) apply for an individual NPDES permit under 327 IAC 5-3 within one hundred twenty (120) days after the effective date of the amended rule; or
- (2) submit a NOI letter containing the information required in 327 IAC 15-3-2 and the amended rule within ninety (90) days after the effective date of the amended rule.

(b) The commissioner may require any person either with an existing discharge subject to the requirements of this article or who is proposing a discharge that would otherwise be subject to the requirements of this article to apply for and obtain an individual NPDES permit if one (1) of the six (6) cases listed in this subsection occurs. Interested persons may petition the commissioner to take action under this subsection. Cases where individual NPDES permits may be required include the following:

- (1) The applicable requirements contained in this article are not adequate to ensure compliance with:
  - (A) water quality standards under 327 IAC 2-1 or 327 IAC 2-1.5; or
  - (B) the provisions that implement water quality standards contained in 327 IAC 5.
- (2) The person is not in compliance with the terms and conditions of the general permit rule.
- (3) A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants from the point source.
- (4) Effluent limitations guidelines that are more stringent than the requirements in the general permit rule are subsequently promulgated for point sources regulated by the general permit rule.
- (5) A water quality management plan containing more stringent requirements applicable to such point source is approved.
- (6) Circumstances have changed since the activity regulated under this article began so that the discharger is no longer appropriately controlled under the general permit rule, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary.

(c) If, under subsection (b), the commissioner requires an individual NPDES permit, pursuant to 327 IAC 5-3, the commissioner shall notify the person in writing that an individual NPDES permit application is required. This notice shall be issued pursuant to IC 4-21.5 and shall also include the following:

- (1) A brief statement of the reasons for this decision.

(2) An application form.

(3) A statement setting a time for the person to file the application.

(4) A statement that on the effective date of the individual NPDES permit, the general permit rule, as it applies to the individual person, shall no longer apply. The commissioner may grant additional time upon request of the applicant for completion of the application.

(d) An operator, as defined in 327 IAC 15-5-4(7), of a storm water discharge that meets the applicability requirements of the general permit rule and is not covered by an existing individual NPDES permit, must submit an application under 40 CFR 122.26 as published in the Federal Register on November 16, 1990, and 327 IAC 5-3 if the operator seeks to cover the discharge under an individual permit.

(e) On the effective date of an individual NPDES permit that is issued to a person regulated under this article, this article no longer applies to that person.

(f) Persons with a discharge meeting all the applicability criteria of more than one (1) general permit rule shall comply with all applicable general permit rules. (*Water Pollution Control Board; 327 IAC 15-2-9; filed Aug 31, 1992, 5:00 p.m.: 16 IR 18; errata filed Sep 10, 1992, 12:00 p.m.: 16 IR 65; errata, 16 IR 751; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1476*)

### 327 IAC 15-2-10 Prohibitions

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 10. No general permit rule shall be promulgated and issued where the terms and conditions of the permit rule do not comply with the applicable guidelines and requirements of the Federal Act or effective regulations promulgated under the Federal Act, 327 IAC 2, 327 IAC 5, or this article. (*Water Pollution Control Board; 327 IAC 15-2-10; filed Aug 31, 1992, 5:00 p.m.: 16 IR 18*)

### Rule 3. NOI Letter Requirements

- |                |   |
|----------------|---|
| 327 IAC 15-3-1 | Purpose   |
| 327 IAC 15-3-2 | Content requirements of a NOI letter                            |
| 327 IAC 15-3-3 | Deadline for submittal of a NOI letter; additional requirements |
| 327 IAC 15-3-4 | Procedures for exemption from an individual NPDES permit        |

### 327 IAC 15-3-1 Purpose

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 1. The purpose of this rule is to establish the requirements and procedures for submitting a NOI letter under a general permit rule. The NOI letter shall be sent

to the following address:

Indiana Department of Environmental Management  
Office of Water Management  
105 South Meridian Street  
P.O. Box 6015  
Indianapolis, Indiana 46206  
Attention: Permits Section, General Permit Desk  
(*Water Pollution Control Board; 327 IAC 15-3-1; filed Aug 31, 1992, 5:00 p.m.: 16 IR 19; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 15-3-2 Content requirements of a NOI letter**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 2. The NOI letter shall include the following:

- (1) Name, mailing address, and location of the facility for which the notification is submitted.
- (2) Standard Industrial Classification (SIC) codes, as defined in 327 IAC 5, up to four (4) digits, that best represent the principal products or activities provided by the facility.
- (3) The person's name, address, telephone number, ownership status, and status as federal, state, private, public, or other entity.
- (4) The latitude and longitude of the approximate center of the facility to the nearest fifteen (15) seconds, or the nearest quarter section (if the section, township, and range are provided) in which the facility is located.
- (5) The name of receiving water, or, if the discharge is to a municipal separate storm sewer, the name of the municipal operator of the storm sewer and the ultimate receiving water.
- (6) A description of how the facility complies with the applicability requirements of the general permit rule.
- (7) Any additional NOI letter information required by the applicable general permit rule.
- (8) The NOI letter must be signed by a person meeting the signatory requirements in 327 IAC 15-4-3(g).

(*Water Pollution Control Board; 327 IAC 15-3-2; filed Aug 31, 1992, 5:00 p.m.: 16 IR 19; errata filed Sep 10, 1992, 12:00 p.m.: 16 IR 65; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 15-3-3 Deadline for submittal of a NOI letter; additional requirements**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 3. (a) Any person proposing a new discharge that will be subject to a general permit rule, except for construction activity under 327 IAC 15-5, shall submit a

NOI letter and additional information as required by the applicable general permit rule at least one hundred eighty (180) days before the date on which the discharge is to commence, unless permission for a later date has been granted by the commissioner or is established in the applicable general permit rule. A construction activity NOI letter shall be submitted in accordance with 327 IAC 15-5-6.

(b) Any person operating coverage under a general permit rule with an existing discharge shall submit a NOI letter within ninety (90) days of the effective date of the applicable general permit rule, unless permission for a later date has been granted by the commissioner or is established in the applicable general permit rule. (*Water Pollution Control Board; 327 IAC 15-3-3; filed Aug 31, 1992, 5:00 p.m.: 16 IR 19; errata filed Sep 10, 1992, 12:00 p.m.: 16 IR 65; errata, 16 IR 898; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 15-3-4 Procedures for exemption from an individual NPDES permit**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 4. Except as provided for in the applicable general permit rule, the following apply:

- (1) A person with an existing NPDES permit will be exempt from the requirement of that permit when he submits the applicable NOI letter and complies with all other applicable requirements of this article.
- (2) A person with a new facility to which this article applies must comply with all applicable requirements of this article including the submittal of the appropriate NOI letter.

(*Water Pollution Control Board; 327 IAC 15-3-4; filed Aug 31, 1992, 5:00 p.m.: 16 IR 19; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **Rule 4. Standard Conditions for NPDES General Permit Rules**

327 IAC 15-4-1	General conditions
327 IAC 15-4-2	Management requirements
327 IAC 15-4-3	Reporting requirements

### **327 IAC 15-4-1 General conditions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-1-6; IC 13-7-13-3

Sec. 1. (a) The conditions in this section apply to all NPDES general permit rules.

(b) Any violation of this article constitutes a violation of the Federal Act and the Indiana Environmental Management Act and is grounds for enforcement action and/or requirement to obtain an individual NPDES permit.

(c) Under the Indiana Environmental Management Act at IC 13-7-13-3, any person who violates "any rule or standard adopted by one (1) of the boards" is subject to a civil penalty not to exceed twenty-five thousand dollars (\$25,000) per day of such violation. Any person who willfully or negligently violates "any rule or standard adopted by one (1) of the boards" is subject to a fine of not less than two thousand five hundred dollars (\$2,500) nor more than twenty-five thousand dollars (\$25,000) per day of violation, or by imprisonment for not more than one (1) year, or both. If the conviction is for a violation committed after a first conviction of such person under this subsection, punishment shall be a fine of not more than fifty thousand dollars (\$50,000) per day of violation, or by imprisonment for not more than two (2) years, or both. Except as provided in applicable general permit rule conditions on bypassing under section 2(c) of this rule, and upsets under section 2(d) of this rule, nothing in this article shall be construed to relieve persons in violation of it from civil or criminal penalties for non-compliance.

(d) Persons in violation of this article shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from their noncompliance.

(e) Persons regulated by this article shall furnish to the commissioner, within a reasonable time, any information which the commissioner may request to determine whether cause exists for revoking and reapproving or terminating the approval to discharge under this article or to determine compliance with this article. Those persons shall also furnish to the commissioner, upon request, copies of records required to be kept by this article.

(f) Notwithstanding the provisions of 327 IAC 15-2-9, if a toxic effluent standard, prohibition, or sediment, wet weather, or biological criteria (including any schedule of compliance specified in such effluent standard or prohibition) is established under the Federal Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in an applicable general permit rule, the rule shall be modified to conform to the toxic effluent standard or prohibition. The person shall comply with effluent standards or prohibitions established under the Federal Act for toxic pollutants injurious to human health within the time provided in the regulations that establish those standards or prohibitions, even if the rule has not yet been modified to incorporate the requirement.

(g) When cyanide or cyanogen compounds are used in any of the processes at a facility regulated under this article, the person responsible for that facility shall provide approved facilities for the containment of any losses of these compounds in accordance with the requirements under 327 IAC 2-2-1.

(h) Persons regulated by this article shall have all wastewater treatment facilities, if any, under the direct supervision of an operator certified by the commissioner as required under IC 13-1-6 and 327 IAC 8-12.

(i) Nothing in this article shall be construed to relieve anyone from any responsibility, liability, or penalty to which they are or may be subject to under the Federal Act.

(j) The applicability of this article does not convey any property rights of any sort or any exclusive privileges.

(k) The provisions of this article are severable and, if any provision of this article or the application of any provision of this article to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this article shall not be affected thereby.

(l) Persons regulated by this article shall allow the commissioner, or an authorized representative, (including an authorized contractor or representative of another governmental agency acting as a representative on behalf of the commissioner), at reasonable times, and in a manner to minimize disruption of the business, upon the presentation of credentials and such other documents as may be required by law, to:

(1) enter upon the premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this article;

(2) have access to and copy, at reasonable times, any records that must be kept under the conditions of this article;

(3) inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this article; and

(4) sample or monitor, at reasonable times, for the purposes of assuring compliance with the applicable general permit rule conditions or as otherwise authorized by the Federal Act, any substances or parameters at any location.

(m) Persons regulated by this article shall not construct, install, or modify any water pollution control facility without a valid construction permit issued by the Indiana department of environmental management under 327 IAC 3-2. (*Water Pollution Control Board; 327 IAC 15-4-1; filed Aug 31, 1992, 5:00 p.m.: 16 IR 19; errata filed Sep 10, 1992, 12:00 p.m.: 16 IR 65; errata, 16 IR 751; errata, 16 IR 898*)

### **327 IAC 15-4-2 Management requirements**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 2. (a) Persons regulated by this article shall, at all

times, maintain in good working order and efficiently operate all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the person and which are necessary for achieving compliance with the terms and conditions of this article.

(b) The following definitions, with regard to bypass of treatment facilities, apply throughout this rule:

(1) "Bypass" means the intentional diversion of a wastestream from any portion of a treatment facility normally utilized for treatment of the wastestream.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production at the facility.

(c) Bypass which causes, or is likely to cause, applicable effluent limitations to be exceeded is prohibited unless the following conditions are met:

(1) Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage.

(2) There are no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal period of equipment downtime.

(3) The person submits notice of an unanticipated bypass to the commissioner within twenty-four (24) hours of becoming aware of the bypass. (If this information is provided orally, a written submission must be provided within five (5) days.) Where the person knows, or should have known, in advance of the need for a bypass, this prior notification shall be submitted for approval to the commissioner, if possible, at least ten (10) days before the date of the bypass.

An anticipated bypass which meets the criteria under this subsection may be allowed under conditions determined to be necessary by the commissioner to minimize any adverse effects.

(d) With regard to upset conditions, as used in this rule, "upset" means an exceptional incident in which there is unintentional and temporary noncompliance with the requirements of the applicable general permit rule because of factors beyond the reasonable control of the responsible person. An upset does not include noncompliance to the extent caused by any of the following:

- (1) Operational error.
- (2) Improperly designed treatment facilities.
- (3) Inadequate treatment facilities.
- (4) Lack of preventive maintenance.
- (5) Careless or improper operation.

(e) An upset shall constitute an affirmative defense to an action brought for noncompliance with such effluent limitations if the requirements under subsection (d) are met.

(f) A person regulated under this article who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:

(1) An upset occurred and the regulated person has identified the specific cause of the upset, if possible.

(2) The facility was, at the time being operated, in compliance with proper operation and maintenance procedures.

(3) The regulated person complied with any remedial measures required under section 1(d) of this rule.

(g) Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of waters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters and to be in compliance with all Indiana statutes and rules relative to liquid and/or solid waste disposal. (*Water Pollution Control Board; 327 IAC 15-4-2; filed Aug 31, 1992, 5:00 p.m.: 16 IR 21*)

### **327 IAC 15-4-3 Reporting requirements**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7-13-3; IC 35-50-3-3

Sec. 3. (a) Any change in the information submitted in the NOI letter should be reported as soon as practicable to the commissioner. Changes which are reasonably expected to alter the characteristics of the discharge regulated under a general permit rule must be reported prior to the change. Following such notice, the commissioner may request the person to submit an application for an individual NPDES permit.

(b) Monitoring results shall be reported at the intervals and in the form specified in the appropriate general permit rule.

(c) The following are requirements for twenty-four (24) hour reporting:

(1) Persons regulated by this article shall orally report information to the office of enforcement at (317) 232-8603 on the following types of noncompliance within one (1) business day from the time the person becomes aware of such noncompliance:

(A) Any unanticipated bypass which exceeds any effluent limitation in the applicable general permit rule.

(B) Violation of a maximum daily discharge limitation for any of the pollutants listed by the commissioner in the rule to be reported within one (1) business day.

(C) Any noncompliance which may pose a significant danger to human health or the environment.

(2) A written submission shall also be provided to the office of enforcement within five (5) business days of the time the person becomes aware of the circumstances. The written submission shall contain the following:

(A) A description of the noncompliance and its cause.

(B) The period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated time it is expected to continue.

(C) Steps taken or planned to reduce and eliminate the noncompliance and prevent its recurrence.

The commissioner may waive the written report on a case-by-case basis if the oral report has been received within one (1) business day.

(d) Persons regulated under this article shall report any instance of noncompliance not reported under subsection (c) at the time the pertinent discharge monitoring report is submitted. The report shall contain the information specified under subsection (c)(2).

(e) Where the person becomes aware that he failed to submit any relevant facts, or submitted incorrect information in a NOI letter, or in any report to the commissioner, the person shall promptly submit such facts or corrected information.

(f) Persons regulated under this article shall notify the commissioner as soon as they know, or have reason to believe, the following:

(1) That any activity has occurred, or will occur, which would result in the discharge of any pollutant identified as toxic, under the Federal Act which is not limited in the applicable general permit rule, if that discharge will exceed the highest of the following notification levels:

(A) One hundred (100) micrograms per liter.

(B) Two hundred (200) micrograms per liter for acrolein and acrylonitrile; five hundred (500) micrograms per liter for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and one (1) milligram per liter for antimony.

(C) A level established elsewhere in the rule by the commissioner.

(2) That it has begun, or expects to begin, to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the NOI letter.

(g) Signatory requirements shall be as follows:

(1) All reports required by this article and other information requested by the commissioner shall be signed by a person described as follows, or by a duly autho-

rized representative of that person:

(A) For a corporation, by a responsible corporate officer. As used in this section, "responsible corporate officer" means:

(i) a president, secretary, treasurer, any vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or

(ii) the manager of one (1) or more manufacturing, production, or operating facilities employing more than two hundred fifty (250) persons or having gross annual sales or expenditures exceeding twenty-five million dollars (\$25,000,000) (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(B) For a partnership or sole proprietorship, by a general partner or the proprietor, respectively.

(C) For a municipality, state, federal, or other public agency or political subdivision thereof, by either a principal executive officer or ranking elected official.

(2) A person is a duly authorized representative only if:

(A) the authorization is made in writing by a person described under subdivision (1);

(B) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(C) the written authorization is submitted to the commissioner.

(3) Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(h) Except for data determined to be confidential under 327 IAC 12 [327 IAC 12 was repealed filed Mar 9,

2000, 7:47 a.m.: 23 IR 1637. See 327 IAC 12.1.J, all reports prepared in accordance with the terms of the applicable general permit rule shall be available for public inspection at the offices of the Indiana department of environmental management and the U.S. Environmental Protection Agency Regional Administrator. As required by the Federal Act, information contained in the NOI letter and effluent data shall not be considered confidential.

(i) The Indiana Environmental Management Act at IC 13-7-13-3(b) provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under the applicable general permit rule, including monitoring reports or reports of compliance or noncompliance, shall, upon conviction, be punished by a fine of not more than ten thousand dollars (\$10,000) per violation, or by imprisonment for not more than six (6) months per violation, or by both. The Federal Act, as well as IC 13-7-13-3 and IC 35-50-3-3, provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this article shall, upon conviction, be punished by a fine of not more than ten thousand dollars (\$10,000) per violation, or by imprisonment for not more than one hundred eighty (180) days per violation, or by both. (*Water Pollution Control Board; 327 IAC 15-4-3; filed Aug 31, 1992, 5:00 p.m.: 16 IR 21*)

#### **Rule 5. Storm Water Run-Off Associated with Construction Activity**

327 IAC 15-5-1	Purpose
327 IAC 15-5-2	Applicability of general permit rules
327 IAC 15-5-3	General permit rule boundary
327 IAC 15-5-4	Definitions
327 IAC 15-5-5	Additional NOI letter requirements
327 IAC 15-5-6	Deadline for submittal of a NOI letter; additional information
327 IAC 15-5-7	General conditions for construction activity erosion control measures
327 IAC 15-5-8	Project termination
327 IAC 15-5-9	Standard conditions
327 IAC 15-5-10	Inspection and enforcement
327 IAC 15-5-11	Notification of completion

#### **327 IAC 15-5-1 Purpose**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 1. The purpose of this rule is to reduce pollutants, principally sediment as a result of soil erosion, in storm water discharges into surface waters of the state from sites where construction activity disturbs five (5) acres or more of the site. However, in contemplation of recent

federal court decisions, persons with sites greater than one (1) acre but less than five (5) acres are invited to comply with this rule as well. (*Water Pollution Control Board; 327 IAC 15-5-1; filed Aug 31, 1992, 5:00 p.m.: 16 IR 23; errata, 16 IR 898; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 15-5-2 Applicability of general permit rules**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 2. The requirements under this rule apply to all persons who:

- (1) do not obtain an individual NPDES permit under 327 IAC 15-2-6;
- (2) meet the general permit rule applicability requirements under 327 IAC 15-2-3; and
- (3) are involved in construction activity, which includes clearing, grading, excavation, and other land disturbing activities, except operations that result in the disturbance of less than five (5) acres of total land area and which are not part of a larger common plan of development or sale.

(*Water Pollution Control Board; 327 IAC 15-5-2; filed Aug 31, 1992, 5:00 p.m.: 16 IR 23; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 15-5-3 General permit rule boundary**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 3. Facilities existing within the boundaries of the state of Indiana affected by this rule are regulated under this rule. (*Water Pollution Control Board; 327 IAC 15-5-3; filed Aug 31, 1992, 5:00 p.m.: 16 IR 23; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 15-5-4 Definitions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3-1.5; IC 13-4.1; IC 13-7-1

Sec. 4. In addition to the definitions contained in IC 13-7-1, IC 13-1-3-1.5, 327 IAC 1, 327 IAC 5, and 327 IAC 15-1-2, the following definitions apply throughout this rule:

- (1) "Agricultural land use" means use of land for the production of animal or plant life, including forestry, pasturing or yarding of livestock, and planting, growing, cultivating, and harvesting crops for human or livestock consumption.
- (2) "Erosion" means the detachment and movement of soil, sediment, or rock fragments by water, wind, ice, or gravity.
- (3) "Erosion control measure" means a practice, or a

combination of practices, to control erosion and resulting sedimentation and/or off-site damages.

(4) "Erosion control plan" means a written description and site plan of pertinent information concerning erosion control measures.

(5) "Land disturbing activity" means any manmade change of the land surface, including removing vegetative cover, excavating, filling, transporting, and grading. In the context of this rule, agricultural land disturbing activities, coal mining activities permitted by the DNR under IC 13-4.1, and active landfills permitted by the Indiana department of environmental management where the permit requires soil erosion control are excluded.

(6) "Nonagricultural land use" means commercial use of land for the manufacturing and wholesale or retail sale of goods or services, residential or institutional use of land intended primarily to shelter people, highway use of land including lanes, alleys, and streets, and other land uses not included in agricultural land use.

(7) "Operator" means the person required to submit the NOI letter under this article, and required to comply with the terms of this rule.

(8) "Site" means the entire area included in the legal description of the land on which land disturbing activity is to be performed.

*(Water Pollution Control Board; 327 IAC 15-5-4; filed Aug 31, 1992, 5:00 p.m.: 16 IR 23; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-5-5 Additional NOI letter requirements**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 5. In addition to the NOI letter requirements under 327 IAC 15-3, the following information must be submitted by the operator with a NOI letter under this rule:

- (1) A brief description of the construction project, including, but not limited to, a statement of the total acreage of the site.
- (2) Estimated timetable for land disturbing activities and installation of erosion control measures.
- (3) Statement of the number of acres to be involved in land disturbing activities.
- (4) A written certification by the operator that:
  - (A) the erosion control measures included in the erosion control plan comply with the requirements under sections 7 and 9 of this rule and that the plan complies with applicable state, county, or local erosion control requirements;
  - (B) the erosion control measures will be implemented in accordance with the plan;

(C) verification that an appropriate state, county, or local erosion control authority and the soil and water conservation district office have been sent a copy of the plan for review; and

(D) verification that implementation of the erosion control plan will be conducted by personnel trained in erosion control practices.

(5) Proof of publication in a newspaper of general circulation in the affected area that notified the public that a construction activity under this rule is to commence.

*(Water Pollution Control Board; 327 IAC 15-5-5; filed Aug 31, 1992, 5:00 p.m.: 16 IR 24; errata filed Sep 10, 1992, 12:00 p.m.: 16 IR 65; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-5-6 Deadline for submittal of a NOI letter; additional information**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 6. All information required under 327 IAC 15-3 and section 5 of this rule shall be submitted to the commissioner prior to the initiation of land disturbing activities. *(Water Pollution Control Board; 327 IAC 15-5-6; filed Aug 31, 1992, 5:00 p.m.: 16 IR 24; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-5-7 General conditions for construction activity erosion control measures**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 7. (a) The operator shall develop an erosion control plan in accordance with the requirements under this section.

(b) The following requirements shall be met on all sites during the period when active land disturbing activities occur:

- (1) Sediment-laden water which otherwise would flow from the site shall be detained by erosion control practices appropriate to minimize sedimentation in the receiving stream. No storm water shall be discharged from the site in a manner causing erosion in the receiving channel at the point of discharge.
- (2) Appropriate measures shall be taken by the operator to minimize or eliminate wastes or unused building materials, including, but not limited to, garbage, debris, cleaning wastes, wastewater, and other substances from being carried from a site by run-off. Proper disposal or management of all wastes and unused building materials, appropriate to the nature of the waste or material, is required.

(3) Sediment being tracked from a site onto public or private roadways shall be minimized. This can be accomplished initially by a temporary gravel construction entrance in addition to a well-planned layout of roads, access drives, and parking areas of sufficient width and length, or other appropriate measures.

(4) Public or private roadways shall be kept cleared of accumulated sediment. Bulk clearing of accumulated sediment shall not include flushing the area with water. Cleared sediment shall be returned to the point of likely origin or other suitable location.

(5) All on-site storm drain inlets shall be protected against sedimentation with straw bales, filter fabric, or equivalent barriers meeting accepted design criteria, standards, and specification for that purpose.

(6) The following items apply during the time the construction activity is taking place:

(A) Storm water drainage from adjacent areas that naturally pass through the site shall be controlled by diverting it around disturbed areas. Alternatively, the existing channel must be protected and/or improved to prevent erosion or sedimentation from occurring.

(B) Run-off from a disturbed area shall be controlled by one (1) or more of the following measures:

(i) Except as prevented by inclement weather conditions or other circumstances beyond the control of the operator, appropriate vegetative practices will be initiated within seven (7) days of the last land disturbing activity at the site regulated by this rule. Appropriate vegetative practices include, but are not limited to, seeding, sodding, mulching, covering, or by other equivalent erosion control measures.

(ii) The erosion control plan shall be implemented on disturbed areas within the construction site. The plan shall include erosion control measures as appropriate, such as, but not limited to, the following:

(AA) Sediment detention basins.

(BB) Sediment control practices, such as filter strips, diversions, straw bales, filter fences, inlet protection measures, slope minimization, phased construction, maximizing tree coverage, temporary and permanent seeding of vegetation, mulching, and sodding.

All measures involving erosion control practices shall be designed and installed under the guidance of a qualified professional experienced in erosion control and following the specifications and criteria under this subsection. All other nonengineered erosion control measures involving vegetation should be installed according to accepted specifications and criteria under this subsection.

(c) During the period of construction activity at a site, all erosion control measures necessary to meet the requirements of this rule shall be maintained by the operator.

(d) All erosion control measures required to comply with this rule shall meet the design criteria, standards, and specifications for erosion control measures established by the department in guidance documents similar to, or as effective as, those outlined in the Indiana Handbook for Erosion Control in Developing Areas from the division of soil conservation, Indiana department of natural resources and the Field Office Technical Guide from the Soil Conservation Service. The erosion control plan shall include, but is not limited to, the following:

(1) A map of the site in adequate detail to show the site and adjacent areas, including the following:

(A) Site boundaries and adjacent lands which accurately portray the site location.

(B) Lakes, streams, channels, ditches, wetlands, and other water courses on and adjacent to the site.

(C) One hundred (100) year floodplains, floodway fringes, and floodways.

(D) Location of the predominant soil types which may be determined by the United States Department of Agriculture, SCS County Soil Survey, or an equivalent publication, or as determined by a certified professional soil scientist.

(E) Location and delineation of vegetative cover such as grass, weeds, brush, and trees.

(F) Location and approximate dimensions of storm water drainage systems and natural drainage patterns on, and immediately adjacent to, the site.

(G) Locations and approximate dimensions of utilities, structures, roads, highways, and paving.

(H) Site topography, both existing and planned, at a contour interval appropriate to indicate drainage patterns.

(I) Potential areas where point source discharges of storm water may enter ground water, if any.

(2) A plan of final site conditions on the same scale as the existing site map showing the site changes.

(3) A site construction plan shall include, but is not limited to, the following:

(A) Locations and approximate dimensions of all proposed land disturbing activities.

(B) Potential locations of soil stockpiles.

(C) Locations and approximate dimensions of all erosion control measures necessary to meet the requirements of this rule.

(D) Schedule of the anticipated initiation and completion dates of each land disturbing activity, including the installation of erosion control measures needed to meet the requirements of this rule.

(E) Provisions, including a schedule, for maintenance of the erosion control measures during construction.

(F) Where feasible, preserve vegetation that exists on the site prior to the initiation of land disturbing activities.

*(Water Pollution Control Board; 327 IAC 15-5-7; filed Aug 31, 1992, 5:00 p.m.: 16 IR 24; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-5-8 Project termination**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 8. (a) The operator shall plan an orderly and timely termination of the land disturbing activities which shall include the following:

(1) Allowing the installation of utility lines on the site, whenever practicable, prior to final land grading, seeding, and mulching of the site.

(2) Implementing erosion control measures which are to remain on the site.

(b) The commissioner may, subsequent to termination of a project, inspect the site to evaluate the adequacy of the remaining erosion control measures.

(c) Maintenance of the remaining erosion control measures shall be the responsibility of the occupier of the property after the operator has terminated land disturbing activities. *(Water Pollution Control Board; 327 IAC 15-5-8; filed Aug 31, 1992, 5:00 p.m.: 16 IR 25; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-5-9 Standard conditions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 9. The standard conditions for NPDES general permit rules under 327 IAC 15-4 shall apply to this rule. *(Water Pollution Control Board; 327 IAC 15-5-9; filed Aug 31, 1992, 5:00 p.m.: 16 IR 26; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-5-10 Inspection and enforcement**

**Authority:** IC 13-13-5-2; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2; IC 13-18-3-3; IC 13-18-3-13; IC 13-18-4-1; IC 13-18-4-3

**Affected:** IC 13-14-10; IC 13-15-7; IC 13-18-3; IC 13-18-4; IC 13-30

Sec. 10. (a) The department or its designated representative may inspect any site involved in land disturbing activities regulated by this rule at reasonable times. The erosion control plan must be readily accessible for review at the time of the inspection.

(b) All persons engaging in land disturbing activity on a site shall be responsible for complying with the soil erosion control plan for that site and the provisions of this rule.

(c) The department shall investigate potential violations of this rule to determine which person may be responsible for the violation. The department shall, if appropriate, consider public records of ownership, building permits issued by local units of government, and other relevant information, which may include site inspections, soil erosion control plans, notices of intent, and other information related to the specific facts and circumstances of the potential violation. Any person causing or contributing to a violation of any provisions of this rule shall be subject to enforcement and penalty under IC 13-14-10, IC 13-15-7, and IC 13-30.

(d) If remaining erosion control measures are not properly maintained by the person occupying or owning the property, the department may pursue enforcement against that person for correction of deficiencies under 327 IAC 15-1-4. *(Water Pollution Control Board; 327 IAC 15-5-10; filed Aug 31, 1992, 5:00 p.m.: 16 IR 26; filed Mar 23, 2000, 4:15 p.m.: 23 IR 1912; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-5-11 Notification of completion**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 11. The operator shall notify the commissioner, in writing, upon completion of the construction activity. *(Water Pollution Control Board; 327 IAC 15-5-11; filed Aug 31, 1992, 5:00 p.m.: 16 IR 26; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

## **Rule 6. Storm Water Discharge Associated with Industrial Activity**

327 IAC 15-6-1	Purpose
327 IAC 15-6-2	Applicability of the industrial activity general permit rule
327 IAC 15-6-3	General permit rule boundary
327 IAC 15-6-4	Definitions
327 IAC 15-6-5	Additional NOI letter requirements
327 IAC 15-6-6	Deadline for submittal of a NOI letter; additional information
327 IAC 15-6-7	General conditions for storm water discharges associated with industrial activity
327 IAC 15-6-8	Standard conditions
327 IAC 15-6-9	Inspection and enforcement

### **327 IAC 15-6-1 Purpose**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 1. The purpose of this rule is to establish require-

ments for point source discharges of storm water associated with industrial activity. Storm water discharges associated with construction activity are regulated under rule 5 of this article [327 IAC 15-5] only. (*Water Pollution Control Board; 327 IAC 15-6-1; filed Aug 31, 1992, 5:00 p.m.: 16 IR 26; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 15-6-2 Applicability of the industrial activity general permit rule**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 2. The requirements under this rule apply to all persons who:

- (1) are not prohibited from regulation under a NPDES general permit rule under 327 IAC 15-2-6;
- (2) meet the NPDES general permit rule applicability requirements under 327 IAC 15-2-3; and
- (3) have a new or existing point source discharge composed entirely of storm water associated with industrial activity, except for categories, in effect on February 12, 1992, of facilities that have storm water effluent guidelines for at least one (1) of their subcategories. These categories include:
  - (A) cement manufacturing (40 CFR 411);
  - (B) feedlots (40 CFR 412);
  - (C) fertilizer manufacturing (40 CFR 418);
  - (D) petroleum refining (40 CFR 419);
  - (E) phosphate manufacturing (40 CFR 422);
  - (F) steam electric power generation (40 CFR 423);
  - (G) coal mining (40 CFR 434);
  - (H) mineral mining and processing (40 CFR 436);
  - (I) ore mining and dressing (40 CFR 440); and
  - (J) asphalt (40 CFR 443).

If a facility is classified in one (1) of the subcategories that have storm water effluent guidelines, an individual storm water permit application must be submitted. (*Water Pollution Control Board; 327 IAC 15-6-2; filed Aug 31, 1992, 5:00 p.m.: 16 IR 26; errata, 16 IR 751; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 15-6-3 General permit rule boundary**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3-1.5; IC 13-7-1

Sec. 3. Facilities existing within the boundaries of the state of Indiana affected by this rule are regulated under this rule. (*Water Pollution Control Board; 327 IAC 15-6-3; filed Aug 31, 1992, 5:00 p.m.: 16 IR 26; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 15-6-4 Definitions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3-1.5; IC 13-7-1; IC 13-7-2-15

Sec. 4. In addition to the definitions contained in IC 13-7-1, IC 13-1-3-1.5, 327 IAC 5, and 327 IAC 15-1-2, the following definitions apply throughout this rule:

(1) "Measurable storm event" means a precipitation event which results in a total measured precipitation accumulation equal to, or greater than, one-tenth (0.1) inch of rainfall.

(2) "Storm water discharge associated with industrial activity" means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program under 40 CFR Part 122, in effect on February 12, 1992. For the categories of industries identified in clauses (A) through (I), the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or byproducts used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process wastewaters (as defined at 40 CFR Part 401, in effect on February 12, 1992); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the categories of industries identified in clause (J), the term includes only storm water discharges from all the areas (except access roads and rail lines) that are listed in the previous sentence where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, byproducts, or industrial machinery are exposed to storm water. For the purposes of this paragraph, material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, byproduct, or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. The following facility types are considered to be

involved in industrial activity:

(A) Facilities subject to storm water effluent limitation guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR Subchapter N as referenced in 327 IAC 5-12-3 (except facilities with toxic pollutant effluent standards which are exempted under clause (J)).

(B) Facilities classified under the following SIC codes:

- (i) 24 (lumber and wood products, except 2434-wood kitchen cabinets).
- (ii) 26 (paper and allied products, except 265-paperboard containers and boxes and 267).
- (iii) 28 (chemicals and allied products, except 283-drugs).
- (iv) 29 (petroleum and coal products).
- (v) 311 (leather tanning and finishing).
- (vi) 32 (stone, clay, and glass products, except 323-products of purchased glass).
- (vii) 33 (primary metal industries).
- (viii) 3441 (fabricated structural metal).
- (ix) 373 (ship and boat building and repairing).

(C) Mining operations classified as SIC codes:

- (i) 10 (metal mining);
- (ii) 11 (anthracite mining);
- (iii) 12 (coal mining);
- (iv) 13 (oil and gas extraction); and
- (v) 14 (nonmetallic minerals, except fuels).

(D) Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under Subtitle C of RCRA as defined in IC 13-7-2-15.

(E) Landfills, land application sites, and open dumps that receive, or have received, any industrial wastes (waste that is received from any of the facilities described under this subdivision) including those that are subject to requirements under Subtitle D of RCRA as defined in IC 13-7-2-15.

(F) Facilities involved in the recycling of materials, including metal scrap yards, battery reclaimers, salvage yards, and automobile junkyards, including, but not limited to, those classified as SIC codes:

- (i) 5015 (motor vehicles parts, used); and
- (ii) 5093 (scrap and waste materials).

(G) Steam electric power generating facilities, including coal handling sites.

(H) Transportation facilities classified as SIC codes:

- (i) 40 (railroad transportation);
- (ii) 41 (local and interurban passenger transit);
- (iii) 42 (trucking and warehousing, except 4221-25);
- (iv) 43 (United States Postal Service);
- (v) 44 (water transportation);

(vi) 45 (transportation by air); and

(vii) 5171 (petroleum bulk stations and terminals); which have vehicle maintenance, solvent based industrial equipment cleaning, or airport de-icing areas. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), solvent based industrial equipment cleaning operations, airport de-icing operations, or which are otherwise identified under this subsection are associated with industrial activity.

(I) Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of one (1.0) million gallons per day or more, or that are required to have an approved pretreatment program under 40 CFR 403. Not included is farmland, domestic gardens, or land used for sludge management where sludge is beneficially reused, and which is not physically located in the confines of the facility or areas that are in compliance with the Federal Act.

(J) Facilities classified under the following SIC codes:

- (i) 20 (food and kindred products).
- (ii) 21 (tobacco products).
- (iii) 22 (textile mill products).
- (iv) 23 (apparel and other textile products).
- (v) 2434 (wood kitchen cabinets).
- (vi) 25 (furniture and fixtures).
- (vii) 265 (paperboard containers and boxes).
- (viii) 267.
- (ix) 27 (printing and publishing).
- (x) 283 (drugs).
- (xi) 285 (paints, varnishes, lacquers, enamels, and allied products).
- (xii) 30 (rubber and miscellaneous plastic products).
- (xiii) 31 (leather and leather products, except 311).
- (xiv) 323 (products of purchased glass).
- (xv) 34 (fabricated metal products, except 3441).
- (xvi) 35 (industrial machinery and equipment).
- (xvii) 36 (electronic and other electric equipment).
- (xviii) 37 (transportation equipment, except 373).
- (xix) 38 (instruments and related products).
- (xx) 39 (miscellaneous manufacturing industries).
- (xxi) 4221 (farm product warehousing and storage).
- (xxii) 4222 (refrigerated warehousing and storage).
- (xxiii) 4223.

(xxiv) 4224 (household goods warehousing and storage).

(xxv) 4225 (general warehousing and storage); which are not otherwise included under clauses (B) through (I) only need to apply for regulation under this rule when storm water is potentially exposed to industrial activity.

*(Water Pollution Control Board; 327 IAC 15-6-4; filed Aug 31, 1992, 5:00 p.m.: 16 IR 27; errata filed Sep 10, 1992, 12:00 p.m.: 16 IR 65; errata, 16 IR 751; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-6-5 Additional NOI letter requirements**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 5. In addition to the NOI letter requirements under 327 IAC 15-3, the following information must be submitted with the NOI letter under this rule:

- (1) Name of responsible corporate officer and/or written authorization for an alternate person or position to act as the duly authorized representative for that person, if appropriate, who will be responsible for all signatory responsibilities for the facility under 327 IAC 15-4-3(g).
- (2) Identification of the number and location of each point source discharge of storm water associated with industrial activity and the corresponding industrial activity associated with the drainage area of each point source discharge.
- (3) Identification of substantially similar point source discharges of storm water on the site, and, if appropriate, the outfall to be monitored as representative of all such discharge points. Also, explain the rationale used to identify why certain point sources are similar.

*(Water Pollution Control Board; 327 IAC 15-6-5; filed Aug 31, 1992, 5:00 p.m.: 16 IR 28; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-6-6 Deadline for submittal of a NOI letter; additional information**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 6. All information required under 327 IAC 15-3 and section 5 of this rule shall be submitted to the commissioner in accordance with 327 IAC 15-3-3, except, for persons that operate under 327 IAC 15-5 and that are affected by this rule, the NOI letter shall be submitted one hundred eighty (180) days before completion of construction. *(Water Pollution Control Board; 327 IAC 15-6-6; filed Aug 31, 1992, 5:00 p.m.: 16 IR 28; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-6-7 General conditions for storm water discharges associated with industrial activity**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 7. (a) The person regulated under this rule shall develop a storm water pollution prevention plan which:

- (1) identifies potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility;
- (2) describes practices to be used in reducing the potential for pollutants to be exposed to storm water; and
- (3) assures compliance with the terms and conditions of this rule.

(b) For each area of the plant that generates storm water discharges associated with industrial activity with a reasonable potential for containing significant amounts of pollutants, a plan shall contain the following:

- (1) A description of potential pollutant sources as follows:

- (A) The plan must provide a description of areas on the site reasonably expected to be sources which add significant amounts of pollutants to storm water discharges such as areas used for the following:
  - (i) Loading or unloading of dry bulk materials or liquids.
  - (ii) Outdoor storage of raw materials, intermediary products, or final products, or waste products.
  - (iii) Outdoor process activities.
  - (iv) Dust or particulate generating processes.
  - (v) Unauthorized connections or management practices.
  - (vi) Waste disposal practices.
  - (vii) Areas upon which pesticides are applied.

(B) To provide such a description, the plan shall include, at a minimum, the following items:

- (i) A site map indicating, at a minimum, the following:
  - (AA) Each drainage and discharge conveyance and outline of the drainage area of each storm water outfall.
  - (BB) Paved areas and buildings within the drainage area of each discharge point.
  - (CC) Each past or present area used for outdoor storage or disposal of significant materials.
  - (DD) Each existing structural control measure to reduce pollutants in storm water run-off.
  - (EE) Materials loading and access areas.
  - (FF) Each hazardous waste treatment, storage, or disposal facility, including each area not re-

- quired to have a RCRA permit which is used for accumulating hazardous waste as defined in 327 IAC 5-1-2 [327 IAC 5-1-2 was repealed filed Jan 14, 1997, 12:00 p.m.: 20 IR 1479.] under 40 CFR 262.34 as adopted in 329 IAC 3-14-3 [329 IAC 3 was repealed filed Jan 24, 1992, 2:00 p.m.: 15 IR 1002.].
- (GG) Each well where fluids from the facility are injected underground.
- (HH) Springs and wetlands.
- (II) Other surface water bodies.
- (JJ) Soil types.
- (KK) Existing and proposed underground storage tanks.
- (LL) Snow dumping sites, if any.
- (ii) An estimate of the area of impervious surfaces, including paved areas and building roofs, relative to the total area drained by each outfall.
- (iii) A topographic map, or other if a topographic map is unavailable, extending one-fourth (1/4) of a mile beyond the property boundaries of the facility, depicting the facility and each of its intake and discharge structures, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant in the map area. This item may be included in the site map required under item (i).
- (iv) A narrative description of the following:
- (AA) Significant materials that in the three (3) years prior to the submittal of the NOI letter have been treated, stored, or disposed on-site in a manner to allow exposure to storm water.
- (BB) Method of treatment, storage, or disposal.
- (CC) Past and present materials management practices employed to minimize contact of these materials with storm water run-off.
- (DD) Materials loading and access areas.
- (EE) The location and description of existing structural and nonstructural control measures to reduce pollutants in storm water run-off.
- (FF) A description of any treatment the storm water receives, including the ultimate disposal of any solid or fluid wastes other than by discharge.
- (v) A list of significant spills and leaks of toxic pollutants or hazardous substances as defined in 327 IAC 5-1-2 [327 IAC 5-1-2 was repealed filed Jan 14, 1997, 12:00 p.m.: 20 IR 1479.] that occurred at the facility within three (3) years prior to the submittal of the NOI letter. Such list shall be updated within ninety (90) days from when a significant spill or leak of toxic pollutants or hazardous substances occurs and shall include a description of the materials released, an estimate of

the volume of the release, the location of the release, and a description of any remediation or cleanup measures taken.

(vi) For each area of the plant that generates storm water discharges associated with industrial activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow, and an estimate of the types of pollutants which could be present in storm water discharges associated with industrial activity.

(vii) A summary of existing sampling data describing pollutants in storm water discharges.

(2) The facility shall be operated and maintained in such a manner that exposure of storm water to potential sources of significant pollutant material is minimized. To accomplish such an operation and maintenance program, the person shall develop management controls of storm water discharge/run-off appropriate for the facility and implement such controls. The storm water management controls shall include, at a minimum, the following components:

(A) A risk identification/assessment and material inventory which evaluates the potential for various areas of the plant to contribute pollutants to the storm water discharge by exposing the storm water to industrial activity. Such assessment and inventory shall consider factors such as the following:

(i) An inventory of the types of materials handled, the location of material handling activities, and types of material management activities.

(ii) Identification of the toxicity of chemicals utilized at the facility as well as the quantity of such chemicals used, produced, or discharged.

(iii) A history of significant leaks or spills of pollutants known to have occurred.

(B) A preventative maintenance program which includes routine inspection and maintenance of storm water management devices.

(C) A spill prevention and response program which identifies areas where potential spills can occur and their accompanying drainage points, and that minimizes the potential for spills to occur. The program shall include, at a minimum, procedures for the following:

(i) Proper spill response and clean-up.

(ii) Reporting a spill to the appropriate facility personnel and, if appropriate, local/state emergency response personnel.

(iii) Routine maintenance and inspection of spill response/cleanup materials and equipment.

(D) An exposure reduction assessment which identifies the potential to eliminate/reduce storm water exposure in areas identified above as having a risk of

exposing the storm water to significant pollutants and appropriate procedures to accomplish such elimination/reduction.

(E) A schedule for implementing procedures as identified under clause (D).

(F) Certify that storm water discharges from the site have been evaluated for the presence of nonstorm water.

(c) General requirements of a storm water pollution prevention plan shall include the following:

- (1) The plan shall be certified by a qualified professional.
- (2) The plan shall be retained on-site and be available for review by a representative of the commissioner upon request.

(3) A schedule shall be included with the plan which allows for compliance with the terms of the plan on or before three hundred sixty-five (365) days after submission of the NOI letter, or, in the case of new facilities, prior to initiation of operation at the facility. The commissioner may grant an extension of this time frame based on a request by the person showing reasonable cause.

(4) The person regulated under this rule shall report once per quarter its progress in developing and implementing the plan. Once the plan is completed and implemented, the reports may cease. The reports shall be sent to:

Indiana Department of Environmental Management  
 Permits Section  
 Office of Water Management  
 105 South Meridian Street  
 P.O. Box 6015  
 Indianapolis, Indiana 46206-6015

(5) The person regulated under this rule shall amend the plan whenever there is a change in design, construction, operation, or maintenance at the facility, which may have a significant effect on the potential for the discharge of pollutants to surface waters of the state, or upon written notice by the commissioner that the storm water pollution prevention plan proves to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity.

(d) Monitoring and reporting requirements shall be as follows:

(1) Each discharge outfall, or representative discharge outfall, composed entirely of storm water run-off, shall be monitored as follows:

Parameter	Units	Sample Type
Oil and grease	mg/l	grab
CBOD <sub>5</sub>	mg/l	grab and composite
COD	mg/l	grab and composite

TSS	mg/l	grab and composite
TKN	mg/l	grab and composite
T. phosphorous	mg/l	grab and composite
pH	s.u.	grab
Nitrate plus nitrite nitrogen	mg/l	grab and composite

(2) For those facilities subject to Federal Categorical Effluent Guidelines (40 CFR Subchapter N, in effect on February 12, 1992); Sara Title III facilities subject to report releases into the environment of chemicals which are classified as section 313 water priority chemicals used at the plant in the previous reporting year and which are reasonably expected to be in the discharge; or an individual NPDES permit for process discharge, those parameters required under these programs which are not listed in this subsection shall also be monitored and sampled by grab and composite, except cyanide, hexavalent chromium and volatile organic compounds, which shall be sampled by the grab sample method.

(3) Prior to implementation of the storm water pollution prevention plan, the person regulated under this rule shall sample and analyze the discharge from the outfall(s) regulated by this rule. During the second year of regulation under this rule, after implementation of the storm water pollution prevention plan, the person shall sample and analyze the discharge from the outfall(s) regulated under this rule for two (2) precipitation events. No further physical sampling is required unless the facility is notified to perform additional physical sampling by Indiana department of environmental management. During the third through the fifth year of regulation under this rule, visual inspections of each outfall or representative outfall as identified in the NOI letter shall be performed for two (2) storm events each year with results recorded and reported annually to the permits section. Visual inspections shall report the presence of turbidity, color, foam, solids, floatables, and an oil sheen.

(4) A grab sample shall consist of at least one hundred (100) milliliters collected during the first thirty (30) minutes, or as soon thereafter as practicable, of the discharge. The grab sample shall be analyzed separately from the composite sample. A composite sample shall consist of a flow or time-weighted sample, either by the time interval between each aliquot or by the volume of aliquot proportionate to the discharge flow at the time of sampling or the total discharge flow since collection of the previous aliquot. A composite sample shall be taken during a minimum of the first three (3) hours of a storm event.

(5) There shall be a minimum of three (3) months between reported sampling events.

(6) Samples taken in compliance with the monitoring requirements under subdivision (4) shall be taken at a point representative of the discharge but prior to entry into surface waters of the state of Indiana or a municipal separate storm sewer.

(7) Sampling type for discharges from a retention basin with a minimum twenty-four (24) hour detention capacity, or, for coal mines, ten (10) hour detention, shall be a grab sample for all parameters. Such a grab shall be taken within the first thirty (30) minutes of discharge from the pond after initiation of a storm event.

(8) All samples shall be collected from a discharge resulting from a measurable storm event at least seventy-two (72) hours from the previous measurable storm event and, where feasible, where the duration and total precipitation does not exceed fifty percent (50%) from the average or median precipitation event in the area, as determined by the nearest United States National Weather Service Information Center. Documentation of weather conditions that prevent sampling as described in this subsection must be provided to the commissioner.

(9) The analytical and sampling methods used shall conform to the current version of 40 CFR 136 as referenced in 327 IAC 5-2-13(c)(1).

(10) Samples and measurements taken as required under this subsection shall be representative of the volume and nature of the monitored discharge.

(e) Analysis shall be performed in accordance with 40 CFR 136, in effect on February 12, 1992, for quality assurance and quality control.

(f) Reporting requirements shall be as follows:

(1) All samples shall be reported as a value of concentration. Concentration is defined as the mass of any given material present in a unit volume of liquid. Unless otherwise indicated under this rule, concentration values shall be expressed in milligrams per liter.

(2) For each measurement or sample taken pursuant to the requirements of this rule, the facility shall record the following information:

(A) The exact place, date, and time of sampling.

(B) The person who performed the sampling or measurements.

(C) The dates the analyses were performed.

(D) The person who performed the analyses.

(E) The analytical techniques or methods used.

(F) The results of all required analyses and measurements.

(3) All records and information resulting from the monitoring activities required under this rule, including all records of analyses performed and calibration and maintenance of instrumentation and recording from continuous monitoring instrumentation, shall be

retained for a minimum of three (3) years. In cases where the original records are kept at another location, a copy of all such records shall be kept at the facility. The three (3) year period shall be extended:

(A) automatically during the course of any unresolved litigation regarding the discharge of pollutants by the facility or regarding promulgated effluent guidelines applicable to the facility; or

(B) as requested by the regional administrator or the Indiana department of environmental management.

(4) The person regulated under this rule shall submit an annual report to the Indiana department of environmental management containing results obtained during the previous year and shall be postmarked no later than the twenty-eighth day of January each year. The regional administrator may request the person to submit monitoring reports to the EPA if it is deemed necessary to assure compliance with the applicable general permit rule.

(5) Persons regulated under this rule who have a discharge regulated under this rule which enters a municipal separate storm sewer shall also submit a copy of the discharge monitoring report required under subsection (d) to the operator of the municipal system in accordance with the requirements under subsection (d).

(6) If the person regulated under this rule monitors any pollutant at the location designated in this section more frequently than required under this rule, using approved analytical methods as specified in this subsection, the results of such monitoring shall be reported as additional information in the annual report. Such increased frequency shall also be indicated in the report.

*(Water Pollution Control Board; 327 IAC 15-6-7; filed Aug 31, 1992, 5:00 p.m.: 16 IR 28; errata filed Sep 10, 1992, 12:00 p.m.: 16 IR 65; errata, 16 IR 898; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-6-8 Standard conditions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 8. In addition to the conditions set forth in this rule, the standard conditions for the NPDES general permit rule under 327 IAC 15-4 shall apply also to this rule. *(Water Pollution Control Board; 327 IAC 15-6-8; filed Aug 31, 1992, 5:00 p.m.: 16 IR 32; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-6-9 Inspection and enforcement**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 9. (a) The commissioner and/or designated representative may inspect any facility regulated under this rule at any time. The storm water pollution prevention plan and monitoring records must be available on-site for review by the commissioner.

(b) Any person violating any provision of this rule shall be subject to enforcement and penalty as set forth under 327 IAC 15-1-4. (*Water Pollution Control Board; 327 IAC 15-6-9; filed Aug 31, 1992, 5:00 p.m.: 16 IR 32; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **Rule 7. Facilities Engaged in Mining of Coal, Coal Processing, and Reclamation Activities**

327 IAC 15-7-1	Purpose
327 IAC 15-7-2	Definitions
327 IAC 15-7-3	Applicability
327 IAC 15-7-4	General permit rule boundary
327 IAC 15-7-5	NOI letter requirements under this rule
327 IAC 15-7-6	Deadline for submittal of NOI letter; additional information
327 IAC 15-7-7	General conditions
327 IAC 15-7-8	Standard conditions
327 IAC 15-7-9	Inspection and enforcement
327 IAC 15-7-10	Duration of coverage

#### **327 IAC 15-7-1 Purpose**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 1. The purpose of this rule is to regulate wastewater discharges from surface mining, underground mining, and reclamation projects which utilize sedimentation basin treatment for pit dewatering and surface run-off and to require best management practices for storm water run-off so that the public health, existing water uses, and aquatic biota are protected. (*Water Pollution Control Board; 327 IAC 15-7-1; filed May 25, 1994, 11:00 a.m.: 17 IR 2284; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 15-7-2 Definitions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 2. The following definitions apply throughout this rule:

- (1) "1-year, 2-year, and 10-year, 24-hour precipitation event" means the maximum 24-hour precipitation event with a probable recurrence interval of once in one (1), two (2), and ten (10) years, respectively, as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.", May 1961, or equivalent regional or rainfall probability information developed therefrom.
- (2) "4 × yearly sample frequency" means the perfor-

mance of the associated monitoring once any time during each of the four (4) annual quarters:

- (A) January-February-March;
- (B) April-May-June;
- (C) July-August-September; and
- (D) October-November-December.

(3) "Acid or ferruginous mine drainage" means mine drainage which, before any treatment, either has a pH of less than six (6.0) or a total iron concentration equal to or greater than ten (10) milligrams per liter.

(4) "Active mining area" means the area, on and beneath land, used or disturbed in activity related to the extraction, removal, or recovery of coal from its natural deposits. This term excludes coal preparation plants, coal preparation plant associated areas, and post mining areas.

(5) "Alkaline mine drainage" means mine drainage which, before any treatment, has a pH equal to or greater than six (6.0) and a total iron concentration of less than ten (10) milligrams per liter.

(6) "Bond release" means the time at which the appropriate regulatory authority returns a reclamation or performance bond based upon its determination that reclamation work (including, in the case of underground mines, mine sealing and abandonment procedures) has been satisfactorily completed.

(7) "Coal preparation plant" means a facility where coal is subjected to cleaning, concentrating, or other processing or preparation in order to separate coal from its impurities and thereafter is loaded for transit to a consuming facility.

(8) "Coal preparation plant associated areas" means the coal preparation plant yards, immediate access roads, coal refuse piles, and coal storage piles and facilities.

(9) "Coal refuse disposal pile" means any coal refuse deposited on the earth and intended as a permanent disposal or long term storage (greater than one hundred eighty (180) days) of such material but does not include coal refuse deposited within the active mining area or coal refuse that is never removed from the active mining area.

(10) "Concentration" means the mass of any given material present in a unit volume of liquid. Unless otherwise indicated in this rule, concentration values shall be expressed in milligrams per liter (mg/l).

(11) "Controlled surface mine discharge" means any surface mine drainage that is pumped or siphoned from the active mining area.

(12) "Dry weather base flow" means the normal base flow coming from an area or treatment facility which is not immediately affected by run-off caused by rainfall. This flow is a result of ground water interference or a build-up of rainwater over a long period of

time. Alternate limitations apply when this dry weather flow increases due to a precipitation event and continues until the flow again returns to the dry weather rate.

(13) "Mine drainage" means any drainage, and any water pumped or siphoned, from an active mining area or a post mining area.

(14) "ml/l" means milliliters per liter.

(15) "Post mining area" means either of the following:

(A) A reclamation area.

(B) The underground workings of an underground coal mine after the extraction, removal, or recovery of coal from its natural deposit has ceased and prior to bond release.

(16) "Precipitation event" means a rainfall, snow melt, or ice melt which causes a discharge or an increase in the volume of a discharge.

(17) "Reclamation area" means the surface area of a coal mine which has been returned to required contour and on which revegetation (specifically, seeding or planting) work has commenced.

(18) "Settleable solids" means that matter measured by the volumetric method specified in 40 CFR 434.64, which is: Fill an Imhoff cone to the one (1) liter mark with a thoroughly mixed sample. Allow to settle undisturbed for forty-five (45) minutes. Gently stir along the inside surface of the cone with a stirring rod. Allow to settle undisturbed for fifteen (15) minutes longer. Record the volume of settled material in the cone as milliliters per liter (ml/l). Where a separation of settleable and floating materials occurs, do not include the floating material in the reading. The method detection limit for measuring settleable solids shall be four-tenths (0.4) ml/l.

(19) "TSS" or "total suspended solids" means the mass of suspended matter in wastewater retained on a standard glass fiber filter after filtration of a well-mixed sample after drying for one (1) hour at one hundred three degrees Celsius (103°C).

*(Water Pollution Control Board; 327 IAC 15-7-2; filed May 25, 1994, 11:00 a.m.: 17 IR 2284; errata filed Jul 11, 1994, 3:00 p.m.: 17 IR 2657; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-7-3 Applicability**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 3. This rule applies to all persons who:

- (1) meet the NPDES general permit rule applicability requirements under 327 IAC 15-2-3; or
- (2) have an existing point source discharge of wastewater controlled by a valid individual NPDES

permit.

*(Water Pollution Control Board; 327 IAC 15-7-3; filed May 25, 1994, 11:00 a.m.: 17 IR 2285; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1477; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-7-4 General permit rule boundary**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 4. Facilities existing within the boundaries of Indiana affected by this rule are regulated under this rule. *(Water Pollution Control Board; 327 IAC 15-7-4; filed May 25, 1994, 11:00 a.m.: 17 IR 2285; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-7-5 NOI letter requirements under this rule**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 5. (a) In addition to the NOI letter requirements contained in 327 IAC 15-3, a person regulated under this rule must submit with the NOI letter requirements under this rule the following information:

(1) The discharge location of each outfall, including each outfall regulated under section 7(b)(6) of this rule and its associated receiving stream.

(2) An identifying outfall number. The numbering shall start at 001 for the first outfall, 002 for the second outfall, and continue in that manner until all outfalls are numbered. The sequential number assigned to any outfall identified under section 7(b)(6) of this rule shall be preceded by an "S".

(3) For each numbered outfall, identify the mine drainage status regulated under section 7(a)(1) through 7(a)(4) of this rule. For numbered outfalls regulated under section 7(b)(6) of this rule, identify the outfall as discharging storm water.

(4) The dry weather base flow value for each numbered outfall regulated under section 7(a)(1) through 7(a)(4) of this rule.

(5) A topographical map identifying the location of the coal mining operation, the receiving streams, and the location of each numbered outfall.

(b) The NOI letter must also include proof of publication of the following statement in a newspaper of largest circulation in the area of the discharge:

"(Your facility name, address, address of the location of the discharging facility, and the stream(s) receiving the discharge(s)) is submitting a Notice of Intent letter to notify the Indiana Department of Environmental Management of our intent to comply with the require-

ments under 327 IAC 15-7 to discharge wastewater associated with the mining of coal, coal processing, and/or reclamation activities. Any person aggrieved by this action may appeal in writing to the Technical Secretary of the Water Pollution Control Board for an adjudicatory hearing on the question of whether this facility should operate under this NPDES general permit rule. An appeal must be postmarked no later than fifteen (15) days from the date of this public notice. Such a written request for an adjudicatory hearing must:

- (A) state the name and address of the person making the request;
- (B) identify the interest of the person making the request;
- (C) identify any persons represented by the person making the request;
- (D) state with particularity the reasons for the request;
- (E) state with particularity the issues proposed for consideration at the hearing; and
- (F) state with particularity the reasons why the NPDES general permit rule should not be available to the discharger identified in this notice.

Any such request shall be mailed or delivered to:

Technical Secretary  
Water Pollution Control Board  
P.O. Box 6167  
Indianapolis, Indiana 46206-6167".

(c) Following submittal of a NOI letter to IDEM and publication in the newspaper by the person requesting coverage under subsection (b), IDEM shall do the following:

- (1) Review the NOI for applicability pursuant to section 3 of this rule and for compliance with the requirements of subsection (a).
- (2) List this facility, the NPDES general permit tracking number, and the information contained in this notice in a monthly publication to be distributed by IDEM to all persons who have asked to receive NPDES general permit rule notification. This monthly publication shall be issued by IDEM on the fifteenth day of every month and shall identify all facilities which met both the NOI and newspaper publication requirements in the preceding month. Requests to be placed on the NPDES general permit rule notification list shall be mailed or delivered to the address at 327 IAC 15-3-1. IDEM's monthly publication will also contain the following instructions:

"Any person aggrieved by this action may appeal in writing to the Technical Secretary of the Water Pollution Control Board for an adjudicatory hearing on the question of whether this facility should

operate under this NPDES general permit rule. An appeal must be postmarked no later than fifteen (15) days from the publication date of this public notice. Such a written request for an adjudicatory hearing must:

- (A) state the name and address of the person making the request;
- (B) identify the interest of the person making the request;
- (C) identify any persons represented by the person making the request;
- (D) state with particularity the reasons for the request;
- (E) state with particularity the issues proposed for consideration at the hearing; and
- (F) identify the NPDES general permit rule terms and conditions which, in the judgment of the person making the request, would be appropriate to satisfy the requirements of the law governing this NPDES general permit rule. If any person filing such objections desires any part of this NPDES general permit rule to be stayed pending the outcome of the appeal, a specific request for such must be included in the request identifying those parts of the rule to be stayed.

Any such request shall be mailed or delivered to:

Technical Secretary  
Water Pollution Control Board  
P.O. Box 6167  
Indianapolis, Indiana 46206-6167".

(d) An amended NOI letter containing the information required in 327 IAC 15-3 and subsection (a) shall be submitted for active or post mining areas and coal preparation plants and associated areas prior to initiating one (1) of the following events:

- (1) A point source discharge is added or deleted.
- (2) A change is made in mine drainage status to a point source discharge.
- (3) The point source discharge location is changed to a different receiving stream.
- (e) A copy of the NOI letter and the amended NOI letter required under this section shall also be sent to the following address:

Indiana Department of Natural Resources  
Division of Reclamation  
R.R. #2, Box 129  
P.O. Box 147  
Jasonville, Indiana 47438-0147

*(Water Pollution Control Board; 327 IAC 15-7-5; filed May 25, 1994, 11:00 a.m.: 17 IR 2285; errata filed Jul 11, 1994, 3:00 p.m.: 17 IR 2657; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 15-7-6 Deadline for submittal of NOI letter; additional information**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 6. (a) For any person operating under an existing individual NPDES permit, that regulates a wastewater discharge affected by this NPDES general permit rule, the information required under 327 IAC 15-3 shall be submitted to the commissioner any time between the effective date of the existing individual NPDES permit and one hundred eighty (180) days prior to the expiration date of the existing individual NPDES permit, unless the commissioner determines that a later date is acceptable. For any person operating under an individual NPDES permit that regulates a wastewater discharge affected by this NPDES general permit rule and that has expired and has been administratively extended, the information required under 327 IAC 15-3 shall be submitted to the commissioner within ninety (90) days of the effective date of this NPDES general permit rule, unless the commissioner determines that a later date is acceptable.

(b) For a person proposing a new discharge, the information required under 327 IAC 15-3 shall be submitted to the commissioner fifteen (15) days before the date on which the discharge is to commence as allowed in 327 IAC 15-3-3. (*Water Pollution Control Board; 327 IAC 15-7-6; filed May 25, 1994, 11:00 a.m.: 17 IR 2287; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 15-7-7 General conditions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 7. (a) A person regulated under this rule is authorized to discharge through the outfalls identified in the NOI letter in accordance with this rule. Such discharges shall be limited and monitored as follows:

(1) Discharges through outfalls identified as active mining areas, coal preparation plants, and/or coal preparation plant associated areas designated as new source undetermined mine drainage status shall be limited and monitored as follows:

Parameter	Daily Minimum	Daily Average	Daily Maximum	Units	Measurement	
					Frequency	Sample Type
Flow	–	Report	Report	MGD	2XMonthly	Instantaneous
TSS	–	35	70	mg/l	2XMonthly	Grab
pH	6.0	–	9.0	s.u.	2XMonthly	Grab
Total iron	–	3.0	6.0	mg/l	2XMonthly	Grab
Influent pH	–	Report	Report	Std.	Monthly	Grab
Influent total iron	–	Report	Report	mg/l	Monthly	Grab

(2) Discharges through outfalls identified as active mining areas, coal preparation plants, and/or coal preparation plant associated areas designated as new

source alkaline mine drainage status shall be limited and monitored as follows:

Parameter	Daily Minimum	Daily Average	Daily Maximum	Units	Measurement	
					Frequency	Sample Type
Flow	–	Report	Report	MGD	2XMonthly	Instantaneous
TSS	–	35	70	mg/l	2XMonthly	Grab
pH	6.0	–	9.0	s.u.	2XMonthly	Grab
Total iron	–	3.0	6.0	mg/l	2XMonthly	Grab

(3) Discharges through outfalls identified as active mining areas, coal preparation plants, and/or coal preparation plant associated areas designated as new

source acid mine drainage status shall be limited and monitored as follows:

Parameter	Daily Minimum	Daily Average	Daily Maximum	Units	Measurement	
					Frequency	Sample Type
Flow	–	Report	Report	MGD	Weekly	Instantaneous
TSS	–	35	70	mg/l	Weekly	Grab
pH	6.0	–	9.0	s.u.	Weekly	Grab
Total iron	–	3.0	6.0	mg/l	Weekly	Grab
Total manganese	–	2.0	4.0	mg/l	Weekly	Grab

Total aluminum	–	Report	Report	mg/l	Monthly	Grab
Total copper	–	Report	Report	mg/l	Monthly	Grab
Total zinc	–	Report	Report	mg/l	Monthly	Grab
Total nickel	–	Report	Report	mg/l	Monthly	Grab

(4) Discharges through outfalls identified as post mining areas shall be limited and monitored as follows:

<u>Parameter</u>	<u>Daily Minimum</u>	<u>Daily Average</u>	<u>Daily Maximum</u>	<u>Units</u>	<u>Measurement</u>	
					<u>Frequency</u>	<u>Sample Type</u>
Flow	–	–	–	–	4XYearly	Instantaneous
Settleable solids	–	Report	0.5	ml/l	4XYearly	Grab
pH	6.0	–	9.0	s.u.	Once every reporting period	Grab

(b) A person regulated under this rule shall comply with the following additional discharge requirements:

(1) The pH of the water contained in any water pollution treatment/control facility cannot be adjusted by the use of anhydrous ammonia. The only approved water treatment additives for pH adjustment are:

- (A) sodium hydroxide;
- (B) hydrated lime;
- (C) calcined (unslaked or quick) lime;
- (D) soda ash;
- (E) lime;
- (F) sodium bicarbonate; or
- (G) other water treatment additive approved by the Indiana department of environmental management.

(2) The discharge shall not cause excessive foam in the receiving waters.

(3) The discharge shall be essentially free of floating and settleable solids.

(4) The discharge shall not contain oil or other substances in amounts sufficient to create a visible film or sheen on the receiving waters.

(5) The discharge shall be free of substances that are in amounts sufficient to be unsightly or deleterious or which produce color, odor, or other conditions in such a degree as to create a nuisance.

(6) For discharges of storm water run-off composed entirely of flows from conveyances used for collecting and conveying precipitation run-off which are contaminated by contact with overburden, coal product, coal byproduct, or coal waste located on the site and do not otherwise report to a NPDES discharge point regulated under this rule, the permittee shall use best management practices including, but not limited to, secondary sedimentation control structures such as rip rap, straw dikes, check dams, mulch, dugouts, or other measures that reduce overload flow velocity, reduce run-off volume, or trap sediment to control run-off from such areas. Compliance with this subdivision obviates the need to comply with 327 IAC 15-6.

(c) A person regulated under subsection (a)(1) through

(a)(3) may choose to apply the following alternate effluent limitations to a discharge when the discharge flow rate exceeds the dry weather base flow based on the precipitation events identified as follows:

(1) If a precipitation event is less than or equal to the 10-year, 24-hour storm event, the following limitations may apply instead of the limitations listed in subsection (a):

(A) pH is limited to the range of six (6.0) to nine (9.0).

(B) Settleable solids are limited to a maximum concentration of five-tenths (0.5) ml/l.

(2) If a precipitation event is greater than the 10-year, 24-hour storm event, only pH is limited to the range of six (6.0) to nine (9.0).

These alternate limits are not applicable to discharges which occur during dry weather base flow.

(d) A person regulated under this rule shall comply with the following sampling requirements:

(1) When possible, grab samples shall be taken two (2) times per month with one (1) sample representative of the dry weather base flow and one (1) sample representative of a precipitation event. In the event that only one (1) discharge event or no discharge occurred during a monthly reporting period, the monthly discharge monitoring report shall so state.

(2) Samples taken in compliance with the monitoring requirements in this section shall be taken at a point representative of the discharge but prior to entry into waters of Indiana.

(3) The analytical and sampling methods used shall conform to the current version of 40 CFR 136 as referenced in 327 IAC 5-2-13(d)(1).

(4) Samples and measurements taken as required in this section shall be representative of the volume and nature of the monitored discharge.

(e) A person regulated under this rule shall comply with the following reporting requirements:

(1) Under subsection (c), for reporting purposes, a person regulated under this rule shall report on the

monthly discharge monitoring report all analytical results and identify on an attachment to this report the analytical results that were reported under subsection (c) and state the duration and volume of the precipitation event. Failure to submit the necessary information with the monthly discharge monitoring report will disqualify the discharge from the alternate effluent limitations and may lead to a violation of this rule.

(2) For areas designated as new source undetermined mine drainage status, influent pH and influent total iron are to be monitored for a six (6) month period to determine whether they are present in significant quantities. At the end of this sampling period, a person regulated under this rule may request, in writing, to the permits section at the address listed in 327 IAC 15-3-1, a review of these requirements. Upon review and approval by the Indiana department of environmental management, monitoring for influent pH and influent iron may cease, if appropriate, without public notice or comment.

(3) For areas designated as new source acid mine drainage status, total aluminum, total copper, total zinc, and total nickel are to be monitored for one (1) year to determine whether they are present in significant quantities. At the end of this sampling period, a person regulated under this rule may request, in writing, to the permits section at the address listed in 327 IAC 15-3-1, a review of these requirements. Upon review and approval by the Indiana department of environmental management, monitoring for total aluminum, total copper, total zinc, and total nickel may cease, if appropriate, without public notice or comment.

(4) Monthly discharge monitoring reports shall be submitted to the data management section at the address listed in 327 IAC 15-3-1, containing results obtained during the previous month and shall be postmarked no later than the twenty-eighth day of the month following each completed monitoring period. During a month in which no discharge occurs, the person regulated under this rule shall submit the report stating that no discharge occurred.

(5) For each measurement or sample taken pursuant to the requirements of this rule, the facility shall record the following information:

- (A) The exact place, date, and time of sampling.
  - (B) The person(s) who performed the sampling or measurements.
  - (C) The dates the analyses were performed.
  - (D) The person(s) who performed the analyses.
  - (E) The analytical techniques or methods used.
  - (F) The results of all required analyses.
- (6) Monitoring of any pollutant at the location(s)

identified in the NOI letter more frequently than required under this rule, using approved analytical methods, the results of such monitoring shall be included in the calculation and reporting of the values required in monthly discharge monitoring report. Such increased frequency shall also be indicated in this report.

(7) All records and information resulting from the monitoring activities required under this rule, including all records of analyses performed and calibration and maintenance of instrumentation, shall be retained for a minimum of three (3) years. When the original records are kept at another location, a copy of all such records shall be kept at the facility. The three (3) year period shall be extended:

- (A) automatically during the course of any unresolved litigation regarding the discharge of pollutants by the facility or regarding promulgated effluent guidelines applicable to the facility; or
- (B) when requested by the regional administrator or the Indiana department of environmental management.

*(Water Pollution Control Board; 327 IAC 15-7-7; filed May 25, 1994, 11:00 a.m.: 17 IR 2287; errata filed Jul 11, 1994, 3:00 p.m.: 17 IR 2657; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-7-8 Standard conditions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 8. In addition to the conditions set forth in this rule, the standard conditions for the NPDES general permit rule under 327 IAC 15-4 shall apply also to this rule. *(Water Pollution Control Board; 327 IAC 15-7-8; filed May 25, 1994, 11:00 a.m.: 17 IR 2289; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-7-9 Inspection and enforcement**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 9. (a) In accordance with 327 IAC 5-1-3(c), the commissioner and/or designated representative may inspect any facility regulated under this rule at any time.

(b) Any person violating any provision of this rule shall be subject to enforcement and penalties as set forth under 327 IAC 15-1-4. *(Water Pollution Control Board; 327 IAC 15-7-9; filed May 25, 1994, 11:00 a.m.: 17 IR 2289; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-7-10 Duration of coverage**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 10. Coverage under this rule is granted by the commissioner for a period of five (5) years from the date coverage commences. To obtain renewal of coverage under this general permit rule, the information required under 327 IAC 15-3 shall be submitted to the commissioner within ninety (90) days of the termination of coverage under this NPDES general permit rule, unless the commissioner determines that a later date is acceptable. (*Water Pollution Control Board; 327 IAC 15-7-10; filed May 25, 1994, 11:00 a.m.: 17 IR 2289; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **Rule 8. Facilities Discharging Noncontact Cooling Water**

327 IAC 15-8-1	Purpose
327 IAC 15-8-2	Definitions
327 IAC 15-8-3	Applicability
327 IAC 15-8-4	General permit rule boundary
327 IAC 15-8-5	NOI letter requirements under this rule
327 IAC 15-8-6	Deadline for submittal of NOI letter; additional information
327 IAC 15-8-7	General conditions
327 IAC 15-8-8	Standard conditions
327 IAC 15-8-9	Inspection and enforcement
327 IAC 15-8-10	Duration of coverage

#### **327 IAC 15-8-1 Purpose**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 1. The purpose of this rule is to regulate the discharge of once through noncontact cooling water which is free from wastewater generated by manufacturing processes and other types of wastewater discharges so that the public health, existing water uses, and aquatic biota are protected. (*Water Pollution Control Board; 327 IAC 15-8-1; filed May 25, 1994, 11:00 a.m.: 17 IR 2289; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 15-8-2 Definitions**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 2. In addition to the definitions contained in IC 13-11-2, 327 IAC 5, and 327 IAC 15-1-2, the following definitions apply throughout this rule:

- (1) "Concentration" means the mass of any given material present in a unit volume of liquid. Unless otherwise indicated in this rule, concentration values shall be expressed in milligrams per liter (mg/l).
- (2) "Once through noncontact cooling water" means cooling water that is:
  - (A) used for the sole purpose of removing unwanted heat from a process;

(B) only makes one (1) pass through a unit that exchanges heat between the process and the cooling water (generally a heat exchanger); and

(C) does not come into contact with any raw material or manufactured product.

In the context of this rule, the term excludes discharges from steam electric power generation facilities defined under 40 CFR 423.

(3) "Settleable solids" means that matter measured by the volumetric method specified in 40 CFR 434.64, which is as follows:

(A) Fill an Imhoff cone to the one (1) liter mark with a thoroughly mixed sample.

(B) Allow to settle undisturbed for forty-five (45) minutes.

(C) Gently stir along the inside surface of the cone with a stirring rod.

(D) Allow to settle undisturbed for fifteen (15) minutes longer.

(E) Record the volume of settled material in the cone as milliliters per liter (ml/l). Where a separation of settleable and floating materials occurs, do not include the floating material in the reading.

The method detection limit for measuring settleable solids shall be four-tenths (0.4) ml/l.

(*Water Pollution Control Board; 327 IAC 15-8-2; filed May 25, 1994, 11:00 a.m.: 17 IR 2289; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1477; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 15-8-3 Applicability**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 3. This rule applies to all persons who:

(1) meet the NPDES general permit rule applicability requirements under 327 IAC 15-2-3 or have an existing point source discharge of wastewater controlled by a valid NPDES permit; and

(2) is not a steam electric power generating station as defined under 40 CFR 423.

(*Water Pollution Control Board; 327 IAC 15-8-3; filed May 25, 1994, 11:00 a.m.: 17 IR 2290; errata filed Jul 11, 1994, 3:00 p.m.: 17 IR 2657; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1477; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 15-8-4 General permit rule boundary**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 4. Facilities existing within the boundaries of Indiana affected by this rule are regulated under this rule.

*(Water Pollution Control Board; 327 IAC 15-8-4; filed May 25, 1994, 11:00 a.m.: 17 IR 2290; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 15-8-5 NOI letter requirements under this rule**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 5. (a) In addition to the NOI letter requirements under 327 IAC 15-3, a person regulated under this rule must identify in the NOI letter each point source discharge of noncontact cooling water. This identification of point source discharge shall include the following:

- (1) The discharge location of each outfall and its associated receiving stream.
- (2) The type of wastewater discharged through each outfall.
- (3) An identifying outfall number. The numbering shall start at 001 for the first outfall, 002 for the second outfall, and continue in that manner until all outfalls are numbered.
- (4) A listing of all water treatment additives approved for use by the Indiana department of environmental management and in use at the time of this submittal.

(b) The NOI letter must also contain proof of publication of the following statement in a newspaper of largest circulation in the area of the discharge:

"(Your facility name, address, address of the location of the discharging facility, and the stream(s) receiving the discharge(s)) is submitting a Notice of Intent letter to notify the Indiana Department of Environmental Management of our intent to comply with the requirements under 327 IAC 15-8 to discharge wastewater associated with noncontact cooling water. Any person aggrieved by this action may appeal in writing to the Technical Secretary of the Water Pollution Control Board for an adjudicatory hearing on the question of whether this facility should operate under this NPDES general permit rule. An appeal must be postmarked no later than fifteen (15) days from the date of this public notice. Such a written request for an adjudicatory hearing must:

- (A) state the name and address of the person making the request;
- (B) identify the interest of the person making the request;
- (C) identify any persons represented by the person making the request;
- (D) state with particularity the reasons for the request;
- (E) state with particularity the issues proposed for consideration at the hearing; and

(F) state with particularity the reasons why the NPDES general permit rule should not be available to the discharger identified in this notice.

Any such request shall be mailed or delivered to:

Technical Secretary  
 Water Pollution Control Board  
 P.O. Box 6167  
 Indianapolis, Indiana 46206-6167".

(c) Following submittal of a NOI letter to IDEM and publication in the newspaper by the person requesting coverage under subsection (b), IDEM shall do the following:

- (1) Review the NOI for applicability pursuant to section 3 of this rule and for compliance with the requirements of subsection (a).
- (2) List this facility, the NPDES general permit tracking number, and the information contained in this notice in a monthly publication to be distributed by IDEM to all persons who have asked to receive NPDES general permit rule notification. This monthly publication shall be issued by IDEM on the fifteenth day of every month and shall identify all facilities which met both the NOI and newspaper publication requirements in the preceding month.

Requests to be placed on the NPDES general permit rule notification list shall be mailed or delivered to the address at 327 IAC 15-3-1.

(d) IDEM's monthly publication will also contain the following instructions:

"Any person aggrieved by this action may appeal in writing to the Technical Secretary of the Water Pollution Control Board for an adjudicatory hearing on the question of whether this facility should operate under this NPDES general permit rule. An appeal must be postmarked no later than fifteen (15) days from the publication date of this public notice. Such a written request for an adjudicatory hearing must:

- (A) state the name and address of the person making the request;
- (B) identify the interest of the person making the request;
- (C) identify any persons represented by the person making the request;
- (D) state with particularity the reasons for the request;
- (E) state with particularity the issues proposed for consideration at the hearing; and
- (F) identify the NPDES general permit rule terms and conditions which, in the judgment of the person making the request, would be appropriate to satisfy the requirements of the law governing this NPDES general permit rule. If any person filing such objections desires any part of this NPDES general permit

rule to be stayed pending the outcome of the appeal, a specific request for such must be included in the request, identifying those parts of the rule to be stayed.

Any such request shall be mailed or delivered to:

Technical Secretary  
 Water Pollution Control Board  
 P.O. Box 6167  
 Indianapolis, Indiana 46206-6167".

*(Water Pollution Control Board; 327 IAC 15-8-5; filed May 25, 1994, 11:00 a.m.: 17 IR 2290; errata filed Jul 11, 1994, 3:00 p.m.: 17 IR 2657; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 15-8-6 Deadline for submittal of NOI letter; additional information**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 6. (a) For any person operating under an existing individual NPDES permit, that regulates a wastewater discharge affected by this NPDES general permit rule, the information required under 327 IAC 15-3 shall be submitted to the commissioner any time between the effective date of the existing individual NPDES permit and one hundred eighty (180) days prior to the expiration date of the existing individual NPDES permit, unless the

commissioner determines that a later date is acceptable. For any person operating under an individual NPDES permit that regulates a wastewater discharge affected by this NPDES general permit rule and that has expired and has been administratively extended, the information required under 327 IAC 15-3 shall be submitted to the commissioner within ninety (90) days of the effective date of this NPDES general permit rule, unless the commissioner determines that a later date is acceptable.

(b) For a person proposing a new discharge, the information required under 327 IAC 15-3 shall be submitted to the commissioner fifteen (15) days before the date on which the discharge is to commence as allowed in 327 IAC 15-3-3. *(Water Pollution Control Board; 327 IAC 15-8-6; filed May 25, 1994, 11:00 a.m.: 17 IR 2291; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 15-8-7 General conditions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 7. (a) A person regulated under this rule is authorized to discharge noncontact cooling water through the outfalls identified in the NOI letter in accordance with this rule. Such discharge shall be limited and monitored as follows:

Parameter	Daily Minimum	Daily Maximum	Monthly Average	Units	Measurement	Sample Type
					Frequency	
Flow	—	—	—	—	2XMonthly	Instantaneous
Oil and grease	—	Report	Report	mg/l	2XMonthly	Grab
Temperature	—	Report	Report	°F	2XMonthly	Grab
pH	6.0	9.0	—	s.u.	2XMonthly	Grab

(b) A person regulated under this rule shall comply with the following additional discharge requirements:

- (1) If oil and grease is measured in the effluent in detectable quantities, the source of such discharge is to be investigated and eliminated and the findings submitted to the permits section at the address listed in 327 IAC 15-3-1.

- (2) The effluent temperature or mixed receiving stream temperature (when there is receiving stream flow) shall not exceed the maximum limits in the following table more than one percent (1%) of the hours in a twelve (12) month period ending with any month:

	January	February	March	April	May	June
Maximum Temperature (°F)	50	50	60	70	80	90
	July	August	September	October	November	December
	90	90	90	78	70	57

At no time shall the water temperature exceed the maximum limits in the table by more than three degrees Fahrenheit (3°F).

- (3) The discharge shall not cause excessive foam in the receiving waters.
- (4) The discharge shall be essentially free of floating

and settleable solids.

- (5) The discharge shall not contain oil or other substances in amounts sufficient to create a visible film or sheen on the receiving waters.

(c) A person regulated under this rule shall comply with the following sampling requirements:

(1) Samples taken in compliance with the monitoring requirements in this section shall be taken at a point representative of the discharge but prior to entry into waters of Indiana.

(2) The analytical and sampling methods used shall conform to the current version of 40 CFR 136 as referenced in 327 IAC 5-2-13(d)(1).

(3) Samples and measurements taken as required in this section shall be representative of the volume and nature of the monitored discharge.

(d) A person regulated under this rule shall comply with the following reporting requirements:

(1) Monthly discharge monitoring reports shall be submitted to the data management section at the address listed in 327 IAC 15-3-1, containing results obtained during the previous month and shall be postmarked no later than the twenty-eighth day of the month following each completed monitoring period. During a month in which no discharge occurs, the person regulated under this rule shall submit the report stating that no discharge occurred.

(2) For each measurement or sample taken pursuant to the requirements of this rule, the facility shall record the following information:

- (A) The exact place, date, and time of sampling.
- (B) The person(s) who performed the sampling or measurements.
- (C) The dates the analyses were performed.
- (D) The person(s) who performed the analyses.
- (E) The analytical techniques or methods used.
- (F) The results of all required analyses and measurements.

(3) Monitoring of any pollutant at the location(s) identified in the NOI letter more frequently than required under this rule, using approved analytical methods, the results of such monitoring shall be reported as additional information on a monthly discharge monitoring report. Such increased frequency shall also be indicated.

(4) All records and information resulting from the monitoring activities required under this rule, including all records of analyses performed and calibration and maintenance of instrumentation, shall be retained for a minimum of three (3) years. When the original records are kept at another location, a copy of all such records shall be kept at the facility. The three (3) year period shall be extended:

- (A) automatically during the course of any unresolved litigation regarding the discharge of pollutants by the facility or regarding promulgated effluent guidelines applicable to the facility; or
- (B) when requested by the regional administrator or the Indiana department of environmental manage-

ment.

(5) Prior approval must be obtained from the Indiana department of environmental management before using any water treatment additive that was not reported in the NOI letter under section 5(a)(4) of this rule. The request for approval shall be submitted, as required in 327 IAC 15-4-3, to the permits section at the address listed in 327 IAC 15-3-1. The request must contain all acute and chronic toxicity data available concerning the additives.

*(Water Pollution Control Board; 327 IAC 15-8-7; filed May 25, 1994, 11:00 a.m.: 17 IR 2291; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-8-8 Standard conditions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 8. In addition to the conditions set forth in this rule, the standard conditions for the NPDES general permit rule under 327 IAC 15-4 shall apply also to this rule. *(Water Pollution Control Board; 327 IAC 15-8-8; filed May 25, 1994, 11:00 a.m.: 17 IR 2292; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-8-9 Inspection and enforcement**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 9. (a) The commissioner and/or designated representative may inspect any facility regulated under this rule at any time.

(b) Any person violating any provision of this rule shall be subject to enforcement and penalty as set forth under 327 IAC 15-1-4. *(Water Pollution Control Board; 327 IAC 15-8-9; filed May 25, 1994, 11:00 a.m.: 17 IR 2292; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-8-10 Duration of coverage**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 10. Coverage under this rule is granted by the commissioner for a period of five (5) years from the date coverage commences. To obtain renewal of coverage under this general permit rule, the information required under 327 IAC 15-3 shall be submitted to the commissioner within ninety (90) days of the termination of coverage under this NPDES general permit rule, unless the commissioner determines that a later date is acceptable. *(Water Pollution Control Board; 327 IAC 15-8-10; filed May 25, 1994, 11:00 a.m.: 17 IR 2292; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 9. Wastewater Discharge Associated with Petroleum Products Terminals**

327 IAC 15-9-1	Purpose
327 IAC 15-9-2	Definitions
327 IAC 15-9-3	Applicability
327 IAC 15-9-4	General permit rule boundary
327 IAC 15-9-5	Notice of intent letter requirements under this rule
327 IAC 15-9-6	Deadline for submittal of NOI letter; additional information
327 IAC 15-9-7	General conditions
327 IAC 15-9-8	Standard conditions
327 IAC 15-9-9	Inspection and enforcement
327 IAC 15-9-10	Duration of coverage

#### **327 IAC 15-9-1 Purpose**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 1. The purpose of this rule is to establish discharge requirements for point source discharges for wastewater associated petroleum products terminals so that the public health, existing water uses, and aquatic biota are protected. (*Water Pollution Control Board; 327 IAC 15-9-1; filed May 25, 1994, 11:00 a.m.: 17 IR 2292; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 15-9-2 Definitions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3-1.5; IC 13-7-1

Sec. 2. In addition to the definitions contained in IC 13-7-1 and IC 13-1-3-1.5 and in 327 IAC 5 and 327 IAC 15-1-2, the following definitions apply throughout this rule:

- (1) "Concentration" means the weight of any given material present in a unit volume of liquid. Unless otherwise indicated in this rule, concentration values shall be expressed in milligrams per liter (mg/l).
- (2) "Daily maximum concentration" means the daily determination of concentration for any calendar day.
- (3) "Monthly average concentration" means the arithmetic average (proportional to flow) of all daily determinations of concentration made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily determination of concentration shall be the arithmetic average (weighted by flow value) of all the samples collected during the calendar day.
- (4) "Petroleum products terminals" means an area where petroleum products are supplied by pipeline or barge; where petroleum products are stored in above-ground tanks; where petroleum products are transferred to trucks for transport to other locations; or

where petroleum products are stored in aboveground tanks and are transferred to trucks for transport to other locations.

(5) "Wastewater discharge associated with petroleum products terminal" means the discharge from any conveyance, used for collecting and conveying wastewater which is directly related to the storage area of the petroleum products terminal. This includes storm water run-off, tank bottom water, and water used for hydrostatically testing the storage tanks.

(*Water Pollution Control Board; 327 IAC 15-9-2; filed May 25, 1994, 11:00 a.m.: 17 IR 2293; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 15-9-3 Applicability**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 3. This rule applies to all persons who:

- (1) meet the NPDES general permit rule applicability requirements under 327 IAC 15-2-3; or
- (2) have an existing point source discharge of treated wastewater controlled by a valid individual NPDES permit.

(*Water Pollution Control Board; 327 IAC 15-9-3; filed May 25, 1994, 11:00 a.m.: 17 IR 2293; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1478; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 15-9-4 General permit rule boundary**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 4. Facilities existing within the boundaries of Indiana affected by this rule are regulated under this rule. (*Water Pollution Control Board; 327 IAC 15-9-4; filed May 25, 1994, 11:00 a.m.: 17 IR 2293; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 15-9-5 Notice of intent letter requirements under this rule**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 5. (a) In addition to the NOI letter requirements contained in 327 IAC 15-3, a person regulated under this rule must identify in the NOI letter each point source discharge of storm water run-off, tank bottom water, and hydrostatic test water. This identification of point source discharge shall include the following:

- (1) The discharge location of each outfall and its associated receiving stream.
- (2) The type of wastewater discharged through each

outfall.

(3) An identifying outfall number. The numbering shall start at 001 for the first outfall, 002 for the second outfall, and continue in that manner until all outfalls are numbered.

(b) The NOI letter must also include proof of publication of the following statement in a newspaper of largest circulation in the area of the discharge:

"(Your facility name, address, address of the location of the discharging facility, and the stream(s) receiving the discharge(s)) is submitting a Notice of Intent letter to notify the Indiana Department of Environmental Management of our intent to comply with the requirements under 327 IAC 15-9 to discharge wastewater associated with petroleum products terminals. Any person aggrieved by this action may appeal in writing to the Technical Secretary of the Water Pollution Control Board for an adjudicatory hearing on the question of whether this facility should operate under this NPDES general permit rule. An appeal must be postmarked no later than fifteen (15) days from the date of this public notice. Such a written request for an adjudicatory hearing must:

- (A) state the name and address of the person making the request;
- (B) identify the interest of the person making the request;
- (C) identify any persons represented by the person making the request;
- (D) state with particularity the reasons for the request;
- (E) state with particularity the issues proposed for consideration at the hearing; and
- (F) state with particularity the reasons why the NPDES general permit rule should not be available to the discharger identified in this notice.

Any such request shall be mailed or delivered to:

Technical Secretary  
Water Pollution Control Board  
P.O. Box 6167  
Indianapolis, Indiana 46206-6167".

(c) Following submittal of a NOI letter to IDEM and publication in the newspaper by the person requesting coverage under subsection (b), IDEM shall do the following:

- (1) Review the NOI for applicability pursuant to section 3 of this rule and for compliance with the requirements of subsection (a).
- (2) List this facility, the NPDES general permit tracking number, and the information contained in this notice in a monthly publication to be distributed by IDEM to all persons who have asked to receive NPDES general permit rule notification. This monthly

publication shall be issued by IDEM on the 15th day of every month and shall identify all facilities which met both the NOI and newspaper publication requirements in the preceding month.

Requests to be placed on the NPDES general permit rule notification list shall be mailed or delivered to the address at 327 IAC 15-3-1.

(d) IDEM's monthly publication will also contain the following instructions:

"Any person aggrieved by this action may appeal in writing to the Technical Secretary of the Water Pollution Control Board for an adjudicatory hearing on the question of whether this facility should operate under this NPDES general permit rule. An appeal must be postmarked no later than fifteen (15) days from the publication date of this public notice. Such a written request for an adjudicatory hearing must:

- (A) state the name and address of the person making the request;
- (B) identify the interest of the person making the request;
- (C) identify any persons represented by the person making the request;
- (D) state with particularity the reasons for the request;
- (E) state with particularity the issues proposed for consideration at the hearing; and
- (F) identify the NPDES general permit rule terms and conditions which, in the judgment of the person making the request, would be appropriate to satisfy the requirements of the law governing this NPDES general permit rule. If any person filing such objections desires any part of this NPDES general permit rule to be stayed pending the outcome of the appeal, a specific request for such must be included in the request, identifying those parts of the rule to be stayed.

Any such request shall be mailed or delivered to:

Technical Secretary  
Water Pollution Control Board  
P.O. Box 6167  
Indianapolis, Indiana 46206-6167".

*(Water Pollution Control Board; 327 IAC 15-9-5; filed May 25, 1994, 11:00 a.m.: 17 IR 2293; errata filed Jul 11, 1994, 3:00 p.m.: 17 IR 2657; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-9-6 Deadline for submittal of NOI letter; additional information**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 6. (a) For any person operating under an existing

individual NPDES permit, that regulates a wastewater discharge affected by this NPDES general permit rule, the information required under 327 IAC 15-3 shall be submitted to the commissioner any time between the effective date of the existing individual NPDES permit and one hundred eighty (180) days prior to the expiration date of the existing individual NPDES permit, unless the commissioner determines that a later date is acceptable. For any person operating under an individual NPDES permit that regulates a wastewater discharge affected by this NPDES general permit rule and that has expired and has been administratively extended, the information required under 327 IAC 15-3 shall be submitted to the commissioner within ninety (90) days of the effective date of this NPDES general permit rule, unless the commissioner determines that a later date is acceptable.

(b) For a person proposing a new discharge, the

<u>Parameter</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
Flow	Report	Report
Oil & grease	10	15
Total VOC	Report	Report
TOC	Report	Report
Ammonia (as N)	Report	Report
Benzene	Report	Report
Total cyanide	Report	Report
Lead	Report	Report
TSS	30	45

(b) A person regulated under this rule shall comply with the following additional discharge requirements:

- (1) Tank bottom water shall not be discharged to any diked areas. Tank bottom water may be discharged directly through any outfall regulated under this rule.
- (2) The pH shall not be less than six (6.0) or greater than nine (9.0) standard units. The pH shall be monitored by a monthly grab sample.
- (3) The discharge shall not cause excessive foam in the receiving waters.
- (4) The discharge shall be essentially free of floating and settleable solids.
- (5) The discharge shall not contain oil or other substances in amounts sufficient to create a visible film or sheen on the receiving waters.
- (6) The discharge shall be free of substances that are in amounts sufficient to be unsightly or deleterious, or which produce color, odor, or other conditions in such a degree as to create a nuisance.

(c) A person regulated under this rule shall comply with the following sampling requirements:

- (1) The analytical and sampling methods used shall conform to the current version of 40 CFR 136 as

information required under 327 IAC 15-3 shall be submitted to the commissioner fifteen (15) days before the date on which the discharge is to commence as allowed in 327 IAC 15-3-3. (*Water Pollution Control Board; 327 IAC 15-9-6; filed May 25, 1994, 11:00 a.m.: 17 IR 2294; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **327 IAC 15-9-7 General conditions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 7. (a) A person regulated under this rule is authorized to discharge storm water run-off, tank bottom water, and hydrostatic test water through the outfalls identified in the NOI letter in accordance with this rule. Such discharge shall be limited and monitored as follows:

<u>Units</u>	<u>Monitoring Requirements</u>	
	<u>Measurement Frequency</u>	<u>Sample Type</u>
MGD	2XMonthly	Instantaneous
mg/l	2XMonthly	See subsection (c)(2)
mg/l	See subsection (c)(3)	Grab
mg/l	See subsection (c)(3)	Grab
mg/l	See subsection (c)(3)	See subsection (c)(4)
mg/l	See subsection (c)(3)	Grab
mg/l	See subsection (c)(3)	See subsection (c)(4)
mg/l	See subsection (c)(3)	See subsection (c)(4)
mg/l	2XMonthly	See subsection (c)(4)

referenced in 327 IAC 5-2-13(d)(1).

(2) A minimum of four (4) grab samples shall be collected at equally spaced time intervals during a forty-five (45) minute period. Each sample shall be analyzed individually, and the arithmetic mean of the measured concentrations shall be reported as the value for the twenty-four (24) hour period.

(3) On days when tank bottom water is discharged or tanks are hydrostatically tested, a person regulated under this rule shall monitor for these parameters DAILY. This sampling must occur during the time of discharge.

(4) A minimum of four (4) equal volume grab samples shall be taken at equally spaced intervals during the period in which tank bottom water is being discharged, or during a forty-five (45) minute period if tank bottom water is not being discharged. The four (4) grab samples shall be composited prior to analysis.

(5) Total volatile organic compounds (VOCs) shall be characterized by an organic chemical scan. Wastewater samples shall be prepared and analyzed in accordance with U.S. EPA Analytical Method 624 (40 CFR 136, Appendix A), as referenced in 327 IAC 5-2-13(d)(1).

During the quantitative analysis for total VOCs, the additional organic compounds that are not listed as priority pollutants in Method 624 shall be identified and quantified. This identification and quantification shall be made when these additional organic compounds are indicated to be present in the extracts by peaks on the reconstructed gas chromatograms (total ion plots) in magnitudes of more than ten (10) times higher than the peak-to-peak background noise. Identification shall be by reference to the EPA/NIH computerized library of mass spectra, with visual confirmation by an experienced analyst. Quantification may be an order of magnitude estimate based upon comparison with an internal standard.

(6) Lead is intended to be analyzed by a test method which will measure the quantity of acid-soluble metal present; however, an approved analytical method for acid-soluble is not yet available. A person shall measure and report lead as total recoverable metal until such a test method is approved which measures acid-soluble metal.

(7) Samples taken in compliance with the monitoring requirements in this section shall be taken at a point representative of the discharge but prior to entry into waters of the state as defined in 327 IAC 2-1-9.

(8) Samples and measurements taken as required in this section shall be representative of the volume and nature of the monitored discharge.

(d) A person regulated under this rule shall comply with the following reporting requirements:

(1) Monthly discharge monitoring reports shall be submitted to the data management section at the address listed in 327 IAC 15-3-1, containing results obtained during the previous month and shall be postmarked no later than the twenty-eighth day of the month following each completed monitoring period. During a month in which no discharge occurs, the person regulated under this rule shall submit the report stating that no discharge occurred.

(2) For each measurement or sample taken pursuant to the requirements of this rule, the facility shall record the following information:

- (A) The exact place, date, and time of sampling.
- (B) The person(s) who performed the sampling or measurement.
- (C) The dates the analyses were performed.
- (D) The person(s) who performed the analyses.
- (E) The analytical techniques or methods used.
- (F) The results of all required analyses.

(3) Monitoring of any pollutant at the location(s) identified in the NOI letter more frequently than required under this rule, using approved analytical methods, the results of such monitoring shall be

included in the calculation and reporting of the values required in the monthly discharge monitoring report. Such increased frequency shall also be indicated.

(4) All records and information resulting from the monitoring activities required under this rule, including all records of analyses performed and calibration and maintenance of instrumentation, shall be retained for a minimum of three (3) years. When the original records are kept at another location, a copy of such records shall be kept at the facility. The three (3) year period shall be extended:

- (A) automatically during the course of any unresolved litigation regarding the discharge of pollutants by the facility or as regarding promulgated effluent guidelines applicable to the facility; or
- (B) when requested by the regional administrator or the Indiana department of environmental management.

*(Water Pollution Control Board; 327 IAC 15-9-7; filed May 25, 1994, 11:00 a.m.: 17 IR 2294; errata filed Jul 11, 1994, 3:00 p.m.: 17 IR 2657; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-9-8 Standard conditions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 8. In addition to the conditions set forth in this rule, the standard conditions for the NPDES general permit rule under 327 IAC 15-4 shall apply also to this rule. *(Water Pollution Control Board; 327 IAC 15-9-8; filed May 25, 1994, 11:00 a.m.: 17 IR 2296; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-9-9 Inspection and enforcement**

**Authority:** IC 13-1-3-3; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 9. (a) In accordance with 327 IAC 5-1-3(c), the commissioner and/or designated representative may inspect any facility regulated under this rule at any time.

(b) Any person violating any provision of this rule shall be subject to enforcement and penalties as set forth under 327 IAC 15-1-4. *(Water Pollution Control Board; 327 IAC 15-9-9; filed May 25, 1994, 11:00 a.m.: 17 IR 2296; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-9-10 Duration of coverage**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 10. Coverage under this rule is granted by the commissioner for a period of five (5) years from the date

coverage commences. To obtain renewal of coverage under this general permit rule, the information required under 327 IAC 15-3 shall be submitted to the commissioner within ninety (90) days of the termination of coverage under this NPDES general permit rule, unless the commissioner determines that a later date is acceptable. (*Water Pollution Control Board; 327 IAC 15-9-10; filed May 25, 1994, 11:00 a.m.: 17 IR 2296; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### **Rule 10. Wastewater Discharge Associated with Ground Water Petroleum Remediation Systems**

327 IAC 15-10-1	Purpose
327 IAC 15-10-2	Definitions
327 IAC 15-10-3	Applicability
327 IAC 15-10-4	General permit rule boundary
327 IAC 15-10-5	Notice of intent letter requirements under this rule
327 IAC 15-10-6	Deadline for submittal of NOI letter; additional information
327 IAC 15-10-7	General conditions
327 IAC 15-10-8	Standard conditions
327 IAC 15-10-9	Inspection and enforcement
327 IAC 15-10-10	Duration of coverage

#### **327 IAC 15-10-1 Purpose**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 1. The purpose of this rule is to establish discharge requirements for point source discharges of wastewater associated with ground water remediation systems so that the public health, existing water uses, and aquatic biota are protected. (*Water Pollution Control Board; 327 IAC 15-10-1; filed May 25, 1994, 11:00 a.m.: 17 IR 2296; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 15-10-2 Definitions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3-1.5; IC 13-7-1

Sec. 2. In addition to the definitions contained in IC 13-7-1 and IC 13-1-3-1.5 and in 327 IAC 5 and 327 IAC 15-1-2, the following definitions apply throughout this rule:

- (1) "Concentration" means the weight of any given material present in a unit volume of liquid. Unless otherwise indicated in this rule, concentration values shall be expressed in micrograms per liter ( $\mu\text{g}/\text{l}$ ).
- (2) "Daily maximum concentration" means the daily determination of concentration for any calendar day.
- (3) "Monthly average concentration" means the arithmetic average (proportional to flow) of all daily determinations of concentration made during a calendar month.

Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily determination of concentration shall be the arithmetic average (weighted by flow value) of all the samples collected during the calendar day.

(4) "Wastewater discharge associated with ground water remediation system" means the discharge from any conveyance which is used for collecting and conveying wastewater which is directly related to the ground water remediation system.

(*Water Pollution Control Board; 327 IAC 15-10-2; filed May 25, 1994, 11:00 a.m.: 17 IR 2296; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 15-10-3 Applicability**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3  
**Affected:** IC 13-11-2; IC 13-18-4

Sec. 3. This rule applies to all persons who:

- (1) meet the NPDES general permit rule applicability requirements under 327 IAC 15-2-3;
- (2) have a point source discharge of treated wastewater controlled by a valid individual NPDES permit; or
- (3) discharge treated ground water back into the ground immediately upgradient of the contaminated site, and the subsequent movement of this water downgradient to the treatment site causes further contaminants to be flushed from the site and enhances the remediation.

(*Water Pollution Control Board; 327 IAC 15-10-3; filed May 25, 1994, 11:00 a.m.: 17 IR 2297; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1478; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 15-10-4 General permit rule boundary**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 4. Facilities existing within the boundaries of Indiana affected by this rule are regulated under this rule.

(*Water Pollution Control Board; 327 IAC 15-10-4; filed May 25, 1994, 11:00 a.m.: 17 IR 2297; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

#### **327 IAC 15-10-5 Notice of intent letter requirements under this rule**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 5. (a) In addition to the NOI letter requirements contained in 327 IAC 15-3, a person regulated under this rule must identify in the NOI letter each point source

discharge of wastewater associated with ground water petroleum remediation systems. This identification of point source discharge shall include the following:

- (1) The discharge location of each outfall and its associated receiving stream.
- (2) The type of wastewater discharged through each outfall.
- (3) An identifying outfall number. The numbering shall start at 001 for the first outfall, 002 for the second outfall, and continue in that manner until all outfalls are numbered.

(b) The NOI letter must also include proof of publication of the following statement in a newspaper of largest circulation in the area of the discharge:

"(Your facility name, address, address of the location of the discharge, and the stream(s) receiving the discharge(s)) is submitting a Notice of Intent letter to notify the Indiana Department of Environmental Management of our intent to comply with the requirements under 327 IAC 15-10 to discharge wastewater associated with ground water petroleum remediation systems. Any person aggrieved by this action may appeal in writing to the Technical Secretary of the Water Pollution Control Board for an adjudicatory hearing on the question of whether this facility should operate under this NPDES general permit rule. An appeal must be postmarked no later than fifteen (15) days from the date of this public notice. Such a written request for an adjudicatory hearing must:

- (A) state the name and address of the person making the request;
- (B) identify the interest of the person making the request;
- (C) identify any persons represented by the person making the request;
- (D) state with particularity the reasons for the request;
- (E) state with particularity the issues proposed for consideration at the hearing; and
- (F) state with particularity the reasons why the NPDES general permit rule should not be available to the discharger identified in this notice.

Any such request shall be mailed or delivered to:

Technical Secretary  
Water Pollution Control Board  
P.O. Box 6167  
Indianapolis, Indiana 46206-6167".

(c) Following submittal of a NOI letter to IDEM and publication in the newspaper by the person requesting coverage under subsection (b), IDEM shall do the following:

- (1) Review the NOI for applicability pursuant to section 3 of this rule and for compliance with the

requirements of subsection (a).

- (2) List this facility, the NPDES general permit tracking number, and the information contained in this notice in a monthly publication to be distributed by IDEM to all persons who have asked to receive NPDES general permit rule notification. This monthly publication shall be issued by IDEM on the fifteenth day of every month and shall identify all facilities which met both the NOI and newspaper publication requirements in the preceding month.

Requests to be placed on the NPDES general permit rule notification list shall be mailed or delivered to the address at 327 IAC 15-3-1.

(d) IDEM's monthly publication will also contain the following instructions:

"Any person aggrieved by this action may appeal in writing to the Technical Secretary of the Water Pollution Control Board for an adjudicatory hearing on the question of whether this facility should operate under this NPDES general permit rule. An appeal must be postmarked no later than fifteen (15) days from the publication date of this public notice. Such a written request for an adjudicatory hearing must:

- (A) state the name and address of the person making the request;
- (B) identify the interest of the person making the request;
- (C) identify any persons represented by the person making the request;
- (D) state with particularity the reasons for the request;
- (E) state with particularity the issues proposed for consideration at the hearing; and
- (F) identify the NPDES general permit rule terms and conditions which, in the judgment of the person making the request, would be appropriate to satisfy the requirements of the law governing this NPDES general permit rule. If any person filing such objections desires any part of this NPDES general permit rule to be stayed pending the outcome of the appeal, a specific request for such must be included in the request, identifying those parts of the rule to be stayed.

Any such request shall be mailed or delivered to:

Technical Secretary  
Water Pollution Control Board  
P.O. Box 6167  
Indianapolis, Indiana 46206-6167".

*(Water Pollution Control Board; 327 IAC 15-10-5; filed May 25, 1994, 11:00 a.m.: 17 IR 2297; errata filed Jul 11, 1994, 3:00 p.m.: 17 IR 2657; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### 327 IAC 15-10-6 Deadline for submittal of NOI letter; additional information

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 6. (a) For any person operating under an existing individual NPDES permit, that regulates a wastewater discharge affected by this NPDES general permit rule, the information required under 327 IAC 15-3 shall be submitted to the commissioner any time between the effective date of the existing individual NPDES permit and one hundred eighty (180) days prior to the expiration date of the existing individual NPDES permit, unless the commissioner determines that a later date is acceptable. For any person operating under an individual NPDES permit that regulates a wastewater discharge affected by this NPDES general permit rule and that has expired and has been administratively extended, the information required under 327 IAC 15-3 shall be submitted to the commissioner within ninety (90) days of the effective

date of this NPDES general permit rule, unless the commissioner determines that a later date is acceptable.

(b) For a person proposing a new discharge, the information required under 327 IAC 15-3 shall be submitted to the commissioner fifteen (15) days before the date on which the discharge is to commence as allowed in 327 IAC 15-3-3. (*Water Pollution Control Board; 327 IAC 15-10-6; filed May 25, 1994, 11:00 a.m.: 17 IR 2298; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 15-10-7 General conditions

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 7. (a) A person regulated under this rule is authorized to discharge wastewater associated with ground water remediation systems through outfalls identified in the NOI letter in accordance with this rule. Such discharge shall be limited and monitored as follows:

<u>Parameter</u>	<u>Monitoring Requirements</u>		<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Monthly Average</u>	<u>Weekly Average</u>			
Flow	Report	Report	MGD	1XMonthly	24-hr. total
Benzene	Report	5.0	µg/l	1XMonthly	Grab

(b) A person regulated under this rule shall comply with the following additional discharge requirements:

- (1) The flow may be estimated using the pump rate and the length of pumping time.
- (2) The pH shall not be less than six (6.0) or greater than nine (9.0) standard units. The pH shall be monitored by a monthly grab sample.
- (3) The discharge shall not cause excessive foam in the receiving waters.
- (4) The discharge shall be essentially free of floating and settleable solids.
- (5) The discharge shall not contain oil or other substances in amounts sufficient to create a visible film or sheen on the receiving waters.
- (6) The discharge shall be free of substances that are in amounts sufficient to be unsightly or deleterious, or which produce color, odor, or other conditions in such a degree as to create a nuisance.

(c) A person regulated under this rule shall comply with the following sampling requirements:

- (1) The analytical and sampling methods used shall conform to the current version of 40 CFR 136 as referenced in 327 IAC 5-2-13(d)(1).
- (2) Samples taken in compliance with the monitoring requirements in this section shall be taken at a point representative of the discharge but prior to entry into waters of the state as defined in 327 IAC 2-1-9.
- (3) Samples and measurements taken as required in

this section shall be representative of the volume and nature of the monitored discharge.

(d) A person regulated under this rule shall comply with the following reporting requirements:

- (1) Monthly discharge monitoring reports shall be submitted to the data management section at the address listed in 327 IAC 15-3-1, containing results obtained during the previous month and shall be postmarked no later than the twenty-eighth day of the month following each completed monitoring period. During a month in which no discharge occurs, the person regulated under this rule shall submit the report stating that no discharge occurred.
- (2) For each measurement or sample taken pursuant to the requirements of this rule, the facility shall record the following information:
  - (A) The exact place, date, and time of sampling.
  - (B) The person(s) who performed the sampling or measurement.
  - (C) The dates the analyses were performed.
  - (D) The person(s) who performed the analyses.
  - (E) The analytical techniques or methods used.
  - (F) The results of all required analyses.

(3) Monitoring of any pollutant at the location(s) identified in the NOI letter more frequently than required under this rule, using approved analytical methods, the results of such monitoring shall be included in the calculation and reporting of the values

required in the monthly discharge monitoring report. Such increased frequency shall also be indicated.

(4) All records and information resulting from the monitoring activities required under this rule, including all records of analyses performed and calibration and maintenance of instrumentation, shall be retained for a minimum of three (3) years. When the original records are kept at another location, a copy of such records shall be kept at the facility. The three (3) year period shall be extended:

- (A) automatically during the course of any unresolved litigation regarding the discharge of pollutants by the facility or as regarding promulgated effluent guidelines applicable to the facility; or
- (B) when requested by the regional administrator or the Indiana department of environmental management.

*(Water Pollution Control Board; 327 IAC 15-10-7; filed May 25, 1994, 11:00 a.m.: 17 IR 2298; errata filed Jul 11, 1994, 3:00 p.m.: 17 IR 2658; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-10-8 Standard conditions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 8. In addition to the conditions set forth in this rule, the standard conditions for the NPDES general permit rule under 327 IAC 15-4 shall apply also to this rule. *(Water Pollution Control Board; 327 IAC 15-10-8; filed May 25, 1994, 11:00 a.m.: 17 IR 2299; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-10-9 Inspection and enforcement**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 9. In accordance with 327 IAC 5-1-3(c), the commissioner and/or designated representative may inspect any facility regulated under this rule at any time. *(Water Pollution Control Board; 327 IAC 15-10-9; filed May 25, 1994, 11:00 a.m.: 17 IR 2299; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-10-10 Duration of coverage**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 10. Coverage under this rule is granted by the commissioner for a period of five (5) years from the date coverage commences. To obtain renewal of coverage under this general permit rule, the information required under 327 IAC 15-3 shall be submitted to the commissioner within ninety (90) days of the termination of

coverage under this NPDES general permit rule, unless the commissioner determines that a later date is acceptable. *(Water Pollution Control Board; 327 IAC 15-10-10; filed May 25, 1994, 11:00 a.m.: 17 IR 2299; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **Rule 11. Wastewater Discharge Associated with Hydrostatic Testing of Commercial Pipelines**

- 327 IAC 15-11-1 Purpose
- 327 IAC 15-11-2 Definitions
- 327 IAC 15-11-3 Applicability
- 327 IAC 15-11-4 General permit rule boundary
- 327 IAC 15-11-5 NOI letter requirements under this rule
- 327 IAC 15-11-6 Deadline for submittal of NOI letter; additional information
- 327 IAC 15-11-7 General conditions
- 327 IAC 15-11-8 Standard conditions
- 327 IAC 15-11-9 Inspection and enforcement
- 327 IAC 15-11-10 Duration of coverage

#### **327 IAC 15-11-1 Purpose**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 1. The purpose of this rule is to establish requirements for point source discharges of wastewater associated with hydrostatic testing of commercial pipelines so that the public health, existing water uses, and aquatic biota are protected. *(Water Pollution Control Board; 327 IAC 15-11-1; filed May 25, 1994, 11:00 a.m.: 17 IR 2299; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

#### **327 IAC 15-11-2 Definitions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3-1.5; IC 13-7-1

Sec. 2. In addition to the definitions contained in IC 13-7-1 and IC 13-1-3-1.5 and in 327 IAC 5 and 327 IAC 15-1-2, the following definitions apply throughout this rule:

- (1) "Commercial pipeline" means a pipeline, generally underground, that transports petroleum or natural gas.
- (2) "Concentration" means the weight of any given material present in a unit volume of liquid. Unless otherwise indicated in this rule, concentration values shall be expressed in milligrams per liter (mg/l).
- (3) "Daily maximum concentration" means the daily determination of concentration for any calendar day.
- (4) "Monthly average concentration" means the arithmetic average (proportional to flow) of all daily determinations of concentration made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used,

the daily determination of concentration shall be the arithmetic average (weighted by flow value) of all the samples collected during the calendar day.

(5) "Wastewater discharge associated with hydrostatic testing of commercial pipelines" means the discharge from conveyance, used for collecting and conveying wastewater which is directly related to commercial pipelines. This includes discharge of water used for hydrostatically testing new or existing pipelines.

*(Water Pollution Control Board; 327 IAC 15-11-2; filed May 25, 1994, 11:00 a.m.: 17 IR 2299; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-11-3 Applicability**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 3. This rule applies to all persons who:

- (1) meet the NPDES general permit rule applicability requirements under 327 IAC 15-2-3; or
- (2) have a point source discharge of wastewater controlled by a valid individual NPDES permit.

*(Water Pollution Control Board; 327 IAC 15-11-3; filed May 25, 1994, 11:00 a.m.: 17 IR 2300; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1478; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-11-4 General permit rule boundary**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 4. Facilities existing within the boundaries of Indiana affected by this rule are regulated under this rule.  
*(Water Pollution Control Board; 327 IAC 15-11-4; filed May 25, 1994, 11:00 a.m.: 17 IR 2300; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-11-5 NOI letter requirements under this rule**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 5. (a) In addition to the NOI letter requirements contained in 327 IAC 15-3, a person regulated under this rule must identify in the NOI letter each point source discharge of wastewater associated with the hydrostatic testing of new or existing commercial pipelines. This identification of point source discharge shall include the following:

- (1) The discharge location of each outfall and its associated receiving stream.
- (2) The type of wastewater discharged through each outfall.

(3) An identifying outfall number. The numbering shall start at 001 for the first outfall, 002 for the second outfall, and continue in that manner until all outfalls are numbered.

(b) The NOI letter must also include proof of publication of the following statement in a newspaper of largest circulation in the area of the discharge:

"(Your facility name, address, address of the location of the discharging facility, and the stream(s) receiving the discharge(s)) is submitting a Notice of Intent letter to notify the Indiana Department of Environmental Management of our intent to comply with the requirements under 327 IAC 15-11 to discharge wastewater associated with hydrostatic testing of commercial pipelines. Any person aggrieved by this action may appeal in writing to the Technical Secretary of the Water Pollution Control Board for an adjudicatory hearing on the question of whether this facility should operate under this NPDES general permit rule. An appeal must be postmarked no later than fifteen (15) days from the date of this public notice. Such a written request for an adjudicatory hearing must:

- (A) state the name and address of the person making the request;
- (B) identify the interest of the person making the request;
- (C) identify any persons represented by the person making the request;
- (D) state with particularity the reasons for the request;
- (E) state with particularity the issues proposed for consideration at the hearing; and
- (F) state with particularity the reasons why the NPDES general permit rule should not be available to the discharger identified in this notice.

Any such request shall be mailed or delivered to:

Technical Secretary  
Water Pollution Control Board  
P.O. Box 6167  
Indianapolis, Indiana 46206-6167".

(c) Following submittal of a NOI letter to IDEM and publication in the newspaper by the person requesting coverage under subsection (b), IDEM shall do the following:

- (1) Review the NOI for applicability pursuant to section 3 of this rule and for compliance with the requirements of subsection (a).
- (2) List this facility, the NPDES general permit tracking number, and the information contained in this notice in a monthly publication to be distributed by IDEM to all persons who have asked to receive NPDES general permit rule notification. This monthly publication shall be issued by IDEM on the fifteenth

day of every month and shall identify all facilities which met both the NOI and newspaper publication requirements in the preceding month.

Requests to be placed on the NPDES general permit rule notification list shall be mailed or delivered to the address at 327 IAC 15-3-1.

(d) IDEM's monthly publication will also contain the following instructions:

"Any person aggrieved by this action may appeal in writing to the Technical Secretary of the Water Pollution Control Board for an adjudicatory hearing on the question of whether this facility should operate under this NPDES general permit rule. An appeal must be postmarked no later than fifteen (15) days from the publication date of this public notice. Such a written request for an adjudicatory hearing must:

- (A) state the name and address of the person making the request;
- (B) identify the interest of the person making the request;
- (C) identify any persons represented by the person making the request;
- (D) state with particularity the reasons for the request;
- (E) state with particularity the issues proposed for consideration at the hearing; and
- (F) identify the NPDES general permit rule terms and conditions which, in the judgment of the person making the request, would be appropriate to satisfy the requirements of the law governing this NPDES general permit rule. If any person filing such objections desires any part of this NPDES general permit rule to be stayed pending the outcome of the appeal, a specific request for such must be included in the request, identifying those parts of the rule to be stayed.

Any such request shall be mailed or delivered to:

Technical Secretary  
 Water Pollution Control Board  
 P.O. Box 6167  
 Indianapolis, Indiana 46206-6167".

*(Water Pollution Control Board; 327 IAC 15-11-5; filed May 25, 1994, 11:00 a.m.: 17 IR 2300; errata filed Jul 11, 1994, 3:00 p.m.: 17 IR 2658; readopted filed Jan 10,*

*2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 15-11-6 Deadline for submittal of NOI letter; additional information**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 6. (a) For any person operating under an existing individual NPDES permit that regulates a wastewater discharge affected by this NPDES general permit rule, the information required under 327 IAC 15-3 shall be submitted to the commissioner any time between the effective date of the existing individual NPDES permit and one hundred eighty (180) days prior to the expiration date of the existing individual NPDES permit, unless the commissioner determines that a later date is acceptable. For any person operating under an individual NPDES permit that regulates a wastewater discharge affected by this NPDES general permit rule and that has expired and has been administratively extended, the information required under 327 IAC 15-3 shall be submitted to the commissioner within ninety (90) days of the effective date of this NPDES general permit rule, unless the commissioner determines that a later date is acceptable.

(b) For a person proposing a new discharge, the information required under 327 IAC 15-3 shall be submitted to the commissioner fifteen (15) days before the date on which the discharge is to commence as allowed in 327 IAC 15-3-3. *(Water Pollution Control Board; 327 IAC 15-11-6; filed May 25, 1994, 11:00 a.m.: 17 IR 2301; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 15-11-7 General conditions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 7. (a) A person regulated under this rule is authorized to discharge wastewater associated with hydrostatic testing of new or existing commercial pipelines through the outfalls identified in the NOI letter in accordance with this rule. Such discharge shall be limited and monitored as follows:

<u>Parameter</u>	<u>Monitoring Requirements</u>		<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Monthly Average</u>	<u>Daily Maximum</u>			
Flow	Report	Report	MGD	Daily	24-hr. total
Oil and grease	—	15	mg/l	Daily	Grab
TSS	—	45	mg/l	Daily	Grab

(b) A person regulated under this rule shall comply with the following additional discharge requirements:

- (1) The discharge volume may be estimated by calcu-

lating the volume of water which can be contained in the section of pipeline being tested.

- (2) The pH shall not be less than six (6.0) or greater

than nine (9.0) standard units. The pH shall be monitored by daily grab sample.

(3) The discharge shall not cause excessive foam in the receiving waters.

(4) The discharge shall be essentially free of floating and settleable solids.

(5) The discharge shall not contain oil or other substances in amounts sufficient to create a visible film or sheen on the receiving waters.

(6) The discharge shall be free of substances that are in amounts sufficient to be unsightly or deleterious or which produce color, odor, or other conditions in such a degree as to create a nuisance.

(7) There shall be no impingement and entrainment of fish when drawing water from a surface water body.

(8) Wastes generated by cleaning the interior of a pipeline shall be disposed of in accordance with all applicable statutes and rules.

(c) A person regulated under this rule shall comply with the following sampling requirements:

(1) The analytical and sampling methods used shall conform to the current version of 40 CFR 136 as referenced in 327 IAC 5-2-13(d)(1).

(2) Grab samples shall be taken of the hydrostatic test water being discharged as it leaves the pipeline being tested or after receiving treatment at the beginning and at the end of the discharge and two (2) times during the discharge at evenly spaced time intervals. All of the grab samples shall be combined into one (1) composite sample at the end of the test period for analysis.

(3) Samples taken in compliance with the monitoring requirements in this section shall be taken at a point representative of the discharge but prior to entry into the waters of the state as defined in 327 IAC 2-1-9.

(4) Samples and measurements taken as required in this section shall be representative of the volume and nature of the monitored discharge.

(d) A person regulated under this rule shall comply with the following reporting requirements:

(1) A discharge monitoring report shall be submitted to the data management section at the address listed in 327 IAC 15-3-1, containing results for the discharge event covered by this rule. The report shall be post-marked no later than the twenty-eighth day of the month following the discharge event.

(2) For each measurement or sample taken pursuant to the requirements of this rule, the facility shall record the following information:

(A) The exact place, date, and time of sampling.

(B) The person(s) who performed the sampling or measurements.

(C) The dates the analyses were performed.

(D) The person(s) who performed the analyses.

(E) The analytical techniques or methods used.

(F) The results of all required analyses.

(3) Monitoring of any pollutant at the location(s) identified in the NOI letter more frequently than required under this rule, using approved analytical methods, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report. Such increase in frequency shall also be indicated.

(4) All records and information resulting from the monitoring activities required under this rule, including all records of analyses performed and calibration and maintenance of instrumentation and recording from continuous monitoring instrumentation, shall be retained for a minimum of three (3) years. When the original records are kept at another location, a copy of all such records shall be kept at the facility. The three (3) year period shall be extended:

(A) automatically during the course of any unresolved litigation regarding the discharge of pollutants by the facility or as regarding promulgated effluent guidelines applicable to the facility; or

(B) when requested by the regional administrator or the Indiana department of environmental management.

*(Water Pollution Control Board; 327 IAC 15-11-7; filed May 25, 1994, 11:00 a.m.: 17 IR 2301; errata filed Jul 11, 1994, 3:00 p.m.: 17 IR 2658; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-11-8 Standard conditions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 8. In addition to the conditions set forth in this rule, the standard conditions for the NPDES general permit rule under 327 IAC 15-4 shall apply also to this rule. *(Water Pollution Control Board; 327 IAC 15-11-8; filed May 25, 1994, 11:00 a.m.: 17 IR 2302; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-11-9 Inspection and enforcement**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 9. (a) In accordance with 327 IAC 5-1-3(c), the commissioner and/or designated representative may inspect any facility regulated under this rule at any time.

(b) Any person violating any provision of this rule shall be subject to enforcement and penalties as set forth under 327 IAC 15-1-4. *(Water Pollution Control Board; 327 IAC 15-11-9; filed May 25, 1994, 11:00 a.m.: 17 IR 2302; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

**327 IAC 15-11-10 Duration of coverage**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 10. Coverage under this rule is granted by the commissioner for a period of five (5) years from the date coverage commences. To obtain renewal of coverage under this general permit rule, the information required under 327 IAC 15-3 shall be submitted to the commissioner within ninety (90) days of the termination of coverage under this NPDES general permit rule, unless the commissioner determines that a later date is acceptable. (*Water Pollution Control Board; 327 IAC 15-11-10; filed May 25, 1994, 11:00 a.m.: 17 IR 2302; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**Rule 12. Facilities Engaged in Sand, Gravel, Dimension Stone, or Crushed Stone Operations**

327 IAC 15-12-1	Purpose
327 IAC 15-12-2	Definitions
327 IAC 15-12-3	Applicability
327 IAC 15-12-4	General permit rule boundary
327 IAC 15-12-5	Notice of intent letter requirements under this rule
327 IAC 15-12-6	Deadline for submittal of NOI letter; additional information
327 IAC 15-12-7	General conditions
327 IAC 15-12-8	Standard conditions
327 IAC 15-12-9	Inspection and enforcement
327 IAC 15-12-10	Duration of coverage

**327 IAC 15-12-1 Purpose**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 1. The purpose of this rule is to regulate wastewater discharges from sand, gravel, dimension stone, and crushed stone operations which utilize sedimentation basin treatment for:

- (1) pit dewatering;
- (2) channel machines;
- (3) broaching;
- (4) jet piercing;
- (5) scrubber water from wet scrubbers used for air pollution control;
- (6) dust suppression spray water;
- (7) wash water from spray bars for final screening operations; and
- (8) noncontact cooling water for cooling of:
  - (A) crusher bearings;
  - (B) drills;
  - (C) saws;
  - (D) dryers;
  - (E) pumps; and
  - (F) air compressors;

so that the public health, existing water uses, and aquatic biota are protected. (*Water Pollution Control Board; 327 IAC 15-12-1; filed May 25, 1994, 11:00 a.m.: 17 IR 2303; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

**327 IAC 15-12-2 Definitions**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3-1.5; IC 13-7-1

Sec. 2. In addition to the definitions contained in IC 13-7-1 and IC 13-1-3-1.5 and in 327 IAC 5 and 327 IAC 15-1-2, the following definitions apply throughout this rule:

- (1) "4 × yearly sample frequency" means the performance of the associated monitoring once any time during each of the four (4) annual quarters:
  - (A) January-February-March;
  - (B) April-May-June;
  - (C) July-August-September; and
  - (D) October-November-December.
- (2) "Broaching" means a drilling method whereupon successively larger and deeper holes are cut into the stone until the stone is removed between the holes. Water is used to control dust, wash away stone chips, and cool the drill.
- (3) "Channel machine" means a long, semi-automated, multiple-head chisel machine used primarily to quarry limestone. Stone chips created during chiseling must be washed constantly away with water.
- (4) "Concentration" means the mass of any given material present in a unit volume of liquid. Unless otherwise indicated in this rule, concentration values shall be expressed in milligrams per liter (mg/l).
- (5) "Feldspar" means any of a group of crystalline minerals that consists of aluminum silicates with either potassium, sodium, calcium, or barium.
- (6) "Feldspathic" means relating to or containing feldspar.
- (7) "Ilmenite" means an iron black mineral composed of iron, titanium, and oxygen.
- (8) "Jet piercing" means fuel oil forced under pressure through a nozzle producing a high velocity jet flame which is combined with a stream of water to cut a channel by disintegration.
- (9) "Pit dewatering" means any water that is impounded or that collects in the pit and is pumped, drained, or otherwise removed from the pit through the efforts of the pit operator. This term shall also include wet pit overflows caused solely by direct rainfall and/or ground water seepage.
- (10) "Settleable solids" means that matter measured by the volumetric method specified in 40 CFR 434.64,

which is: Fill an Imhoff cone to the one (1) liter mark with a thoroughly mixed sample. Allow to settle undisturbed for forty-five (45) minutes. Gently stir along the inside surface of the cone with a stirring rod. Allow to settle undisturbed for fifteen (15) minutes longer. Record the volume of settled material in the cone as milliliters per liter (ml/l). Where a separation of settleable and floating materials occurs, do not include the floating material in the reading. The method detection limit for measuring settleable solids shall be four-tenths (0.4) ml/l.

(11) "TSS" or "total suspended solids" means the mass of suspended matter in wastewater retained on a standard glass fiber filter after filtration of a well-mixed sample and after drying for one (1) hour at one hundred three degrees Celsius (103°C).

(*Water Pollution Control Board; 327 IAC 15-12-2; filed May 25, 1994, 11:00 a.m.: 17 IR 2303; errata filed Jul 11, 1994, 3:00 p.m.: 17 IR 2658; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 15-12-3 Applicability

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

**Affected:** IC 13-11-2; IC 13-18-4

Sec. 3. (a) This rule applies to all persons who:

(1) meet the NPDES general permit rule applicability requirements under 327 IAC 15-2-3; or

(2) have an existing point source discharge of wastewater controlled by a valid individual NPDES permit.

(b) Facilities not authorized to discharge by this NPDES general permit rule and are required to obtain an individual NPDES permit are as follows:

(1) Crushed stone operations utilizing flotation agents to remove impurities from marble or other carbonaceous rock. The flotation agents utilized include:

- (A) organic amines;
- (B) fatty acids; and
- (C) pine oils.

(2) Industrial sand operations utilizing:

- (A) acid flotation to effect removal of iron oxide and ilmenite impurities;
- (B) alkaline flotation to remove aluminate bearing materials; or
- (C) hydrofluoric acid flotation for removal of feldspar.

(3) Industrial sand operations utilizing the acid leaching process. The acid leaching process pertains to the removal of iron from feldspathic sand for use in glass manufacturing. A strong hydrochloric or sulfuric acid is used.

The types of process wastewater identified in this subsection can contain varying concentrations of substances that may require water quality based effluent limits or best professional judgment limits. (*Water Pollution Control Board; 327 IAC 15-12-3; filed May 25, 1994, 11:00 a.m.: 17 IR 2303; errata filed Jul 11, 1994, 3:00 p.m.: 17 IR 2658; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1478; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 15-12-4 General permit rule boundary

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 4. Facilities existing within the boundaries of Indiana affected by this rule are regulated under this rule. (*Water Pollution Control Board; 327 IAC 15-12-4; filed May 25, 1994, 11:00 a.m.: 17 IR 2304; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 15-12-5 Notice of intent letter requirements under this rule

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 5. (a) In addition to the NOI letter requirements contained in 327 IAC 15-3, a person regulated under this rule must identify in the NOI letter each point source discharge regulated under this rule. This identification of point source discharge shall include the following:

(1) The discharge location of each outfall and its associated receiving stream.

(2) The type of wastewater discharged through each outfall.

(3) An identifying outfall number. The numbering shall start at 001 for the first outfall, 002 for the second outfall, and continue in that manner until all outfalls are numbered.

(4) A topographical map identifying the location of the operation, the receiving stream(s), and the location of each numbered outfall.

(b) The NOI letter must also include proof of publication of the following statement in a newspaper of largest circulation in the area of the discharge:

"(Your facility name, address, address of the location of the discharging facility, and the stream(s) receiving the discharge(s)) is submitting a Notice of Intent letter to notify the Indiana Department of Environmental Management of our intent to comply with the requirements under 327 IAC 15-12 to discharge wastewater associated with sand, gravel, dimension stone, or crushed stone operations. Any person aggrieved by this action may appeal in writing to the Technical Secretary

of the Water Pollution Control Board for an adjudicatory hearing on the question of whether this facility should operate under this NPDES general permit rule. An appeal must be postmarked no later than fifteen (15) days from the date of this public notice. Such a written request for an adjudicatory hearing must:

- (A) state the name and address of the person making the request;
- (B) identify the interest of the person making the request;
- (C) identify any persons represented by the person making the request;
- (D) state with particularity the reasons for the request;
- (E) state with particularity the issues proposed for consideration at the hearing; and
- (F) state with particularity the reasons why the NPDES general permit rule should not be available to the discharger identified in this notice.

Any such request shall be mailed or delivered to:

Technical Secretary  
Water Pollution Control Board  
P.O. Box 6167  
Indianapolis, Indiana 46206-6167".

(c) Following submittal of a NOI letter to IDEM and publication in the newspaper by the person requesting coverage under subsection (b), IDEM shall do the following:

- (1) Review the NOI for applicability pursuant to section 3 of this rule and for compliance with the requirements of subsection (a).
- (2) List this facility, the NPDES general permit tracking number, and the information contained in this notice in a monthly publication to be distributed by IDEM to all persons who have asked to receive NPDES general permit rule notification. This monthly publication shall be issued by IDEM on the fifteenth day of every month and shall identify all facilities which met both the NOI and newspaper publication requirements in the preceding month.

Requests to be placed on the NPDES general permit rule notification list shall be mailed or delivered to the address at 327 IAC 15-3-1.

(d) IDEM's monthly publication will also contain the following instructions:

"Any person aggrieved by this action may appeal in writing to the Technical Secretary of the Water Pollution Control Board for an adjudicatory hearing on the question of whether this facility should operate under this NPDES general permit rule. An appeal must be postmarked no later than fifteen (15) days from the publication date of this public notice. Such a written request for an adjudicatory hearing must:

- (A) state the name and address of the person making the request;

- (B) identify the interest of the person making the request;

- (C) identify any persons represented by the person making the request;

- (D) state with particularity the reasons for the request;

- (E) state with particularity the issues proposed for consideration at the hearing; and

- (F) identify the NPDES general permit rule terms and conditions which, in the judgment of the person making the request, would be appropriate to satisfy the requirements of the law governing this NPDES general permit rule. If any person filing such objections desires any part of this NPDES general permit rule to be stayed pending the outcome of the appeal, a specific request for such must be included in the request, identifying those parts of the rule to be stayed.

Any such request shall be mailed or delivered to:

Technical Secretary  
Water Pollution Control Board  
P.O. Box 6167  
Indianapolis, Indiana 46206-6167".

*(Water Pollution Control Board; 327 IAC 15-12-5; filed May 25, 1994, 11:00 a.m.: 17 IR 2304; errata filed Jul 11, 1994, 3:00 p.m.: 17 IR 2658; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)*

### **327 IAC 15-12-6 Deadline for submittal of NOI letter; additional information**

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 6. (a) For any person operating under an existing individual NPDES permit, that regulates a wastewater discharge affected by this NPDES general permit rule, the information required under 327 IAC 15-3 shall be submitted to the commissioner any time between the effective date of the existing individual NPDES permit and one hundred eighty (180) days prior to the expiration date of the existing individual NPDES permit, unless the commissioner determines that a later date is acceptable. For any person operating under an individual NPDES permit that regulates a wastewater discharge affected by this NPDES general permit rule and that has expired and has been administratively extended, the information required under 327 IAC 15-3 shall be submitted to the commissioner within ninety (90) days of the effective date of this NPDES general permit rule, unless the commissioner determines that a later date is acceptable.

(b) For a person proposing a new discharge, the information required under 327 IAC 15-3 shall be submitted to the commissioner fifteen (15) days before the date on which the discharge is to commence as allowed in 327 IAC 15-3-3.  
*(Water Pollution Control Board; 327 IAC 15-12-6; filed*

May 25, 1994, 11:00 a.m.: 17 IR 2305; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)

### 327 IAC 15-12-7 General conditions

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

<u>Parameter</u>	<u>Daily Minimum</u>	<u>Daily Maximum</u>	<u>Weekly Average</u>
Flow	–	Report	–
TSS	–	–	30
pH	6.0	9.0	–

(b) A person regulated under this rule shall comply with the following additional discharge requirements:

- (1) The discharge shall not cause excessive foam in the receiving waters.
- (2) The discharge shall be essentially free of floating and settleable solids.
- (3) The discharge shall not contain oil or other substances in amounts sufficient to create a visible film or sheen on the receiving waters.
- (4) The discharge shall be free of substances that are in amounts sufficient to be unsightly or deleterious or which produce color, odor, or other conditions in such a degree as to create a nuisance.

(c) A person regulated under this rule shall comply with the following sampling requirements:

- (1) Samples taken in compliance with the monitoring requirements in this section shall be taken at a point representative of the discharge but prior to entry into waters of Indiana.
- (2) The analytical and sampling methods used shall conform to the current version of 40 CFR 136 as referenced in 327 IAC 5-2-13(d)(1).
- (3) Samples and measurements taken as required in this section shall be representative of the volume and nature of the monitored discharge.

(d) A person regulated under this rule shall comply with the following reporting requirements:

- (1) Monthly discharge monitoring reports shall be submitted to the data management section at the address listed in 327 IAC 15-3-1, containing results obtained during the previous month and shall be postmarked no later than the twenty-eighth day of the month following each completed monitoring period. During a month in which no discharge occurs, a person regulated under this rule shall submit the report stating that no discharge occurred.
- (2) For each measurement or sample taken pursuant to the requirements of this rule, the facility shall record the following information:
  - (A) The exact place, date, and time of sampling.

Sec. 7. (a) A person regulated under this rule is authorized to discharge all wastewaters regulated under this rule through the outfalls identified in the NOI letter in accordance with this rule. Such discharge shall be limited and monitored as specified below:

<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
MGD	4XYearly	Instantaneous
mg/l	4XYearly	Grab
s.u.	4XYearly	Grab

(B) The person(s) who performed the sampling or measurements.

(C) The dates the analyses were performed.

(D) The person(s) who performed the analyses.

(E) The analytical techniques or methods used.

(F) The results of all required analyses and measurements.

(3) Monitoring of any pollutant at the location(s) identified in the NOI letter more frequently than required under this rule, using approved analytical methods, the results of such monitoring shall be included in the calculation and reporting of the values required in the monthly discharge monitoring report. Such increased frequency shall also be indicated in this report.

(4) All records and information resulting from the monitoring activities required under this rule, including all records of analyses performed and calibration and maintenance of instrumentation and recording from continuous monitoring instrumentation, shall be retained for a minimum of three (3) years. When the original records are kept at another location, a copy of all such records shall be kept at the facility. The three (3) year period shall be extended:

(A) automatically during the course of any unresolved litigation regarding the discharge of pollutants by the facility or regarding promulgated effluent guidelines applicable to the facility; or

(B) as requested by the regional administrator or the Indiana department of environmental management.

(Water Pollution Control Board; 327 IAC 15-12-7; filed May 25, 1994, 11:00 a.m.: 17 IR 2305; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518)

### 327 IAC 15-12-8 Standard conditions

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1

**Affected:** IC 13-1-3; IC 13-7

Sec. 8. In addition to the conditions set forth in this rule, the standard conditions for the NPDES general

permit rule under 327 IAC 15-4 shall apply also to this rule. (*Water Pollution Control Board; 327 IAC 15-12-8; filed May 25, 1994, 11:00 a.m.: 17 IR 2306; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 15-12-9 Inspection and enforcement

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 9. (a) The commissioner and/or designated representative may inspect any facility regulated under this rule at any time.

(b) Any person violating any provision of this rule shall be subject to enforcement and penalty as set forth under 327 IAC 15-1-4. (*Water Pollution Control Board; 327 IAC 15-12-9; filed May 25, 1994, 11:00 a.m.: 17 IR 2306; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

### 327 IAC 15-12-10 Duration of coverage

**Authority:** IC 13-1-3-4; IC 13-1-3-7; IC 13-7-7; IC 13-7-10-1  
**Affected:** IC 13-1-3; IC 13-7

Sec. 10. Coverage under this rule is granted by the commissioner for a period of five (5) years from the date coverage commences. To obtain renewal of coverage under this general permit rule, the information required under 327 IAC 15-3 shall be submitted to the commissioner within ninety (90) days of the termination of coverage under this NPDES general permit rule, unless the commissioner determines that a later date is acceptable. (*Water Pollution Control Board; 327 IAC 15-12-10; filed May 25, 1994, 11:00 a.m.: 17 IR 2306; readopted filed Jan 10, 2001, 3:23 p.m.: 24 IR 1518*)

## Rule 13. Storm Water Run-Off Associated with Municipal Separate Storm Sewer System Conveyances

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### 327 IAC 15-13-1 Purpose

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2  
**Affected:** IC 13-18-4

Sec. 1. The purpose of this rule is to establish requirements for storm water discharges from municipal separate storm sewer system (MS4) conveyances so that public health, existing water uses, and aquatic biota are protected. (*Water Pollution Control Board; 327 IAC 15-13-1; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3577*)

### 327 IAC 15-13-2 Applicability

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2  
**Affected:** IC 13-18-4

Sec. 2. This rule applies to an MS4 entity that:

- (1) is not required to obtain an individual NPDES permit under 327 IAC 5-4-6(a)(4), 327 IAC 5-4-6(a)(5), or 327 IAC 15-2-9(b);
- (2) meets the general permit rule applicability requirements under 327 IAC 15-2-3;
- (3) does not have coverage under an individual MS4 permit; and
- (4) operates, maintains, or otherwise has responsibility for an MS4 conveyance within a designated MS4 area. (*Water Pollution Control Board; 327 IAC 15-13-2; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3577*)

### 327 IAC 15-13-3 MS4 area designation criteria

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2  
**Affected:** IC 13-18-4

Sec. 3. (a) An MS4 entity that meets one (1) of the

following is designated for permit coverage under this rule:

- (1) Located within, or contiguous to, a mapped 2000 United States Census Bureau urbanized area (UA) and is:
  - (A) a municipality, regardless of its United States Census Bureau population; or
  - (B) a university, college, military base, hospital, or correctional facility with a full-time equivalent enrollment, daily user population, or bed count occupancy (based on the most recent enrollment count or population data) greater than or equal to one thousand (1,000).
- (2) A county that contains a mapped UA. Only the portion of the county that contains the mapped UA, as delineated by political township or section, township, and range boundaries, must be regulated. If only a portion of the county contains a mapped UA, the MS4 entity may elect to regulate, to the extent of its authority, any additional portion of the county, as delineated by political township or section, township, and range boundaries, under this rule.
- (3) A documented significant contributor of pollutants to waters or a regulated MS4 area.
- (4) A municipality with a population density, according to 2000 United States Census Bureau data, of five hundred (500) people per square mile or greater and United States Census Bureau population of ten thousand (10,000) or more.
- (5) A municipality with a population density, according to 2000 United States Census Bureau data, of five hundred (500) people per square mile or greater, United States Census Bureau population greater than seven thousand (7,000) and less than ten thousand (10,000), and having a positive, ten (10) year population growth percentage greater than or equal to ten percent (10%).
- (6) A municipality with a population density, according to 2000 United States Census Bureau data, of five hundred (500) people per square mile or greater, United States Census Bureau population greater than seven thousand (7,000) and less than ten thousand (10,000), and having a university or college full-time equivalent enrollment, military base population, hospital bed count occupancy, or correctional facility daily user population (based on the most recent enrollment, count, or population data) that places the total population greater than or equal to ten thousand (10,000).
- (7) A university, college, military base, hospital, or correctional facility with a full-time equivalent enrollment, daily user population, or bed count occupancy greater than or equal to one thousand (1,000), located within a designated municipality, and having responsi-

bility for a storm water conveyance.

- (8) A conservancy district or homeowner's association with a population within their service area of greater than or equal to one thousand (1,000) people, located within a designated municipality or mapped UA, and having responsibility for a storm water conveyance.
- (9) A public or private storm water utility that serves one (1) or more of the MS4 entities designated under subdivisions (1) through (8).
  - (b) An MS4 entity not already designated under subsection (a) may be designated for permit coverage if its discharge is to a sensitive area or if other environmental programs are not adequately protecting water quality.
  - (c) Once an MS4 entity is designated under this section, it remains designated until the expiration of its permit unless any of the conditions for termination in section 20 of this rule are applicable or a waiver is granted in accordance with subsection (f).

(d) The department shall notify MS4 entities meeting the designation criteria of this section in writing. If the department does not notify an MS4 entity in writing, an MS4 entity meeting the designation criteria of this section must comply with the requirements of 327 IAC 15-13-9(e) [section 9(e) of this rule].

(e) A designated MS4 entity subject to this rule is also subject to the requirements of 327 IAC 15-2-9(b) and may be required to obtain an individual NPDES permit.

(f) A designated MS4 entity may request a waiver from permit coverage under this rule. Unless an MS4 entity's conveyance system is substantially contributing to the pollutant loadings of a regulated, physically interconnected MS4 entity or a department determination is made that requires storm water controls, MS4 entities within a mapped UA that have a conveyance system serving a population of less than one thousand (1,000) are conditionally granted a waiver. For all other MS4 entities, this waiver will only be granted under the following conditions:

- (1) The MS4 entity's conveyance system serves a population of less than ten thousand (10,000).
- (2) The MS4 entity's conveyance system is not contributing substantially to the pollutant loadings of a physically interconnected MS4 entity that is regulated by this rule.
- (3) An evaluation of all waters that receive a discharge from the MS4 entity's conveyance system has been conducted by the department or another approved entity.
- (4) For all evaluated waters, the department has determined that storm water controls are not needed based on wasteload allocations that are part of a United States Environmental Protection Agency approved or established total maximum daily load or equivalent

process and are reflective of pollutants identified as sources of impairment. and

(5) The department has determined that future discharges from the MS4 entity's conveyance system do not have the potential to result in exceedances of water quality standards, including impairment of designated uses or other significant water quality impacts, including habitat and biological impacts.

*(Water Pollution Control Board; 327 IAC 15-13-3; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3577)*

### **327 IAC 15-13-4 General permit boundary**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-18-4

Sec. 4. (a) This general permit covers Indiana.

(b) For each MS4 entity, the permit covers all storm water discharges from conveyance systems for which it has jurisdiction or, in the case of designated counties, the portion of the county jurisdictional area depicted in a mapped UA, as specified under section 3(a)(2) of this rule, unless appropriate written, enforceable, legal documentation has been obtained to allow another entity to have permit responsibilities for systems and areas within another entity's jurisdiction. *(Water Pollution Control Board; 327 IAC 15-13-4; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3578)*

### **327 IAC 15-13-5 Definitions**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-11-2; IC 13-18-4; IC 13-20-10; IC 14-32

Sec. 5. For purposes of this rule, the following definitions apply:

(1) "Best management practice" or "BMP" means any structural or nonstructural control measure utilized to improve the quality and, as appropriate, reduce the quantity of storm water run-off. The term includes schedules of activities, prohibitions of practice, treatment requirements, operation and maintenance procedures, use of containment facilities, land use planning, policy techniques, and other management practices.

(2) "Buffer strip" means an existing, variable width strip of vegetated land intended to protect water quality and terrestrial and aquatic habitat in an adjacent resource or area.

(3) "Canine park" means a designated public location where dogs are restricted and animal waste may accumulate. For the purposes of this rule, the term does not include kennels, municipal dog impoundments, or humane society buildings.

(4) "Class V injection well" means a type of well,

which typically has a depth greater than its largest surface dimension, emplaces fluids into the subsurface, and does not meet the definitions of Class I through Class IV wells as defined under 40 CFR 146.5. While the term includes the specific examples described in 40 CFR 144.81, septic systems that serve more than one (1) single-family dwelling or provide service for nondomestic waste, dug wells, bored wells, improved sinkholes, french drains, infiltration sumps, and infiltration galleries, it does not include surface impoundments, trenches, or ditches that are wider than they are deep.

(5) "Combined sewer" means a sewer that is designed, constructed, and used to receive and transport combined sewage.

(6) "Combined sewer operational plan" or "CSOOP" means a plan that contains the minimum technology controls applicable to, and requirements for operation and maintenance of, a combined sewer system:

(A) before;

(B) during; and

(C) upon completion of;

the implementation of a long term control plan.

(7) "Commissioner" refers to the commissioner of the department of environmental management.

(8) "Constructed wetland" means a manmade shallow pool that creates growing conditions suitable for wetland vegetation and is designed to maximize pollutant removal.

(9) "Contiguity" means an entity's proximity to a designated MS4 area in such a way that it allows for direct discharges of storm water run-off into the regulated MS4 conveyance.

(10) "Conveyance" means any structural process for transferring storm water between at least two (2) points. The term includes piping, ditches, swales, curbs, gutters, catch basins, channels, storm drains, and roadways.

(11) "Daily user population" means a population for an entity that is present at that location on a daily basis.

(12) "Dechlorinated swimming pool discharge" means chlorinated water that has either sat idle for seven (7) days following chlorination prior to discharge to the MS4 conveyance or, by analysis, does not contain detectable concentrations (less than five-hundredths (0.05) milligram per liter) of chlorinated residual.

(13) "Department" refers to the department of environmental management.

(14) "Detention basin" means a type of storage practice used to detain or slow storm water run-off and then release it through a positive outlet.

(15) "Disposal" means the:

(A) discharge;

- (B) deposit;
- (C) injection;
- (D) spilling;
- (E) leaking; or
- (F) placing;

of any solid waste or hazardous waste into or on any land or water so that the solid waste or hazardous waste, or any constituent of the waste, may enter the environment, be emitted into the air, or be discharged into any waters, including ground waters.

(16) "Dry well" means a type of infiltration practice that allows storm water run-off to flow directly into the ground via a bored or otherwise excavated opening in the ground surface.

(17) "Filter strip" means a type of vegetative practice used to filter storm water run-off through the use of planted or existing vegetation near disturbed or impervious surfaces.

(18) "Floatable" means any solid waste that, due to its physical characteristics, will float on the surface of water. For the purposes of this rule, the term does not include naturally occurring floatables, such as leaves or tree limbs.

(19) "Flood plain" means the area adjoining a river, stream, or lake that is inundated by the base flood as determined by 312 IAC 10.

(20) "Floodway" means the channel of a river or stream and those portions of the flood plain adjoining the channel that are reasonably required to efficiently carry and discharge the peak flow from the base flood as determined by 312 IAC 10.

(21) "Full-time equivalent enrollment" means a college or university enrollment of undergraduate students currently taking fifteen (15) credit hours of course work and graduate or professional students currently taking twelve (12) credit hours of course work. Each respective fifteen (15) or twelve (12) credit hours of course work equals one (1) full-time equivalent.

(22) "Garbage" means all putrescible animal solid, vegetable solid, and semisolid wastes resulting from the:

- (A) processing;
- (B) handling;
- (C) preparation;
- (D) cooking;
- (E) serving; or
- (F) consumption;

of food or food materials.

(23) "General permit rule boundary" means an area based upon existing geographic or political boundaries indicating the area within which an MS4 conveyance affected by this rule is located.

(24) "Grass swale" means a type of vegetative practice

used to filter storm water run-off via a vegetated, shallow-channel conveyance.

(25) "Ground water" means such accumulations of underground water, natural or artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon this state. The term does not include manmade underground storage or conveyance structures.

(26) "Household hazardous waste" or "HHW" means solid waste generated by households that:

- (A) is ignitable, as defined under 40 CFR 261.21;
- (B) is toxic, as defined under 40 CFR 261.24;
- (C) is reactive, as defined under 40 CFR 261.23;
- (D) is corrosive, as defined under 40 CFR 261.22; or
- (E) otherwise poses a threat to human health or the environment.

(27) "Hydrologic unit code" or "HUC" means a numeric United States Geological Survey code that corresponds to a watershed area. Each area also has a text description associated with the numeric code.

(28) "Illicit discharge" means any discharge to an MS4 conveyance that is not composed entirely of storm water, except naturally occurring floatables, such as leaves or tree limbs. Sources of illicit discharges include sanitary wastewater, septic tank effluent, car wash wastewater, oil disposal, radiator flushing disposal, laundry wastewater, roadway accident spillage, and household hazardous wastes.

(29) "Impervious surface" means any surface that prevents storm water to readily infiltrate into the soils.

(30) "Individual NPDES permit" means an NPDES permit issued to one (1) MS4 operator that contains requirements specific to that MS4 conveyance.

(31) "Infiltration basin or trench" means a type of infiltration practice used to filter storm water run-off into soils via the use of installed structures with porous material.

(32) "Infiltration gallery" means a type of infiltration practice used to filter storm water run-off into soils that utilizes one (1) or more vertical pipes leading to a horizontal, perforated pipe laid within a trench, often backfilled with gravel or some other permeable material.

(33) "Infiltration practices" means any structural BMP designed to facilitate the percolation of run-off through the soil to ground water. Examples include infiltration basins or trenches, dry wells, and porous pavement.

(34) "Initial receiving water" means a water that is the direct recipient of a discharge from an MS4 area after the discharge passes through another MS4 conveyance.

(35) "Larger common plan of development or sale" means a plan, undertaken by a single developer or a group of developers acting in concert, to offer lots for

sale or lease; where such land is contiguous, or is known, designed, purchased, or advertised as a common unit or by a common name, such land shall be presumed as being offered for sale or lease as part of a larger common plan. The term also includes phased construction by a single entity for its own use.

(36) “Legally binding agreement” means a written, enforceable legal document used to describe responsibilities between joint permittees or other entities.

(37) “Load allocation” means the portion of a receiving waterbody’s loading capacity that is attributed either to one (1) of its existing or future nonpoint sources of pollution or to natural background sources.

(38) “Long term control plan” or “LTCP” means a plan that is:

(A) consistent with the federal Combined Sewer Overflow Control Policy (59 FR 18688); and

(B) developed in accordance with the recommendations set forth in Combined Sewer Overflows Guidance for Long-Term Control Plan (EPA 832B95002).

(39) “Minimum control measure” or “MCM” refers to the following minimum measures required by this rule:

(A) Public education and outreach.

(B) Public participation and involvement.

(C) Illicit discharge detection and elimination.

(D) Construction site run-off control.

(E) Postconstruction run-off control.

(F) Pollution prevention and good housekeeping.

(40) “MS4 area” means a land area comprising one (1) or more places that receives coverage under one (1) NPDES storm water permit regulated by this rule or 327 IAC 5-4-6(a)(4) and 327 IAC 5-4-6(a)(5).

(41) “MS4 entity” means a public or private body that owns, operates, or maintains a storm water conveyance system, including a transportation agency operated by that body. The term can also include federal, state, city, town, county, district, association, or township public bodies and privately owned universities, colleges, or storm water utilities. For the purposes of this rule, the term does not include non-MS4 entity-owned shopping malls, office parks, apartment complexes, golf courses, churches, or hotels.

(42) “MS4 operator” means the person responsible for development, implementation, or enforcement of the MCMs for a designated MS4 area.

(43) “Municipal separate storm sewer system” or “MS4” means a conveyance or system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains, that is:

(A) owned or operated by a:

(i) federal, state, city, town, county, district, associ-

ation, or other public body (created by or pursuant to state law) having jurisdiction over storm water, including special districts under state law such as a sewer district, flood control district, or drainage district, or similar entity, or a designated and approved management agency under Section 208 of the Clean Water Act (33 U.S.C. 1288) that discharges into waters of the state; or

(ii) privately owned storm water utility, hospital, university, or college having jurisdiction over storm water that discharges into waters of the state;

(B) designed or used for collecting or conveying storm water;

(C) not a combined sewer; and

(D) not part of a publicly owned treatment works (POTW) as defined at 40 CFR 122.2.

(44) “Municipal, state, federal, or institutional refueling area” means an operating gasoline or diesel fueling area whose primary function is to provide fuel to either municipal, state, federal, or institutional equipment or vehicles.

(45) “Mutual drain” means a drainage system that:

(A) is located on two (2) or more tracts of land that are under different ownership;

(B) was established by the mutual consent of all the owners; and

(C) was not established under or made subject to any drainage statute.

(46) “Nonpoint source” means a source of water pollution that does not meet the definition of point source. The term includes in-place pollutants, direct wet and dry deposition, ground water inflow, and overland run-off.

(47) “Notice of deficiency letter” or “NOD letter” means a written notification from the department indicating an MS4 entity’s deficiencies in its NOI letter or SWQMP submittals.

(48) “Notice of intent letter” or “NOI letter” means a written notification indicating an MS4 entity’s intention to comply with the terms of this rule in lieu of applying for an individual NPDES permit and includes information as required under sections 6 and 9 of this rule. It is the application for obtaining permit coverage under this rule.

(49) “Notice of sufficiency letter” or “NOS letter” means a written notification from the department indicating that an MS4 entity has sufficiently provided the required information in its NOI letter or SWQMP submittals.

(50) “Notice of termination letter” or “NOT letter” means a written notification from the department indicating that an MS4 entity has met the conditions to terminate its permit coverage under this rule.

(51) "Open space" means any land area devoid of any disturbed or impervious surfaces created by industrial, commercial, residential, agricultural, or other manmade activities.

(52) "Outfall" means a point source discharge via a conveyance of storm water run-off into a water of the state.

(53) "Outfall scouring" means the deterioration of a stream bed or lake bed from an outfall discharge to an extent that the excessive settling of solid material results and aquatic habitat is diminished.

(54) "Point source" means any discernible, confined, and discrete conveyance, including a pipe, ditch, channel, tunnel, conduit, well, or discrete fissure.

(55) "Pollutant of concern" means any pollutant that has been documented via analytical data as a cause of impairment in any waterbody, or to another MS4, to which the MS4 discharges.

(56) "Porous pavement" means a type of infiltration practice to improve the quality and reduce the quantity of storm water run-off via the use of manmade, pervious pavement which allows run-off to percolate through the pavement and into underlying soils.

(57) "Private drain" means a drainage system that:

(A) is located on land owned by one (1) person or by two (2) or more persons jointly; and

(B) was not established under or made subject to any drainage statute.

(58) "Programmatic indicator" means any data collected by an MS4 entity that is used to indicate implementation of one (1) or more minimum control measures.

(59) "Qualified professional" means an individual who is trained and experienced in storm water treatment techniques and related fields as may be demonstrated by state registration, professional certification, experience, or completion of coursework that enable the individual to make sound, professional judgments regarding storm water control or treatment and monitoring, pollutant fate and transport, and drainage planning.

(60) "Rain garden" means a vegetative practice used to alter impervious surfaces, such as roofs, into pervious surfaces for absorption and treatment of rainfall.

(61) "Receiving stream" or "receiving water" means a waterbody that receives a discharge from an outfall. The term does not include private drains, unnamed conveyances, retention and detention basins, or constructed wetlands used as treatment.

(62) "Redevelopment" means alterations of a property that change a site or building in such a way that there is disturbance of one (1) acre or more of land. The term does not include such activities as exterior remodeling.

(63) "Responsible individual" means the person responsible for development, implementation, or enforcement of the MCMs for a designated MS4 entity.

(64) "Retail gasoline outlet" means an operating gasoline or diesel fueling facility whose primary function is the resale of fuels. The term applies to facilities that create five thousand (5,000) or more square feet of impervious surfaces or generate an average daily traffic count of one hundred (100) vehicles per one thousand (1,000) square feet of land area.

(65) "Retention basin" means a type of storage practice, that has no positive outlet, used to retain storm water run-off for an indefinite amount of time. Run-off from this type of basin is removed only by infiltration through a porous bottom or by evaporation.

(66) "Riparian habitat" means a land area adjacent to a waterbody that supports animal and plant life associated with that waterbody.

(67) "Riparian zone" means a land area adjacent to a waterbody that is directly associated with that waterbody.

(68) "Sand" means mineral material with a size range between two (2) and one-sixteenth ( $1/16$ ) millimeter diameter.

(69) "Sedimentation" means the settling and accumulation of unconsolidated material carried by storm water run-off.

(70) "Sensitive area" means a waterbody identified as needing priority protection or remediation based on:

(A) having threatened or endangered species or their habitat;

(B) usage as a public surface water supply intake;

(C) usage for full body contact recreation, such as bathing beaches; or

(D) exceptional use classification as found in 327 IAC 2-1-11(b), outstanding state resource water classification as found in 327 IAC 2-1-2(3) and 327 IAC 2-1.5-19(b).

(71) "Significant contributor of pollutants" means an MS4 entity or industrial facility that contributes pollutants into an MS4 conveyance in such a quantity or quality and to such a degree that it impacts the receiving MS4 operator's ability to comply with applicable state or federal law.

(72) "Soil and water conservation district" or "SWCD" means a political subdivision established under IC 14-32.

(73) "Solid waste" means any garbage, refuse, sludge for a waste treatment plant, sludge from a water supply treatment plant, sludge from an air pollution control facility, or other discarded material, including solid, liquid, semisolid, or contained gaseous material

resulting from industrial, commercial, mining, or agricultural operations or from community activities. The term does not include:

(A) solid or dissolved material in:

(i) domestic sewage; or

(ii) irrigation return flows or industrial discharges; that are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act Amendments (33 U.S.C. 1342);

(B) source, special nuclear, or byproduct material (as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.);

(C) manures or crop residues returned to the soil at the point of generation as fertilizers or soil conditioners as part of a total farm operation; or

(D) vegetative matter at composting facilities registered under IC 13-20-10.

(74) "Spill" means the unexpected, unintended, abnormal, or unapproved dumping, leakage, drainage, seepage, discharge, or other loss of petroleum, hazardous substances, extremely hazardous substances, or objectionable substances. The term does not include releases to impervious surfaces when the substance does not migrate off the surface or penetrate the surface and enter the soil.

(75) "Standard Industrial Classification code" or "SIC code" means the four (4) digit code applicable to a particular industrial activity in accordance with the Standard Industrial Classification Manual published by the Office of Management and Budget of the Executive Office of the President of the United States.

(76) "Storage practices" means any structural BMP intended to store or detain storm water and slowly release it to receiving waters or drainage systems. The term includes detention and retention basins.

(77) "Storm drain marking" means any marking procedure that identifies a storm sewer inlet as draining directly to a receiving waterbody so as to avoid dumping pollutants. The procedures can include painted or cast messages and adhesive decals.

(78) "Storm water" means water resulting from rain, melting or melted snow, hail, or sleet.

(79) "Storm water quality management plan" or "SWQMP" means a comprehensive written document that addresses storm water run-off quality within an MS4 area. The SWQMP is divided into three (3) different submittal parts as follows:

(A) Part A-Initial Application.

(B) Part B-Baseline Characterization and Report.

(C) Part C-Program Implementation.

(80) "Stream reach characterization and evaluation report" or "SRCER" means a written report that characterizes and evaluates the pollutant sources on

receiving waters from a combined sewer system discharge.

(81) "Total maximum daily load" or "TMDL" means the sum of the daily individual wasteload allocations for point sources and load allocations for nonpoint sources and natural background minus the sum of a specified margin of safety and any capacity reserved for growth. A TMDL sets and allocates the maximum daily amount of a pollutant that may be introduced into a waterbody and still assure attainment and maintenance of water quality standards.

(82) "Traffic phasing plan" means a written plan that addresses the installation of appropriate pollution prevention practices that is directly related to the land disturbance associated with infrastructure constructed to reroute vehicular traffic within an active construction zone. The term does not include detours that are directed away from the active construction area.

(83) "Urbanized area" or "UA" means a land area comprising one (1) or more places that together have a residential population of at least fifty thousand (50,000) and an overall population density of at least five hundred (500) people per square mile.

(84) "Vegetative practices" means any nonstructural or structural BMP that, with optimal design and good soil conditions, utilizes various forms of vegetation to enhance pollutant removal, maintain and improve natural site hydrology, promote healthier habitats, and increase aesthetic appeal. Examples include grass swales, filter strips, buffer strips, constructed wetlands, and rain gardens.

(85) "Waste transfer station" means a place where solid wastes are segregated for additional off-site processing or disposal.

(86) "Wasteload allocation" means the portion of a receiving stream's loading capacity that is allocated to one (1) of its existing or future point sources of pollution.

(87) "Waterbody" means any accumulation of water, surface or underground, natural or artificial, including rivers, streams, creeks, ditches, swales, lakes, ponds, marshes, wetlands, and ground water. The term does not include any storage or treatment structures.

(88) "Watercourse" means the path taken by flowing surface water.

(89) "Watershed" means an area of land from which water drains to a common point.

(90) "Waters" means:

(A) the accumulations of water, surface and underground, natural and artificial, public and private; or

(B) a part of the accumulations of water; that are wholly or partially within, flow through, or border upon Indiana. The term does not include a

private pond, or an off-stream pond, reservoir, or facility built for reduction or control of pollution or cooling of water before discharge, unless the discharge from the pond, reservoir, or facility causes or threatens to cause water pollution.

(91) "Wellhead protection area" has the meaning set forth at 327 IAC 8-4.1-1(27).

(*Water Pollution Control Board; 327 IAC 15-13-5; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3578*)

### **327 IAC 15-13-6 Notice of intent letter requirements**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-18-4

Sec. 6. (a) Unless one (1) application is submitted for multiple MS4 entities, each MS4 entity shall submit an NOI letter with the following information, which will serve as the permit application:

- (1) Contact information required under subsection (b).
- (2) List of all known receiving waters or, if the discharge is to another MS4, the name of the MS4 entity and the initial receiving water. For the purposes of the NOI letter submittal, receiving waters include, at a minimum, waters listed on the United States Geological Survey National Hydrogeologic Database or, if no waters are listed on this data base within a given MS4 area, the primary receiving water for the MS4 area drainage. As additional receiving waters are identified, the information must be provided in the corresponding annual report required in section 18 of this rule.
- (3) Copy of the completed SWQMP-Part A: Initial Application certification submittal and checklist form.
- (4) Proof of publication in the newspaper with the greatest circulation in the affected MS4 area. The notice must provide a listing of all entities intended to be covered under the permit. This statement must be included in the public notice, "(MS4 entity name and address) intends to discharge storm water into the (text name and numeric code of all 14-digit Hydrologic Unit Code area) watershed(s), and is submitting a Notice of Intent letter to notify the Indiana Department of Environmental Management of our intent to comply with the requirements under 327 IAC 15-13 to discharge storm water run-off associated with municipal separate storm sewer systems."
- (5) Certification, by completing and signing Appendix A of the NOI letter, that any applicable, legally binding agreements between MS4 area entities have been obtained concerning individual responsibilities for implementation of this rule.
- (b) The contact information required under subsections

(a)(1) and (c)(1) must include the following:

- (1) Name of MS4 operator, primary contact individual (if different from the MS4 operator), or responsible individual for each MS4 entity.
- (2) Title of the MS4 operator, primary contact individual (if different from the MS4 operator), or responsible individual or individuals.
- (3) MS4 entity represented by the MS4 operator, primary contact individual (if different from the MS4 operator), or responsible individual or individuals.
- (4) Mailing (and, if different, the physical) address of the MS4 operator, primary contact individual (if different from the MS4 operator), or responsible individual or individuals.
- (5) Telephone and facsimile number of the MS4 operator, primary contact individual (if different from the MS4 operator), or responsible individual or individuals.
- (6) E-mail address (if available) of MS4 operator, primary contact individual (if different from the MS4 operator), or responsible individual or individuals.
- (c) The SWQMP-Part A: Initial Application required under subsection (a)(3) must contain the following:
  - (1) Written listing of the MS4 entities within an MS4 area covered by the NOI letter submittal. The listing must provide the name of each MS4 entity, a responsible individual for each MS4 entity, and contact information for each MS4 entity.
  - (2) Written schedule which, at a minimum, adheres to the compliance schedule in section 11 of this rule.
  - (3) Written proposed or estimated budget allocation for the MS4 area's storm water program with a summary of identified funding sources. When multiple MS4 entities are applying under a single NOI letter, the budget allocation must be, at a minimum, separated by MS4 entity.
  - (d) Multiple MS4 entities within an MS4 area may submit a single NOI letter provided they comply with the submittal requirements of this section. Coverage under a single NOI letter will only be allowed if all the MS4 entities seeking coverage consolidate, and provide, the required information in sections 7, 8, and 18 of this rule as single submittals, and the information is submitted to the department by the MS4 operator designated in subsection (b). MS4 operators may utilize materials from existing local or state programs, or partner with an existing individual MS4 permittee, if all parties agree to coordinate responsibilities in accordance with subsection (a)(5).
  - (e) Multiple MS4 entities within an MS4 area may submit a separate NOI letter corresponding to each entity and still share responsibilities for implementation of one (1) or more of the requirements in this rule provided they

comply with the submittal requirements of this section and coordinate responsibilities in accordance with subsection (a)(5).

(f) Where multiple MS4 entities submit one (1) or more NOI letters based on a watershed delineation and the created MS4 area contains undesignated MS4 entities, the undesignated MS4 entities shall not be subject to the provisions of this rule unless the applicability requirements of section 3 of this rule apply.

(g) Where the MS4 operator changes, or where a new operator is added after the submittal of an NOI letter, a new NOI letter must be completed and submitted in accordance with 327 IAC 15-2-8 and sections 6 and 9 of this rule. If no other conditions change except for the name of the MS4 operator, a written letter describing the name change and a statement that no other conditions, including those conditions in the SWQMP-Part A: Initial Application and legal agreements, have changed will be sufficient notification to the department.

(h) An MS4 entity within an MS4 area that does not have the legal authority or other regulatory mechanisms to implement one (1) or more of the six (6) minimum control measures required under this rule shall either obtain the legal authority or other regulatory mechanism, or work with a neighboring regulated MS4 entity, via legally binding agreements, to share responsibilities.

(i) All documents and information required by this section must meet the signatory requirements of 327 IAC 15-4-3(g).

(j) A qualified professional and the MS4 operator shall certify, with the stated paragraph found in 327 IAC 15-4-3(g)(3), a submitted SWQMP-Part A: Initial Application checklist form.

(k) The department shall review initially submitted NOI letters and SWQMP-Part A: Initial Applications for adequacy and shall assign each NOI letter an NPDES permit number. Either a written NOD letter requesting additional information or NOS letter containing the assigned NPDES permit number shall be returned to the MS4 operator within ninety (90) days of the NOI letter submittal. If the MS4 operator does not receive either a NOD letter or NOS letter within ninety (90) days of the NOI letter submittal, the NOI letter and SWQMP-Part A: Initial Application will be considered adequate.

(l) Responses to NOD letters shall be made by the recipient within thirty (30) days of the date on the NOD letter.

(m) Forms for the NOI letter, SWQMP, annual report, and required certifications shall be provided by the department. (*Water Pollution Control Board; 327 IAC 15-13-6; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3583*)

**327 IAC 15-13-7 SWQMP-Part B: baseline characterization and report**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-18-4

Sec. 7. (a) An MS4 operator shall characterize the water quality of all known waters that receive storm water outfall discharges within the MS4 area. This characterization may begin with the receiving waters identified in the NOI letter submittal, and, as receiving waters are identified, the characterization shall be expanded to those additional receiving waters and the subsequent information presented in the corresponding annual report required under section 18 of this rule. The water quality characterization must utilize existing or new information that may describe the chemical, biological, or physical condition of the MS4 area water quality. If monitoring is conducted as part of the characterization, the monitoring of receiving waters shall be either at, or in proximity to, all known, or representative, storm water outfall discharges. After the baseline characterization data is collected, the MS4 operator shall evaluate the data in the baseline characterization to determine which identified areas or specific discharge points are in need of additional water quality measures. This baseline characterization must include the following:

(1) An investigation of land usage and assessment of structural and nonstructural storm water BMP locations and conclusions, such as key observation or monitoring locations in the MS4 conveyances, derived from the land usage investigation.

(2) The identification of known sensitive areas, such as public swimming areas, surface drinking water intakes, waters containing threatened or endangered species and their habitat, or state outstanding resource and exceptional use waters. The identified sensitive areas should be given the highest priority for the selection of BMPs and the prohibition of new or significantly increased MS4 discharges.

(3) A review of known existing and available monitoring data of the MS4 area receiving waters, including, as applicable, data that can be correlated from SRCERs.

(4) The identification of areas having a reasonable potential for or actually causing storm water quality problems based on the available and relevant chemical, biological, physical, land use, and complaint data.

(5) Assessment results of BMP locations and, as appropriate, the structural condition of the BMP related to the BMP's effectiveness in improving storm water quality. As appropriate, this assessment should include recommendations for placement and implementation of additional BMPs within the MS4 area.

(b) An SWQMP-Part B: Baseline Characterization and

Report addressing the requirements of subsection (a) must be developed and submitted to the department at the address specified in section 9(b) of this rule. The SWQMP-Part B: Baseline Characterization and Report and completed corresponding certification form must be submitted no later than one hundred eighty (180) days from the date the initial NOI letter submittal was received by the department or the expiration date of the previous five (5) year permit term.

(c) The department shall review the SWQMP-Part B: Baseline Characterization and Report for adequacy, and a written NOS letter or NOD letter shall be issued to the MS4 operator. If no letter is issued within ninety (90) days of submittal, the SWQMP-Part B: Baseline Characterization and Report is deemed sufficient.

(d) Responses to NOD letters shall be made by the recipient within thirty (30) days of the date on the NOD letter.

(e) Ongoing data collection related to the SWQMP-Part B: Baseline Characterization and Report must be submitted to the department with the corresponding annual report.

(f) A qualified professional and the MS4 operator shall certify, with the stated paragraph found in 327 IAC 15-4-3(g)(3), a submitted SWQMP-Part B: Baseline Characterization and Report checklist form. (*Water Pollution Control Board; 327 IAC 15-13-7; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3584*)

### **327 IAC 15-13-8 Submittal of an SWQMP-Part C: program implementation**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-18-4

Sec. 8. (a) An MS4 operator shall develop and implement an SWQMP-Part C: Program Implementation. The SWQMP-Part C: Program Implementation must contain the following:

- (1) An initial evaluation of the storm water program for the MS4 area. This evaluation should include information on all known structural and nonstructural storm water BMPs utilized.
- (2) A detailed program description for each minimum control measure (MCM) referenced in sections 12 through 17 of this rule.
- (3) A timetable for program implementation milestones, which includes milestones for each of the MCMs referenced in sections 12 through 17 of this rule, and applicable SWQMP-Part B: Baseline Characterization and Report conclusions (BMP recommendations, additional protective measures for sensitive areas, and correcting identified water quality problems).

(4) As appropriate, a schedule for ongoing characterization of the receiving waters either at, or in proximity to, outfall locations identified in the SWQMP-Part B: Baseline Characterization and Report to evaluate BMP effectiveness and receiving water quality.

(5) A narrative and mapped description of the MS4 area boundaries that indicate responsible MS4 entity areas for each MCM. The narrative description must include the specific sectional or, as appropriate, the street name boundaries of the MS4 area.

(6) An estimate of the linear feet of MS4 conveyances within the MS4 area, segregated by MS4 type, for example, by open ditch or pipe.

(7) A summary of which structural BMP types will be allowed in new development and redevelopment for the MS4 area.

(8) A summary on storm water structural BMP selection criteria and, where appropriate, associated performance standards that must be met after installation to indicate BMP effectiveness.

(9) A summary of the current storm water budget, expected or actual funding source, and a projection of the budget for each year within the five (5) year permit term.

(10) A summary of measurable goals for, at a minimum, each MCM referenced in sections 12 through 17 of this rule. These measurable goals shall demonstrate results that relate to an environmental benefit.

(11) Completed certification forms, as appropriate, for each MCM. The certification forms only need to be completed and submitted during the initial five (5) year permit term.

(12) The identification of programmatic indicators. Programmatic indicators, grouped by corresponding MCM, must include those listed in subsection (b) that apply to the MS4 operator. Other relevant indicators may be used in place of those listed in subsection (b). If an indicator listed in subsection (b) is not applicable to the operator, or if an other relevant indicator is used, the operator shall provide rationale for the nonidentification or substitution. Programmatic indicators do not need to be fully implemented at the time of the SWQMP-Part C: Program Implementation submittal. Updated data for each of these indicators must be submitted in each annual report.

(b) The programmatic indicators must address the following:

- (1) Number or percentage of citizens, segregated by type of constituent as referenced in section 12(a) of this rule, that have an awareness of storm water quality issues.
- (2) Number and description of meetings, training sessions, and events conducted to involve citizen

constituents in the storm water program.

(3) Number or percentage of citizen constituents that participate in storm water quality improvement programs.

(4) Number and location of storm drains marked or cast, segregated by marking method.

(5) Estimated or actual linear feet or percentage of MS4 mapped and indicated on an MS4 area map.

(6) Number and location of MS4 area outfalls mapped.

(7) Number and location of MS4 area outfalls screened for illicit discharges.

(8) Number and location of illicit discharges detected.

(9) Number and location of illicit discharges eliminated.

(10) Number of and estimated or actual amount of material, segregated by type, collected from HHW collections in the MS4 area.

(11) Number and location of constituent drop-off centers for automotive fluid recycling.

(12) Number or percentage of constituents that participate in the HHW collections.

(13) Number of construction sites obtaining an MS4 entity-issued storm water run-off permit in the MS4 area.

(14) Number of construction sites inspected.

(15) Number and type of enforcement actions taken against construction site operators.

(16) Number of, and associated construction site name and location for, public informational requests received.

(17) Number, type, and location of structural BMPs installed.

(18) Number, type, and location of structural BMPs inspected.

(19) Number, type, and location of structural BMPs maintained or improved to function properly.

(20) Type and location of nonstructural BMPs utilized.

(21) Estimated or actual acreage or square footage of open space preserved and mapped in the MS4 area, if applicable.

(22) Estimated or actual acreage or square footage of pervious and impervious surfaces mapped in the MS4 area, if applicable.

(23) Number and location of new retail gasoline outlets or municipal, state, federal, or institutional refueling areas, or outlets or refueling areas that replaced existing tank systems that have installed storm water BMPs.

(24) Number and location of MS4 entity facilities that have containment for accidental releases of stored polluting materials.

(25) Estimated or actual acreage or square footage, amount, and location where pesticides and fertilizers are applied by a regulated MS4 entity to places where

storm water can be exposed within the MS4 area.

(26) Estimated or actual linear feet or percentage and location of unvegetated swales and ditches that have an appropriately-sized vegetated filter strip.

(27) Estimated or actual linear feet or percentage and location of MS4 conveyances cleaned or repaired.

(28) Estimated or actual linear feet or percentage and location of roadside shoulders and ditches stabilized, if applicable.

(29) Number and location of storm water outfall areas remediated from scouring conditions, if applicable.

(30) Number and location of deicing salt and sand storage areas covered or otherwise improved to minimize storm water exposure.

(31) Estimated or actual amount, in tons, of salt and sand used for snow and ice control.

(32) Estimated or actual amount of material by weight collected from catch basin, trash rack, or other structural BMP cleaning.

(33) Estimated or actual amount of material by weight collected from street sweeping, if utilized.

(34) If applicable, number or percentage and location of canine parks sited at least one hundred fifty (150) feet away from a surface waterbody.

(c) An SWQMP-Part C: Program Implementation and completed corresponding certification form must be submitted to the department within three hundred sixty-five (365) days from the date the initial NOI letter submittal was received by the department or the expiration date of the previous five (5) year permit term.

(d) The department shall review submitted SWQMP-Part C: Program Implementations for adequacy. Either a written NOD letter requesting additional information or NOS letter shall be sent to the MS4 operator within ninety (90) days of the SWQMP-Part C: Program Implementation submittal. If no letter is issued within ninety (90) days of submittal, the plan is deemed sufficient.

(e) Responses to NOD letters must be made by the recipient within thirty (30) days of the date on the NOD letter.

(f) As conditions or allowed technologies change, the SWQMP-Part C: Program Implementation must be updated. When updates are created, relevant sections of the SWQMP-Part C: Program Implementation containing the updates must be submitted to the commissioner as an attachment to the corresponding annual report required under section 18 of this rule.

(g) A qualified professional and the MS4 operator shall certify, with the stated paragraph found in 327 IAC 15-4-3(g)(3), a submitted SWQMP-Part C: Program Implementation checklist form. (*Water Pollution Control Board; 327 IAC 15-13-8; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3585*)

### 327 IAC 15-13-9 Submittal of an NOI letter and other documents

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-18-4; IC 15-4-3

Sec. 9. (a) All information required under section 6 of this rule must be submitted to the commissioner. An MS4 entity that meets the designation criteria under section 3 of this rule shall submit the NOI letter, SWQMP-Part A: Initial Application, and other required documentation no later than ninety (90) days from the effective date of this rule unless:

- (1) written permission for a later date has been granted by the commissioner; or
- (2) the MS4 entity was not notified in writing at least one hundred eighty (180) days prior to the effective date of this rule.

(b) A termination request, the NOI letter, Parts A, B, and C of the SWQMP, and any other required information must be submitted to:

Indiana Department of Environmental Management  
Office of Water Quality, Urban Wet Weather Section  
Rule 13 Storm Water Coordinator  
100 North Senate Avenue, Room 1255  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015.

(c) The permit and the compliance schedules of this rule become effective upon receipt of the initial NOI letter by the department.

(d) The commissioner may deny coverage under this rule and require submittal of an application for an individual NPDES permit based on a review of the NOI letter or other information. This review may consider the location and size of the discharge, the quantity and nature of the pollutants discharged, and other relevant factors. Before completing the review, the department will inform the MS4 entity as to what information is being used for the review and provide the MS4 entity an opportunity to respond if the MS4 entity believes the information used is inaccurate or incomplete.

(e) An MS4 entity that either was not notified in writing at least one hundred eighty (180) days prior to the effective date of this rule or meets the designation criteria of section 3 of this rule after the effective date of this rule due to changing conditions or new facility construction shall submit the required information under section 6 of this rule within three hundred sixty-five (365) days of either:

- (1) the date of receivership on the written notification;
- (2) becoming aware of the relevant changed conditions; or
- (3) upon the initiation of facility operations;

unless written permission for a later date has been granted by the commissioner.

(f) Any person who knowingly makes any false statement, representation, or certification in any document submitted or required to be maintained under this rule is subject to 327 IAC 15-4-3(i). (*Water Pollution Control Board; 327 IAC 15-13-9; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3587*)

### 327 IAC 15-13-10 MS4 permit implementation; coordination with total maximum daily load allocations

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-18-4

Sec. 10. If a total maximum daily load (TMDL) is approved for any waterbody into which an MS4 conveyance discharges, the MS4 operator must review and appropriately modify Parts B and C of their SWQMP if the TMDL includes requirements for control of storm water discharges under the jurisdiction of the MS4 operator. (*Water Pollution Control Board; 327 IAC 15-13-10; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3587*)

### 327 IAC 15-13-11 Compliance schedule

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-18-4

Sec. 11. An MS4 operator shall comply with the following schedule for implementation of this rule:

Rule Requirement	Compliance Deadline (from initial NOI letter receivership date)
Storm Water Quality Management Plan:	Components throughout term of permit
Part A: Initial Application submitted	With NOI letter
Part B: Baseline Characterization and Report submitted	180 days
Part C: Program Implementation submitted	1 year
Public Education and Outreach MCM implementation:	Throughout term of permit
Public education and outreach program development certification submitted	1 year
Public Involvement/Participation MCM implementation:	Throughout term of permit
Public involvement and participation program development	1 year

certification submitted	
Illicit Discharge Detection/ Elimination MCM implementation:	Throughout term of permit
Illicit discharge plan and regulatory mechanism certification submitted	1 year
25% of storm water outfalls systems mapped	Each year after 1 year
All known storm water outfall systems, with pipe diameters 12 inches or greater or open ditches with 2 feet or larger bottom width, mapped	5 years
Construction Site Run-Off Control MCM implementation:	Throughout term of permit
Construction site program plan and regulatory mechanism certification submitted	1 year
Postconstruction Run-Off Control MCM implementation:	Throughout term of permit
Operational and maintenance plan certification submitted	2 years
Postconstruction program plan and regulatory mechanism certification submitted	2 years
Municipal operations pollution prevention and good housekeeping MCM implementation:	Throughout term of permit
Operations pollution prevention program development certification submitted	1 year
If an MS4 operator is unable to meet a compliance deadline under this section the operator shall submit a written request and justification for extending the deadline. The request must be submitted to the department no later than thirty (30) days prior to the due date. ( <i>Water Pollution Control Board; 327 IAC 15-13-11; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3587</i> )	

**327 IAC 15-13-12 Storm water quality management plan public education and outreach MCM**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-18-4

Sec. 12. (a) An MS4 operator shall develop an SWQMP that includes methods and measurable goals that will be used to inform residents, visitors, public service employees, commercial and industrial facilities, and construction site personnel within the MS4 area

about the impacts polluted storm water run-off can have on water quality and ways they can minimize their impact on storm water quality. The MS4 operator shall ensure, via documentation, that a reasonable attempt was made to reach all constituents within the MS4 area to meet this measure.

(b) MS4 operators are encouraged to utilize existing programs and outreach materials to meet this measure. MS4 operators shall identify and implement an informational program with educational materials for constituents. A certification form shall be completed and submitted to the department once the program has been developed and implemented or three hundred sixty-five (365) days from the date the initial NOI letter submittal was received by the department, whichever is earlier. In subsequent permit terms, the certification form does not need to be completed and submitted. At a minimum, every five (5) years the program shall be reviewed for adequacy and accuracy and updated as necessary.

(c) MS4 operators shall develop measurable goals for this MCM. An initial assessment of the MS4 area constituents must be conducted to determine initial constituent knowledge and practices as they relate to storm water quality. To comply with this measure, specific target outreach or reduction goal percentages and timetables must be identified. As applicable or, if not applicable, then appropriately justified, goals must address relevant targeted audience improvement in disposal practices, cast storm drain cover installations, school curricula or Web site implementation, outreach to every population sector, and educational material distribution.

(d) In combined sewer system municipalities designated under this rule, the current LTCP shall be reviewed, and any necessary language changes to ensure consistency with the SWQMP shall be included in the plan to ensure that this MCM requirement is met. (*Water Pollution Control Board; 327 IAC 15-13-12; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3588*)

**327 IAC 15-13-13 Storm water quality management plan public participation and involvement MCM**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-18-4

Sec. 13. (a) The MS4 operator shall develop an SWQMP that includes provisions to allow opportunities for constituents within the MS4 area to participate in the storm water management program development and implementation. An MS4 operator shall ensure, via

documented efforts, that sufficient opportunities were allotted to involve all constituents interested in participating in the program process to meet this measure. Correctional facilities will not be required to implement the public participation and involvement MCM.

(b) An MS4 entity shall comply with applicable public notice requirements. An MS4 operator shall identify and implement a public participation and involvement program. A certification form shall be completed and submitted to the department once the program has been developed and implemented or three hundred sixty-five (365) days from the date the initial NOI letter submittal was received by the department, whichever is earlier. In subsequent permit terms, the certification form does not need to be completed and submitted. At a minimum, every five (5) years the program shall be reviewed for adequacy and accuracy and updated as necessary.

(c) An MS4 operator shall develop measurable goals for this MCM. An initial assessment of MS4 area constituents must be conducted to identify interested individuals for participation in the MS4 area storm water program. To comply with this measure, specific outreach and reduction goal percentages and timetables must be identified. As applicable or, if not applicable, then appropriately justified, goals must address relevant community participation in citizen panels, community clean-ups, citizen watch groups and drain marking projects, and public meeting notification.

(d) In combined sewer system municipalities designated under this rule, the current LTCP shall be reviewed, and any necessary language changes to ensure consistency with the SWQMP shall be included in the plan to ensure that this MCM requirement is met. (*Water Pollution Control Board; 327 IAC 15-13-13; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3588*)

**327 IAC 15-13-14 Storm water quality management plan illicit discharge detection and elimination MCM**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-18-4

Sec. 14. (a) An MS4 operator shall develop an SWQMP that includes a commitment to develop and implement a strategy to detect and eliminate illicit discharges to the MS4 conveyance.

(b) An MS4 operator shall develop a storm sewer system map showing the location of all outfalls and MS4 conveyances in the particular MS4 area under the MS4 operator's control and the names and locations of all waters that receive discharges from those outfalls. A map

developed under this subsection must meet the following:

(1) At a minimum, longitude and latitude for mapped outfall locations must be done in decimal degrees, or, if a global positioning system is utilized, mapping-grade accuracy data shall be collected, where an accuracy discrepancy is less than five (5) meters.

(2) The mapping requirement must be developed as follows:

(A) All known outfall conveyance systems with a pipe diameter of twelve (12) inches or larger and open ditches with a two (2) foot or larger bottom width must be mapped within the first five (5) year permit term according to the following:

(i) After the second year of permit coverage, mapping must depict the location of outfall conveyance systems for at least twenty-five percent (25%) of the MS4 conveyances within the MS4 area.

(ii) For each additional year of the initial permit term, mapping must depict at least an additional twenty-five percent (25%) of the MS4 conveyances.

(B) Subsequent permit terms will require that all remaining outfall conveyance systems are mapped.

(3) The mapping requirements in subdivision (2) do not include private or mutual drains, yard swales that are not maintained by a regulated MS4 entity, or curbs and gutters.

(c) Through an ordinance or other regulatory mechanism, an MS4 operator shall prohibit illicit discharges into MS4 conveyances and establish appropriate enforcement procedures and actions.

(d) An MS4 operator shall develop a plan to detect, address, and eliminate illicit discharges, including illegal dumping, into the MS4 conveyance. This plan need not address the following categories of nonstorm water discharges or flows unless the MS4 operator identifies them as significant contributors of pollutants to its MS4 conveyance:

- (1) Water line flushing.
- (2) Landscape irrigation.
- (3) Diverted stream flows.
- (4) Rising ground waters.
- (5) Uncontaminated ground water infiltration.
- (6) Uncontaminated pumped ground water.
- (7) Discharges from potable water sources.
- (8) Foundation drains.
- (9) Air conditioning condensation.
- (10) Irrigation water.
- (11) Springs.
- (12) Water from crawl space pumps.
- (13) Footing drains.
- (14) Lawn watering.

- (15) Individual residential car washing.
- (16) Flows from riparian habitats and wetlands.
- (17) Dechlorinated swimming pool discharges.
- (18) Street wash water.
- (19) Discharges from firefighting activities.

(e) The plan developed under subsection (d) must, at a minimum, locate problem areas via dry weather screening or other means, determine the source, remove or otherwise correct illicit connections, and document the actions taken. The dry weather screening or other means must utilize a field testing kit, or similar method, to analyze for pollutants of concern and other parameters, such as pH, conductivity, or nitrogen-ammonia, used to identify possible pollutant sources. All storm water outfalls in the regulated MS4 area under the MS4 operator's control must be screened for illicit discharges. The screening may be initiated gradually throughout successive five (5) year permit cycles. If the gradual approach is utilized, all storm water outfalls with a pipe diameter of twelve (12) inches or larger and open ditches with a two (2) foot or larger bottom width must be screened in the first five (5) year permit term. Subsequent permit terms will require that all remaining outfalls be screened.

(f) The plan developed under subsection (d) must identify all active industrial facilities within the MS4 area that discharge into an MS4 conveyance. This identification shall include the facility name, address, telephone number, and Standard Industrial Classification (SIC) code. Updated information regarding active industrial facilities must be submitted in each annual report.

(g) A certification form must be completed and submitted to the department once the plan has been developed and implemented or three hundred sixty-five (365) days from the date the initial NOI letter submittal was received by the department, whichever is earlier. In subsequent permit terms, the certification form does not need to be completed and submitted. At a minimum, every five (5) years the program shall be reviewed for adequacy and accuracy and updated as necessary.

(h) An MS4 operator shall educate public employees, businesses, and the general public about the hazards associated with illicit discharges and improper disposal of waste. This educational effort shall include the following:

- (1) Informational brochures and guidances for specific audiences and school curricula.
- (2) Publicizing and facilitating public reporting of illicit discharges and spills.
  - (i) An MS4 operator shall initiate, or coordinate existing, recycling programs in the regulated MS4 area for commonly dumped wastes, such as motor oil, anti-freeze, and pesticides.
  - (j) An MS4 operator shall develop measurable goals

for this MCM. To comply with this measure, specific outreach and reduction percentages and timetables must be identified. At a minimum, goals must address relevant collection system mapping, regulatory mechanism implementation, employee training, household hazardous waste programs, illicit discharge detection, and illicit discharge elimination.

(k) In combined sewer system municipalities designated under this rule, the current CSOOP and LTCP must be reviewed, and any necessary language changes to ensure consistency with the SWQMP must be included in the plans to ensure that this MCM requirement is met. (*Water Pollution Control Board; 327 IAC 15-13-14; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3589*)

**327 IAC 15-13-15 Storm water quality management plan construction site storm water run-off control MCM**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-18-4

Sec. 15. (a) An MS4 operator shall develop an SWQMP that includes a commitment to develop, implement, manage, and enforce an erosion and sediment control program for construction activities that disturb one (1) or more acres of land within the MS4 area.

(b) Through an ordinance or other regulatory mechanism, the MS4 operator shall establish a construction program that controls polluted run-off from construction activities with a land disturbance greater than or equal to one (1) acre, or disturbances of less than one (1) acre of land that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one (1) or more acres of land. Except for state permitting process references and submittal deadlines of construction plans and permit applications in 327 IAC 15-5, this ordinance or other regulatory mechanism must contain, at a minimum, the requirements of 327 IAC 15-5. The MS4 operator may establish a permitting process and timetable for plan and application submittals that is different than that established under 327 IAC 15-5. The permitting process must include a requirement for the construction project site owner to submit a copy of the application directly to the department. A certification form shall be completed and submitted to the department once the ordinance or other regulatory mechanism is developed and a program has been implemented or three hundred sixty-five (365) days from the date the initial NOI letter submittal was received by the department, whichever is earlier. In subsequent permit terms, the certification form does not need to be completed and

submitted. At a minimum, every five (5) years the regulatory mechanism and program shall be reviewed for adequacy and accuracy and updated as necessary. Until the MS4 operator program is implemented, NOI letters and construction plans for construction activities within the MS4 area will be submitted in accordance with 327 IAC 15-5-5 and [327 IAC] 15-5-6 to the department and the local SWCD or department of natural resources, division of soil conservation, respectively.

(c) If the MS4 operator has not entered into a written agreement with the local SWCD to review and approve construction site plans or conduct construction site inspections, the MS4 operator shall provide an opportunity to the local SWCD to provide comments and recommendations to the MS4 operator on individual projects. This process may be accomplished by the MS4 operator establishing a local plan review and comment procedure, a project technical review committee, or other mechanism to solicit the input of the local SWCD.

(d) Failure of the SWCD to respond within a predetermined time period should not delay final action of the MS4 operator to approve plans or projects.

(e) In addition to any procedural requirements for submittal to the MS4 operator or MS4 designated entity, an NOI letter required under 327 IAC 15-5 must be submitted to the department for any projects within the MS4 area.

(f) The MS4 operator, or a designated MS4 entity, shall meet the following:

(1) Develop requirements for the implementation of appropriate BMPs on construction sites to control sediment, erosion, and other waste.

(2) Review and approve the construction plans submitted by the construction site operator before construction activities commence.

(3) Develop procedures for site inspection and enforcement to ensure that BMPs are properly installed.

(4) Establish written procedures to identify priority sites for inspection and enforcement based on, at a minimum, the nature and extent of the construction activity, topography, and the characteristics of soils and receiving water quality.

(5) Develop procedures for the receipt and consideration of public inquiries, concerns, and information submitted regarding local construction activities.

(6) Implement, at a minimum, a tracking process in which submitted public information, both written and verbal, is documented and then given to appropriate staff for follow-up.

(g) MS4 area personnel responsible for plan review, inspection, and enforcement of construction activities shall receive, at a minimum, annual training addressing such topics as appropriate control measures, inspection

protocol, and enforcement procedures.

(h) An MS4 operator shall develop measurable goals for this MCM. To comply with this measure, specific outreach, compliance, and implementation goal percentages and timetables must be identified. At a minimum, goals must address relevant regulatory mechanism implementation, public informational request procedure implementation, site inspection procedure implementation, and construction site operator compliance improvement.

(i) For those construction activities operated by the MS4 operator or MS4 municipalities within the MS4 area, construction plans must be submitted to the local SWCD, the department of natural resources, division of soil conservation, or other entity designated by the department for review and approval. If the MS4 operator does not receive either a notice of deficiency or an approval within thirty-five (35) days of the submittal, the plan will be considered adequate. After a one (1) year period of compliance, the MS4 operator or the designated MS4 entity need not submit the plans and may review MS4-operated project construction plans internally with the written authorization of the department of natural resources, division of soil conservation.

(j) In addition to the requirements of 327 IAC 15-5-6.5, the MS4-operated project construction plans must include a traffic phasing plan for those projects that have the potential to alter vehicular traffic routes.

(k) In addition to the requirements of 327 IAC 15-5-6.5(a)(7), the MS4-operated project storm water pollution prevention plan must address the following areas outside of right-of-ways:

(1) Utility relocation areas.

(2) Material hauling and transportation routes/roads.

(3) Borrow pits.

(4) Temporary staging and material stockpile areas.

(5) Temporary disposal areas for waste materials.

(*Water Pollution Control Board; 327 IAC 15-13-15; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3590*)

**327 IAC 15-13-16 Storm water quality management plan postconstruction storm water run-off control MCM**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-18-4

Sec. 16. (a) An MS4 operator shall develop an SWQMP that includes a commitment to develop, implement, manage, and enforce a program to address discharges of postconstruction storm water run-off from new development and redevelopment areas that disturb

one (1) or more acre [*sic., acres*] of land or disturbances of less than one (1) acre of land that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one (1) or more acres of land within the MS4 area.

(b) Through the use of an ordinance or other regulatory means, an MS4 operator shall implement planning procedures to promote improved water quality. These planning procedures must include, at a minimum, the postconstruction requirements of 327 IAC 15-5-6.5(a)(8). Where appropriate, and to the extent of the MS4 operator's authority, the procedures may also include the following:

- (1) Buffer strip and riparian zone preservation.
- (2) Filter strip creation.
- (3) Minimization of land disturbance and surface imperviousness.
- (4) Minimization of directly connected impervious areas.
- (5) Maximization of open space.
- (6) Directing the community's physical growth away from sensitive areas and toward areas that can support it without compromising water quality.

A certification form that combines the completed requirements of this subsection and subsection (e) shall be completed and submitted to the department once the ordinance or other regulatory means has been developed and a program has been implemented or seven hundred thirty (730) days from the date the initial NOI letter submittal was received by the department, whichever is earlier. In subsequent permit terms, the certification form does not need to be completed and submitted. At a minimum, every five (5) years the program shall be reviewed for adequacy and accuracy and updated as necessary.

(c) Where appropriate, an MS4 operator shall use any combination of storage, infiltration, filtering, or vegetative practices to reduce the impact of pollutants in storm water run-off on receiving waters. In addition to the combination of practices, the following requirements shall be utilized:

- (1) Infiltration practices will not be allowed in well-head protection areas.
- (2) Discharges from an MS4 area will not be allowed directly into sinkholes or fractured bedrock without treatment that results in the discharge meeting Indiana ground water quality standards as referenced in 327 IAC 2-11.
- (3) Any storm water practice that is a Class V injection well must ensure that the discharge from such practices meets Indiana ground water quality standards as referenced in 327 IAC 2-11.
- (4) As site conditions allow, the rate at which water

flows through the MS4 conveyances shall be regulated to reduce outfall scouring and stream bank erosion.

(5) As site conditions allow, a vegetated filter strip of appropriate width shall be maintained along unvegetated swales and ditches.

(6) New retail gasoline outlets, new municipal, state, federal, or institutional refueling areas, or outlets and refueling areas that replace their existing tank systems shall be required by MS4 ordinance or other regulatory means to design and install appropriate practices to reduce lead, copper, zinc, and polyaromatic hydrocarbons in storm water run-off.

(d) MS4 area personnel responsible for plan review, inspection, and enforcement of postconstruction BMPs shall receive, at a minimum, annual training addressing such topics as appropriate control measures, inspection protocol, and enforcement procedures.

(e) An MS4 operator shall develop and implement a written operational and maintenance plan for all storm water structural BMPs. A certification form that combines the completed requirements of this subsection and subsection (b) shall be completed and submitted to the department once the plan has been developed and implemented or seven hundred thirty (730) days from the date the initial NOI letter submittal was received by the department, whichever is earlier. In subsequent permit terms, the certification form does not need to be completed and submitted. At a minimum, every five (5) years the program shall be reviewed for adequacy and accuracy and updated as necessary.

(f) An MS4 operator shall develop measurable goals for this measure. To comply with this measure, specific reduction percentages and timetables must be identified. At a minimum, goals must address relevant regulatory mechanism implementation, planning and structural BMP strategies, new impervious surface reduction, and discharge quality improvement. (*Water Pollution Control Board; 327 IAC 15-13-16; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3591*)

**327 IAC 15-13-17 Storm water quality management plan municipal operations pollution prevention and good housekeeping MCM**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-18-4

Sec. 17. (a) An MS4 operator shall develop an SWQMP that includes a commitment to develop and implement a program to prevent or reduce pollutant run-off from municipal operations within the MS4 area.

(b) To the extent of their authority, an MS4 operator shall develop and implement a program to ensure that existing municipal, state, or federal operations are performed in ways that will reduce contamination of storm water discharges. A certification form must be completed and submitted to the department once the program has been developed and implemented or three hundred sixty-five (365) days from the date the initial NOI letter submittal was received by the department, whichever is earlier. In subsequent permit terms, the certification form does not need to be completed and submitted. At a minimum, every five (5) years the program shall be reviewed for adequacy and accuracy and updated as necessary. This program must include the following:

(1) Written documentation of maintenance activities, maintenance schedules, and long term inspection procedures for BMPs to reduce floatables and other pollutants discharged from the separate storm sewers. Maintenance activities shall include, as appropriate, the following:

- (A) Periodic litter pick up as defined in the MS4 area SWQMP.
- (B) Periodic BMP structure cleaning as defined in the MS4 area SWQMP.
- (C) Periodic pavement sweeping as defined in the MS4 area SWQMP.
- (D) Roadside shoulder and ditch stabilization.
- (E) Planting and proper care of roadside vegetation.
- (F) Remediation of outfall scouring conditions.

(2) Controls for reducing or eliminating the discharge of pollutants from operational areas, including roads, parking lots, maintenance and storage yards, and waste transfer stations. Appropriate controls shall include the following:

- (A) Covering or otherwise reducing the potential for polluted storm water run-off from deicing salt or sand storage piles.
- (B) Establishing designated snow disposal areas that have minimal potential for pollutant run-off impact on MS4 area receiving waters.
- (C) Providing facilities for containment of any accidental losses of concentrated solutions, acids, alkalis, salts, oils, or other polluting materials.
- (D) Standard operating procedures for spill prevention and clean-up during fueling operations.
- (E) BMPs for vehicular maintenance areas.
- (F) Prohibition of equipment or vehicle wash waters and concrete or asphalt hydrodemolition waste waters into storm water run-off except under the allowance of an appropriate NPDES wastewater permit.
- (G) Minimization of pesticide and fertilizer use.

Pesticides shall be used, applied, handled, stored, mixed, loaded, transported, and disposed of via office of the Indiana state chemist's guidance requirements.

(H) Proper disposal of animal waste. If applicable, it is recommended that canine parks be sited at least one hundred fifty (150) feet away from a surface waterbody.

(3) Written procedures for the proper disposal of waste or materials removed from separate storm sewer systems and operational areas. All materials removed from separate storm sewer systems and operational areas, including dredge spoil, accumulated sediments, floatables, and debris, must be:

- (A) reused or recycled; or
- (B) disposed of in accordance with applicable solid waste disposal regulations.

(4) Written documentation that new flood management projects are assessed for their impacts on water quality and existing flood management projects are examined for incorporation of additional water quality protection devices or practices.

(5) Written documentation that appropriate MS4 entity employees have been properly trained, with periodic refresher sessions, on topics such as proper disposal of hazardous wastes, vegetative waste handling, fertilizer and pesticide application, and the function of implemented BMPs.

(c) An MS4 operator shall develop measurable goals for this MCM. To comply with this measure, specific reduction percentages and timetables must be identified. As applicable or, if not applicable, then appropriately justified, goals must address relevant catch basin cleaning and street sweeping procedures, employee training, recycling program implementation, pesticide, fertilizer and sand or salt usage reductions, floatables reduction, and maintenance schedule for BMPs.

(d) In combined sewer system municipalities designated under this rule, the current CSOOP and LTCP will need to be reviewed, and any necessary language changes to ensure consistency with the SWQMP must be included in the plans to ensure that this MCM requirement is met. (*Water Pollution Control Board; 327 IAC 15-13-17; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3592*)

### **327 IAC 15-13-18 Reporting requirements**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-18-4

Sec. 18. (a) An MS4 operator regulated under this rule shall submit an annual report to the department the following information:

- (1) Progress towards development, implementation, and enforcement of all MCMs, including updated programmatic indicator data.
- (2) Summary of complaints received and follow-up investigation results related to storm water quality issues.
- (3) Updated measurable goals.
- (4) Storm water BMPs installed or initiated.
- (5) Follow-up or additional water quality characterization.
- (6) Updated active industrial facilities list.
- (7) Implementation problems encountered, including BMP changes due to ineffectiveness or infeasibility.
- (8) Funding sources and expenditures.
- (9) Changes to MS4 area boundaries, including land areas added to the MS4 area via annexation or other similar means.
- (10) Identified storm water quality improvement projects.
- (11) Updated receiving water information.

The initial annual report shall be postmarked no later than three hundred sixty-five (365) days from the date the SWQMP-Part C: Program Implementation submittal was received by the department. Subsequent report submittals during the first five (5) year permit term shall be provided no later than three hundred sixty-five (365) days from the previous report in years three (3), four (4), and five (5). In subsequent permit terms, reports must be submitted in years two (2) and four (4).

(b) An MS4 operator shall submit a monthly construction site project summary to the department containing a listing of all project names associated with section 15 of this rule, the project address, project duration, and an indication of enforcement actions undertaken. If no projects occur within a given month, a report does not need to be submitted. Reports must be postmarked no later than the last day of the following month. The commissioner may develop criteria for an alternative acceptable timetable for submission of this summary.

(c) The summary required under subsection (b) must address those projects for which there has been:

- (1) an NOI letter submittal, or its equivalent, to the MS4 entity; or
- (2) a Notice of Termination letter, or its equivalent, processed by the MS4 entity.

(d) An MS4 operator shall certify by signature on the annual report form that information provided is true and accurate. (*Water Pollution Control Board; 327 IAC 15-13-18; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3593*)

### **327 IAC 15-13-19 Permit duration**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-18-4

Sec. 19. (a) The permits under this rule are valid for five (5) years from the date the initial NOI letter was received by the department. Renewal application for the permit is required at least sixty (60) days prior to the expiration date. Coverage under renewal NOI letters will begin on the date of expiration from the previous five (5) year permit term.

(b) If MS4 entity conditions change within an MS4 area, written notification of the changes must be submitted to the commissioner.

(c) For a complete renewal application to be sufficient, a new NOI letter and SWQMP-Part A: Initial Application must be submitted in accordance with sections 6 and 9 of this rule.

(d) Permits may be reissued on a watershed basis to take into account surface water quality monitoring strategies and sampling data analyses for individual drainage areas.

(e) Subsequent permits will require the MS4 operator to maintain and, where possible, improve their performance in implementing the six (6) MCMs. (*Water Pollution Control Board; 327 IAC 15-13-19; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3594*)

### **327 IAC 15-13-20 Permit termination**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-18-4

Sec. 20. (a) An MS4 entity may request the department to terminate permit coverage under this rule if:

- (1) based on physical changes in the MS4 area, the permit is no longer needed;
- (2) based on a lack of cooperation between MS4 entities, a new general permit NOI letter is needed; or
- (3) based on documented reductions in population, population density, occupancy, or enrollment that result in numbers below minimum designation criteria and a request based on this subdivision will only be considered once a permit under this rule has expired.

(b) The department may terminate permit coverage under this rule and require an MS4 entity to apply for an individual permit if one (1) of the six (6) cases referenced in 327 IAC 15-2-9(b) is applicable. (*Water Pollution Control Board; 327 IAC 15-13-20; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3594*)

### **327 IAC 15-13-21 Standard conditions**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-14-10; IC 13-18-4; IC 13-30

Sec. 21. In addition to the conditions set forth in this rule, the standard conditions for the NPDES general

permit rule under 327 IAC 15-4 shall apply also to this rule. (*Water Pollution Control Board; 327 IAC 15-13-21; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3594*)

### **327 IAC 15-13-22 Inspection and enforcement**

**Authority:** IC 13-14-8; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2

**Affected:** IC 13-14-10; IC 13-18-4; IC 13-30

Sec. 22. (a) The commissioner may inspect an MS4 entity regulated under this rule at any time. Any documentation required in sections 6 through 20 of this rule or related to implementation of this rule must be available at the physical address corresponding to the MS4 operator or the primary contact individual for review by the commissioner during normal business hours.

(b) At a minimum, records shall be established and maintained at the address referenced in subsection (a) for the five (5) years of the permit term. The five (5) year period will be extended:

(1) automatically during the course of any unresolved litigation regarding the discharge of pollutants by the MS4 operator, or other MS4 entity regulated by the MS4 area permit, or regarding promulgated effluent guidelines applicable to the MS4 area; or

(2) as requested by the regional administrator of the United States Environmental Protection Agency or the commissioner.

(c) The commissioner may request data to facilitate the identification or quantification of pollutants that may be released to the environment from an MS4 conveyance or to determine effectiveness of the MCMs.

(d) The commissioner, or an authorized representative, upon providing appropriate credentials, may inspect an MS4 entity regulated under this rule at any time. As it pertains to sections 15 and 16 of this rule, the department of natural resources, division of soil conservation staff, or their designated representative, upon providing appropriate credentials, may inspect an MS4 entity regulated under this rule at any time. Record keeping and reporting requirements for sections 15 and 16 of this rule shall conform to 327 IAC 15-5.

(e) All persons or MS4 entities responsible for the MS4 conveyances shall be responsible for complying with the SWQMP for the MS4 area and the provisions of this rule. Any person or MS4 entity causing or contributing to a violation of any provisions of this rule shall be subject to IC 13-30 and IC 13-14-10.

(f) All projects within a regulated MS4 area meeting the applicability requirements of 327 IAC 15-5 are subject to inspection and enforcement by the department or their designated representative for violations associated with 327 IAC 15-5. (*Water Pollution Control*

*Board; 327 IAC 15-13-22; filed Jul 7, 2003, 2:15 p.m.: 26 IR 3594*)

## **ARTICLE 16. CONFINED FEEDING OPERATIONS**

- Rule 1. General Provisions
- Rule 2. Definitions
- Rule 3. Performance Standards for All Confined Feeding Operations
- Rule 4. General Approval Conditions
- Rule 5. Alternate Design or Compliance Approach; Innovative Technology
- Rule 6. Existing Confined Feeding Operations
- Rule 7. Application and Approval Process for Confined Feeding Operations
- Rule 8. Manure Handling and Storage; Site, Design, and Construction Requirements
- Rule 9. Manure Handling and Storage; Operational Requirements
- Rule 10. Land Application of Manure
- Rule 11. Closure of Manure Storage Structures
- Rule 12. Exiting the Confined Feeding Approval Program

### **Rule 1. General Provisions**

- 327 IAC 16-1-1 Applicability
- 327 IAC 16-1-2 Compliance schedule
- 327 IAC 16-1-3 Appeal of decisions
- 327 IAC 16-1-4 Federal and state requirements

### **327 IAC 16-1-1 Applicability**

**Authority:** IC 13-14-8-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-18; IC 13-22

Sec. 1. (a) This article applies to the following:

- (1) Any person who owns, designs, constructs, operates, or closes a confined feeding operation.
- (2) Any person responsible for application of manure onto the land in Indiana that is generated by a confined feeding operation.

(b) This article does not apply to a person who applies manure from a confined feeding operation in amounts of less than ten (10) cubic yards or two thousand (2,000) gallons in a calendar year. (*Water Pollution Control Board; 327 IAC 16-1-1; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1883*)

### **327 IAC 16-1-2 Compliance schedule**

**Authority:** IC 13-14-8-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-18; IC 13-22

Sec. 2. (a) Compliance with all sections of this article shall be on the effective date of this rule, except that the owner/operator of a confined feeding operation shall develop an emergency spill response plan in accordance with 327 IAC 16-9-4(a) prior to the collection and storage of any manure.

(b) All confined feeding operation approvals issued prior to the effective date of this rule shall expire five (5) years from the date of the submission of the most recently submitted manure management plan unless an application for renewal has been submitted in accordance with 327 IAC 16-7-4. Approval renewals shall be issued for a fixed term not to exceed five (5) years. (*Water Pollution Control Board; 327 IAC 16-1-2; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1883*)

### 327 IAC 16-1-3 Appeal of decisions

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 4-21.5; IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 3. A decision by the commissioner to approve, deny, revoke, amend, require an approval, or impose additional requirements under this article is appealable under IC 4-21.5. Information on appeal rights shall be provided with the documentation of the commissioner's decision. (*Water Pollution Control Board; 327 IAC 16-1-3; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1883*)

### 327 IAC 16-1-4 Federal and state requirements

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 4-21.5; IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 4. An approval under this article is intended to satisfy the environmental requirements under the Clean Water Act. The commissioner is not limited from requiring a NPDES permit under 327 IAC [*sic., this title*]. (*Water Pollution Control Board; 327 IAC 16-1-4; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1883*)

### Rule 2. Definitions

327 IAC 16-2-1	"Agronomic rate" defined
327 IAC 16-2-2	"Bedrock" defined
327 IAC 16-2-3	"Commissioner" defined
327 IAC 16-2-4	"Confined feeding" defined
327 IAC 16-2-5	"Confined feeding operation" defined
327 IAC 16-2-6	"Construction" defined
327 IAC 16-2-7	"Contaminated run-off" defined
327 IAC 16-2-8	"Department" defined
327 IAC 16-2-9	"Discharge" defined
327 IAC 16-2-10	"Drainage inlet" defined
327 IAC 16-2-11	"Feedlot" defined
327 IAC 16-2-12	"Filter strip" defined
327 IAC 16-2-13	"Flood plain" defined
327 IAC 16-2-14	"Floodway" defined
327 IAC 16-2-15	"Gradient barrier" defined
327 IAC 16-2-16	"Ground water" defined
327 IAC 16-2-17	"Highly erodible land" defined
327 IAC 16-2-18	"Historic site" defined
327 IAC 16-2-19	"Incorporation" defined
327 IAC 16-2-20	"Injection" defined

327 IAC 16-2-21	"Karst terrain" defined
327 IAC 16-2-22	"Manure" defined
327 IAC 16-2-23	"Manure application" defined
327 IAC 16-2-24	"Manure storage structure" defined
327 IAC 16-2-25	"Manure transfer system" defined
327 IAC 16-2-26	"Manure transfer vehicle" defined
327 IAC 16-2-27	"New manure storage structure" defined
327 IAC 16-2-28	"Operating record" defined
327 IAC 16-2-29	"Owner/operator" defined
327 IAC 16-2-30	"Potentially available nitrogen" defined
327 IAC 16-2-31	"Public water supply surface intake structure" defined
327 IAC 16-2-32	"Public water supply well" defined
327 IAC 16-2-33	"Registered professional engineer" defined
327 IAC 16-2-34	"Sensitive area" defined
327 IAC 16-2-35	"Spill" defined
327 IAC 16-2-36	"Spray irrigation" defined
327 IAC 16-2-37	"Staging" defined
327 IAC 16-2-38	"Surface application" defined
327 IAC 16-2-39	"Surface water" defined
327 IAC 16-2-40	"Uncovered" defined
327 IAC 16-2-41	"Vegetative management system" defined
327 IAC 16-2-42	"Waste liquid" defined
327 IAC 16-2-43	"Waste liquid storage system" defined
327 IAC 16-2-44	"Waste management system" defined
327 IAC 16-2-45	"Waters" defined

### 327 IAC 16-2-1 "Agronomic rate" defined

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 1. "Agronomic rate" means a rate of application of manure to the land based on:

- (1) the nutrient content of the manure to be applied;
- (2) the fertility level of the soil;
- (3) the nutrient needs of the current or planned crops;
- (4) the nutrient holding capacity of the soil; and
- (5) additional sources of nutrients, including legume credits, process wastewater, biosolids, or commercial fertilizer.

(*Water Pollution Control Board; 327 IAC 16-2-1; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1883*)

### 327 IAC 16-2-2 "Bedrock" defined

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 2. "Bedrock" means cemented or consolidated earth materials exposed on the earth's surface or underlying unconsolidated earth materials. (*Water Pollution Control Board; 327 IAC 16-2-2; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1883*)

### 327 IAC 16-2-3 "Commissioner" defined

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2-35; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 3. “Commissioner”, as defined in IC 13-11-2-35, refers to the commissioner of the department of environmental management. (*Water Pollution Control Board; 327 IAC 16-2-3; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1884*)

### **327 IAC 16-2-4 “Confined feeding” defined**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2-29; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 4. (a) “Confined feeding”, as defined in IC 13-11-2-39, means the confined feeding of animals for food, fur, or pleasure purposes in lots, pens, ponds, sheds, or buildings where:

- (1) animals are confined, fed, and maintained for at least forty-five (45) days during any twelve (12) month period; and
- (2) ground cover or vegetation is not sustained over at least fifty percent (50%) of the animal confinement area.

(b) The term does not include the following:

- (1) A livestock market:
  - (A) where animals are assembled from at least two
  - (2) sources to be publicly auctioned or privately sold on a commission basis; and
  - (B) that is under state or federal supervision.
- (2) A livestock sale barn or auction market where animals are kept for not more than ten (10) days.

(*Water Pollution Control Board; 327 IAC 16-2-4; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1884*)

### **327 IAC 16-2-5 “Confined feeding operation” defined**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 4-21.5; IC 13-11-2-40; IC 13-14; IC 13-15; IC 13-18-10; IC 13-30

Sec. 5. “Confined feeding operation”, as defined in IC 13-11-2-40, means any:

- (1) confined feeding of at least:
  - (A) three hundred (300) cattle;
  - (B) six hundred (600) swine or sheep; or
  - (C) thirty thousand (30,000) fowl;
- (2) animal feeding operation electing to be subject to IC 13-18-10; or
- (3) animal feeding operation that causes a violation of:
  - (A) water pollution control laws;
  - (B) any rules of the water pollution control board; or
  - (C) IC 13-18-10.

A determination by the department under this subdivision is appealable under IC 4-21.5. (*Water Pollution Control Board; 327 IAC 16-2-5; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1884*)

### **327 IAC 16-2-6 “Construction” defined**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2-40.8; IC 13-14; IC 13-15; IC 13-18-10; IC 13-30

Sec. 6. “Construction”, as defined in IC 13-11-2-40.8, for purposes of IC 13-18-10, means the fabrication, erection, or installation of a facility or manure control equipment at the location where the facility or manure control equipment is intended to be used. The term does not include the following:

- (1) The dismantling of existing equipment and control devices.
- (2) The ordering of equipment and control devices.
- (3) Off-site fabrication.
- (4) Site preparation.

(*Water Pollution Control Board; 327 IAC 16-2-6; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1884*)

### **327 IAC 16-2-7 “Contaminated run-off” defined**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 7. “Contaminated run-off” means any precipitation or surface water that has come into contact with any liquid or solid animal excreta or any used bedding, litter, or waste liquid at the confined feeding operation. (*Water Pollution Control Board; 327 IAC 16-2-7; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1884*)

### **327 IAC 16-2-8 “Department” defined**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2-51; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 8. “Department”, as defined in IC 13-11-2-51, refers to the department of environmental management. (*Water Pollution Control Board; 327 IAC 16-2-8; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1884*)

### **327 IAC 16-2-9 “Discharge” defined**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 9. “Discharge”, for purposes of this article, means any addition of any pollutant, or combination of pollutants, into any waters of the state from a point source. The term includes, without limitation, an addition of a pollutant into any waters of the state from the following:

- (1) Surface run-off that is collected or channeled by human activity.
- (2) Discharges through pipes, sewers, or other conveyances, including natural channels that do not lead to treatment works.

(*Water Pollution Control Board; 327 IAC 16-2-9; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1884*)

**327 IAC 16-2-10 “Drainage inlet” defined****Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 10. “Drainage inlet” means any surficial opening to an underground tile drainage system that drains to waters of the state. For purposes of this article, “drainage inlet” includes water and sediment control basins. (*Water Pollution Control Board; 327 IAC 16-2-10; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1885*)

**327 IAC 16-2-11 “Feedlot” defined****Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 11. “Feedlot” means an outside lot or pen used for confined feeding, including areas that may be covered, partially covered, or uncovered. (*Water Pollution Control Board; 327 IAC 16-2-11; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1885*)

**327 IAC 16-2-12 “Filter strip” defined****Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 12. “Filter strip” means a relatively uniform and maintained vegetated area used for collecting sediment and cleansing run-off. (*Water Pollution Control Board; 327 IAC 16-2-12; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1885*)

**327 IAC 16-2-13 “Flood plain” defined****Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 13. “Flood plain” means any area adjoining a river, stream, or lake that has been or may be covered by a one hundred (100) year flood. (*Water Pollution Control Board; 327 IAC 16-2-13; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1885*)

**327 IAC 16-2-14 “Floodway” defined****Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 14. “Floodway” means the channel of a river or stream and those portions of the flood plain adjoining the channel that are reasonably required to efficiently carry and discharge the peak flood flow of a one hundred (100) year flood as determined by 310 IAC 6. (*Water Pollution Control Board; 327 IAC 16-2-14; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1885*)

**327 IAC 16-2-15 “Gradient barrier” defined****Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 15. “Gradient barrier” means a structure or feature that prevents run-off from entering waters of the state. (*Water Pollution Control Board; 327 IAC 16-2-15; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1885*)

**327 IAC 16-2-16 “Ground water” defined****Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 16. “Ground water” means such accumulations of underground water, natural or artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon this state, but excluding manmade underground storage or conveyance structures. (*Water Pollution Control Board; 327 IAC 16-2-16; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1885*)

**327 IAC 16-2-17 “Highly erodible land” defined****Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 17. “Highly erodible land” means land that has a high potential to erode based on site-specific characteristics, such as slope length and steepness, rainfall, run-off, wind, soil type, and soil conditions. (*Water Pollution Control Board; 327 IAC 16-2-17; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1885*)

**327 IAC 16-2-18 “Historic site” defined****Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30; IC 14-8-2-125

Sec. 18. “Historic site”, as defined in IC 14-8-2-125, means a site that is important to the general, archaeological, agricultural, economic, social, political, architectural, industrial, or cultural history of Indiana. The term includes adjacent property that is necessary for the preservation or restoration of the site. (*Water Pollution Control Board; 327 IAC 16-2-18; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1885*)

**327 IAC 16-2-19 “Incorporation” defined****Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 19. “Incorporation” means the mixing of liquid or solid manure, with the surface soil using standard agricultural practices, such as tillage. (*Water Pollution Control Board; 327 IAC 16-2-19; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1885*)

**327 IAC 16-2-20 “Injection” defined****Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 20. "Injection" means the placement of liquid manure beneath the surface of the soil in the crop root zone using equipment specifically designed for this purpose. (*Water Pollution Control Board; 327 IAC 16-2-20; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1885*)

**327 IAC 16-2-21 "Karst terrain" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 21. "Karst terrain" means an area where karst topography, including the characteristic surface and subterranean features, has developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terrains include the following:

- (1) Sinkholes.
- (2) Sinking streams.
- (3) Caves.
- (4) Large springs.
- (5) Blind valleys.

(*Water Pollution Control Board; 327 IAC 16-2-21; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1885*)

**327 IAC 16-2-22 "Manure" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 22. "Manure" means any liquid or solid animal excreta or any used bedding, litter, waste liquid, or contaminated run-off. (*Water Pollution Control Board; 327 IAC 16-2-22; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1886*)

**327 IAC 16-2-23 "Manure application" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 23. "Manure application" means the placement of liquid or solid manure by:

- (1) spraying or spreading onto the land surface;
- (2) injection below the land surface; or
- (3) incorporation into the soil.

(*Water Pollution Control Board; 327 IAC 16-2-23; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1886*)

**327 IAC 16-2-24 "Manure storage structure" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 24. "Manure storage structure" means any pad, pit, pond, lagoon, tank, building, or manure containment area used to store or treat manure, including any portions

of buildings used specifically for manure storage or treatment. (*Water Pollution Control Board; 327 IAC 16-2-24; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1886*)

**327 IAC 16-2-25 "Manure transfer system" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 25. "Manure transfer system" means any pipes, lift stations, pumps, or other stationary devices used for the transfer of manure. (*Water Pollution Control Board; 327 IAC 16-2-25; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1886*)

**327 IAC 16-2-26 "Manure transfer vehicle" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 26. "Manure transfer vehicle" means a vehicle, tank, or wagon used to move manure. (*Water Pollution Control Board; 327 IAC 16-2-26; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1886*)

**327 IAC 16-2-27 "New manure storage structure" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 27. "New manure storage structure" means any manure storage structure:

- (1) for which an application for approval was received by the commissioner on or after the effective date of this rule; and
- (2) that is approved after the effective date of this rule.

(*Water Pollution Control Board; 327 IAC 16-2-27; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1886*)

**327 IAC 16-2-28 "Operating record" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 28. "Operating record" means the written record of the confined feeding operation activities required by this article and kept by the owner/operator. (*Water Pollution Control Board; 327 IAC 16-2-28; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1886*)

**327 IAC 16-2-29 "Owner/operator" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 29. (a) "Owner/operator", for purposes of this rule, means the person:

- (1) that owns the waste management systems at the

confined feeding operation;

(2) that owns the livestock at the confined feeding operation and that applies for or has received an approval pursuant to this article; or

(3) in direct or responsible charge or control of one (1) or more confined feeding operations or land application activity.

(b) The term includes contractors responsible for activities described in 327 IAC 16-1-1(a) at the confined feeding operation. (*Water Pollution Control Board; 327 IAC 16-2-29; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1886*)

### **327 IAC 16-2-30 “Potentially available nitrogen” defined**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 30. “Potentially available nitrogen” means the nitrogen that could be realistically taken up by a crop during one (1) growing season. Potentially available nitrogen is usually calculated as the sum total of:

- (1) ammonium nitrogen;
- (2) nitrate nitrogen; and
- (3) the percent organic nitrogen that will mineralize in one (1) growing season.

(*Water Pollution Control Board; 327 IAC 16-2-30; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1886*)

### **327 IAC 16-2-31 “Public water supply surface intake structure” defined**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 31. “Public water supply surface intake structure” means any structure used for the purpose of providing water through a public water supply system. (*Water Pollution Control Board; 327 IAC 16-2-31; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1887*)

### **327 IAC 16-2-32 “Public water supply well” defined**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 32. “Public water supply well” means any well that provides water to the public through a water distribution system that:

- (1) serves at least twenty-five (25) persons per day for:
  - (A) drinking;
  - (B) domestic use; or
  - (C) other purposes; or
- (2) has at least fifteen (15) service connections.

(*Water Pollution Control Board; 327 IAC 16-2-32; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1887*)

### **327 IAC 16-2-33 “Registered professional engineer” defined**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30; IC 25-31

Sec. 33. “Registered professional engineer” means a professional engineer registered by the state under IC 25-31. (*Water Pollution Control Board; 327 IAC 16-2-33; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1887*)

### **327 IAC 16-2-34 “Sensitive area” defined**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30; IC 14-31; IC 14-38-1-5

Sec. 34. “Sensitive area” means a site where conditions exist that pose a specific water quality threat to one (1) or more of the following:

- (1) Aquifers used as a source of drinking water.
- (2) Public water supply wells.
- (3) Wellhead protection areas.
- (4) Drinking water supply reservoirs.
- (5) Areas requiring special protection, such as:
  - (A) wetlands, except for wetlands constructed for manure management;
  - (B) karst terrains;
  - (C) the critical habitat of an endangered species; or
  - (D) natural areas, including:
    - (i) parks;
    - (ii) nature preserves, as regulated under IC 14-31;
    - (iii) historic sites, as defined in section 18 of this rule; and
    - (iv) public lands, as defined in IC 14-38-1-5.

(*Water Pollution Control Board; 327 IAC 16-2-34; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1887*)

### **327 IAC 16-2-35 “Spill” defined**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 35. “Spill” means any unexpected, unintended, abnormal, or unapproved dumping, leakage, drainage, seepage, discharge or other loss of petroleum, hazardous substances, extremely hazardous substances, or objectionable substances. The term does not include releases to impermeable surfaces when the substance does not migrate off the surface or penetrate the surface and enter the soil. (*Water Pollution Control Board; 327 IAC 16-2-35; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1887*)

### **327 IAC 16-2-36 “Spray irrigation” defined**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 36. "Spray irrigation" means the application of manure on the land through a stationary or mobile sprinkler type system. (*Water Pollution Control Board; 327 IAC 16-2-36; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1887*)

**327 IAC 16-2-37 "Staging" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4  
Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 37. "Staging" means the temporary placement of manure in a pile at the site where the manure will be land applied. (*Water Pollution Control Board; 327 IAC 16-2-37; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1887*)

**327 IAC 16-2-38 "Surface application" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4  
Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 38. "Surface application" means the placement of manure by spraying or spreading onto the land surface. (*Water Pollution Control Board; 327 IAC 16-2-38; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1887*)

**327 IAC 16-2-39 "Surface water" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4  
Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 39. "Surface water" means water present on the surface of the earth, including:

- (1) streams;
- (2) lakes;
- (3) ponds;
- (4) rivers;
- (5) swamps;
- (6) marshes; or
- (7) wetlands.

(*Water Pollution Control Board; 327 IAC 16-2-39; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1887*)

**327 IAC 16-2-40 "Uncovered" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4  
Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 40. "Uncovered" means any structure that allows exposure of manure to precipitation events or to the run-on or run-off from precipitation events. (*Water Pollution Control Board; 327 IAC 16-2-40; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1888*)

**327 IAC 16-2-41 "Vegetative management system" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4  
Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 41. "Vegetative management system" means a vegetated area designed to accept contaminated run-off or waste liquid after settling for the purpose of treatment or infiltration into the soil. (*Water Pollution Control Board; 327 IAC 16-2-41; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1888*)

**327 IAC 16-2-42 "Waste liquid" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4  
Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 42. "Waste liquid" means liquid to be handled as manure that is generated at the confined feeding operation, including:

- (1) excess drinking water;
- (2) clean-up water;
- (3) contaminated livestock truck or trailer washwater;
- (4) milking parlor wastewater;
- (5) milk house washwater;
- (6) egg washwater; or
- (7) silage leachate.

(*Water Pollution Control Board; 327 IAC 16-2-42; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1888*)

**327 IAC 16-2-43 "Waste liquid storage system" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4  
Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 43. "Waste liquid storage system" means any storage structures, conveyances, or other devices to manage waste liquids. (*Water Pollution Control Board; 327 IAC 16-2-43; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1888*)

**327 IAC 16-2-44 "Waste management system" defined**

Authority: IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4  
Affected: IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 44. "Waste management system" means any method of managing manure at the confined feeding operation, including:

- (1) manure storage structures;
- (2) manure transfer systems;
- (3) manure treatment systems, such as:
  - (A) a constructed wetland;
  - (B) a vegetative management system;
  - (C) a wastewater treatment system under a valid national pollutant discharge elimination system (NPDES) permit; or
  - (D) another system approved by the commissioner;
- (4) feedlots;
- (5) confinement buildings; or

(6) waste liquid handling, storage, and treatment systems. (Water Pollution Control Board; 327 IAC 16-2-44; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1888)

### 327 IAC 16-2-45 "Waters" defined

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2-265; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 45. (a) "Waters", as defined in IC 13-11-2-265, means:

(1) the accumulations of water, surface and underground, natural and artificial, public and private; or  
(2) a part of the accumulations of water; that are wholly or partially within, flow through, or border upon Indiana.

(b) The term does not include:

(1) a private pond; or  
(2) an off-stream pond, reservoir, or facility built for reduction or control of pollution or cooling of water prior to discharge;

unless the discharge from the pond, reservoir, or facility causes or threatens to cause water pollution. (Water Pollution Control Board; 327 IAC 16-2-45; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1888)

### Rule 3. Performance Standards for All Confined Feeding Operations

327 IAC 16-3-1 Performance standards

#### 327 IAC 16-3-1 Performance standards

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 1. (a) A confined feeding operation shall be managed to avoid an unpermitted discharge into waters of the state.

(b) A confined feeding operation must be conducted in a manner that minimizes nonpoint source pollution entering waters of the state.

(c) A confined feeding operation shall immediately take all reasonable steps to prevent spills or the discharge of manure in violation of the approval or this article, including seepage and leakage.

(d) All waste management systems must be designed, constructed, and maintained to minimize leaks and seepage and prevent spills.

(e) Manure to be staged or applied to land in Indiana must be staged or applied in such a manner as:

(1) not to enter or threaten to enter waters of the state;  
(2) to prevent:  
(A) run-off;  
(B) ponding for more than twenty-four (24) hours;  
and

(C) spills; and

(3) to minimize nutrient leaching beyond the root zone. (Water Pollution Control Board; 327 IAC 16-3-1; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1888)

### Rule 4. General Approval Conditions

327 IAC 16-4-1 Requirement to obtain an approval

327 IAC 16-4-2 Conditions applicable to all approvals

327 IAC 16-4-3 Additional conditions for large confined feeding operations

327 IAC 16-4-4 Enforcement

#### 327 IAC 16-4-1 Requirement to obtain an approval

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 1. Confined feeding operations must:

(1) have a valid approval to operate; or  
(2) close in accordance with 327 IAC 16-11.

(Water Pollution Control Board; 327 IAC 16-4-1; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1889)

#### 327 IAC 16-4-2 Conditions applicable to all approvals

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18-10; IC 13-30

Sec. 2. The following conditions apply to all confined feeding approvals:

(1) The owner/operator must comply with all terms and conditions of the approval and this article.

(2) The owner/operator shall take all reasonable steps to prevent, minimize, or correct any adverse impact on the environment resulting from noncompliance with the approval or this article.

(3) The filing by the owner/operator of a request for an approval amendment, revocation and reissuance, or revocation does not stay or suspend any approval term or condition. The approval may be amended, revoked and reissued, or revoked for causing or threatening to cause harm to the environment.

(4) The approval does not convey any property rights of any sort or any exclusive privilege.

(5) The owner/operator shall allow the commissioner, or an authorized representative (including an authorized contractor acting as a representative of the commissioner), upon the presentation of credentials and in compliance with biosecurity procedures developed by the department in consultation with the Indiana state board of animal health or individual owner/operators as defined in 327 IAC 16-2-29:

(A) to enter upon the confined feeding operation premises or where any records must be kept under the terms and conditions of the approval or this article;

(B) to have access for review to any records that must be kept under the terms and conditions of the approval;

(C) to inspect, at reasonable times:

- (i) any monitoring equipment or method;
- (ii) any waste management systems; or
- (iii) practices required or otherwise regulated under the approval; and

(D) to sample or monitor, at reasonable times, for the purpose of evaluating compliance with the approval or state and federal laws and regulations.

(6) The provisions of this approval are severable and, if any provision of the approval or the application of any provision of the approval to any circumstances is held invalid, the application of such provision to other circumstances and the remainder of this approval shall not be affected thereby.

*(Water Pollution Control Board; 327 IAC 16-4-2; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1889)*

### **327 IAC 16-4-3 Additional conditions for large confined feeding operations**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 3. (a) In addition to the other requirements of this article, the owner/operator of confined feeding operations with more than twenty (20) times the animal numbers listed in 327 IAC 16-2-5 must comply with the provisions in this section.

(b) The owner/operator shall comply with the public notice requirements under 327 IAC 16-7-12 and the public comment period and hearing requirements under 327 IAC 16-7-13.

(c) If determined to be necessary to protect human health or the environment, the commissioner may require additional design standards, operational requirements, or other best management practices, such as:

- (1) monitoring systems;
- (2) liners;
- (3) higher compaction;
- (4) reporting;
- (5) innovative technology; or
- (6) other protective measures.

(d) The commissioner shall provide written documentation describing the basis for requiring additional design or operational requirements. *(Water Pollution Control Board; 327 IAC 16-4-3; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1889)*

### **327 IAC 16-4-4 Enforcement**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14-2-6; IC 13-15; IC 13-18; IC 13-30-3

Sec. 4. For a confined feeding operation that has a valid approval, a violation of the operational requirements in 327 IAC 16-9, or land application of manure requirements in 327 IAC 16-10, may not be subject to an enforcement action pursuant to IC 13-30-3 or IC 13-14-2-6 if the violation:

(1) has not caused a:

- (A) discharge to waters of the state; or
- (B) release of manure that has crossed a property boundary;

(2) is corrected:

- (A) immediately; or
- (B) within a reasonable time frame as specified in a written notification of the violation by a department representative;

(3) is not the same type of violation as a violation that occurred within the previous five (5) years; and

(4) is not one of multiple concurrent violations that represent a threat to the environment.

*(Water Pollution Control Board; 327 IAC 16-4-4; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1889)*

### **Rule 5. Alternate Design or Compliance Approach; Innovative Technology**

327 IAC 16-5-1 Alternate design or compliance approach; innovative technology

### **327 IAC 16-5-1 Alternate design or compliance approach; innovative technology**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 1. (a) The use of a design or compliance approach other than the requirement specified in this article, or an innovative technology may be proposed by the owner/operator in accordance with the following:

(1) The proposal for the alternative design or compliance approach, or innovative technology must be accompanied by documentation that indicates that the performance standards in 327 IAC 16-3-1 will be met. The alternative design or compliance approach, or innovative technology must comply with all existing environmental regulations and laws.

(2) The proposed design or compliance approach, or innovative technology must be incorporated into the approval.

(b) In making a determination on an alternate design or compliance approach, or innovative technology, the commissioner shall consider applicable criteria that may include:

- (1) design specifications that indicate adequate structural integrity;
- (2) protective measures that reduce the potential for spills;

(3) existence of barriers or surface gradient that directs liquid flow away from features specified for protection;

(4) operational practices that provide additional protection;

(5) threats of adverse impacts to water quality or other specified sensitive areas; and

(6) other criteria related to protection of the environment or human health.

(c) The commissioner shall provide written documentation describing the basis for the approval or denial of the proposed alternate design, compliance approach, or innovative technology. (*Water Pollution Control Board; 327 IAC 16-5-1; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1890*)

### **Rule 6. Existing Confined Feeding Operations**

327 IAC 16-6-1 Existing confined feeding operations

#### **327 IAC 16-6-1 Existing confined feeding operations**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18-10-2.3; IC 13-30

Sec. 1. (a) Existing confined feeding operations are not subject to 327 IAC 16-8, but must be maintained and operated in compliance with all:

- (1) federal laws;
- (2) state laws; and
- (3) approval conditions.

(b) The owner/operator of existing confined feeding operations shall comply with the following requirements by the effective date of this rule:

(1) Operational requirements in 327 IAC 16-9, except the owner/operator shall comply with 327 IAC 16-9-4 within ninety (90) days of the effective date of this rule.

(2) Manure application requirements in 327 IAC 16-10.

(3) Manure management plan requirements in IC 13-18-10-2.3, and as described in 327 IAC 16-7-11.

(4) Closure requirements in 327 IAC 16-11.

(c) An approval amendment is required for an increase in the amount of manure generated that:

(1) reduces the storage capacity to less than the required storage capacity at the time of the most recent approval; or

(2) results from an increase in the number of animals, excluding swine that weigh twenty-five (25) kilograms or less, by:

- (i) more than the numbers in 327 IAC 16-2-5; or
- (ii) greater than ten percent (10%) of the approved animal capacity at the time of the most recent approval.

(d) The owner/operator of an existing confined feeding operation shall have a soil test and a manure test conducted in accordance with a manure management plan prior to April 1, 2002.

(e) For existing confined feeding operations, application of manure to the land must be conducted in accordance with the following:

(1) Prior to April 1, 2002, manure application must:

(A) be at a rate not to exceed one hundred fifty (150) pounds of potentially available nitrogen per acre per year for confined feeding operations that have not received soil and manure test results; or

(B) in accordance with agronomic rates for potentially available nitrogen as documented in the operating record for confined feeding operations that have received soil and manure test results.

(2) After April 1, 2002, all manure application must be in accordance with agronomic rates for potentially available nitrogen as documented in records at the confined feeding operation.

(f) All confined feeding operation approvals issued prior to the effective date of this rule shall expire no later than five (5) years from the effective date of this rule unless a renewal application is submitted in accordance with 327 IAC 16-7-4. (*Water Pollution Control Board; 327 IAC 16-6-1; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1890*)

### **Rule 7. Application and Approval Process for Confined Feeding Operations**

327 IAC 16-7-1	Applicability
327 IAC 16-7-2	Application requirements
327 IAC 16-7-3	Duration of approvals
327 IAC 16-7-4	Approval renewals
327 IAC 16-7-5	Amendments and notifications
327 IAC 16-7-6	Revocation
327 IAC 16-7-7	Transferability
327 IAC 16-7-8	Plot maps
327 IAC 16-7-9	Farmstead plan
327 IAC 16-7-10	Waste management system drawing
327 IAC 16-7-11	Manure management plan
327 IAC 16-7-12	Notice to adjacent landowners
327 IAC 16-7-13	Public comment periods and hearings

#### **327 IAC 16-7-1 Applicability**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 4-21.5; IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 1. (a) This rule applies to any person seeking approval for a confined feeding operation.

(b) A person shall not begin construction of a confinement building or waste management system at a new or an existing confined feeding operation without obtaining the prior written approval of the commissioner.

(c) All manure management structures approved prior to July 1, 1997, that have not been constructed, but that are intended to be constructed, must meet one (1) of the following:

- (1) Construction must be:
  - (A) initiated by the effective date of this rule; and
  - (B) completed within two (2) years of the effective date of this rule or the date all appeals brought under IC 4-21.5 concerning the construction of the confined feeding operation have been completed, whichever is later.
- (2) A new application for the manure management structure must be submitted to the department under this article.

*(Water Pollution Control Board; 327 IAC 16-7-1; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1891)*

### **327 IAC 16-7-2 Application requirements**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18-10-2; IC 13-30; IC 25-17.6

Sec. 2. (a) Two (2) copies of the application package for an approval of a confined feeding operation must be submitted to the commissioner in a format specified by the department.

(b) A complete application package must include all of the following information:

- (1) A completed application form on forms provided by the department.
- (2) A plot map as described in section 8 of this rule.
- (3) A farmstead plan as described in section 9 of this rule.
- (4) A waste management system drawing as described in section 10 of this rule.
- (5) Soil and water table information from test holes for proposed liquid manure storage structures that are conducted by a soil scientist certified under the Federation of Certified Boards of Agriculture, Biology, Earth and Environmental Sciences, a professional geologist certified in Indiana under IC 25-17.6, or a professional engineer registered in Indiana. The number of test holes must be sufficient to adequately characterize the seasonal water table and soil. Test holes for concrete liquid manure storage structures must be at least two (2) feet below the base of the structure. Test holes for earthen liquid manure storage structures must be:
  - (A) at least five (5) feet below the base of the structure for non-karst areas; or
  - (B) in accordance with 327 IAC 16-8-1(b)(1) in areas of karst terrain or over mines.
- (6) A manure management plan as described in section 11 of this rule.

(7) A description of any proposed alternative to a specific requirement in this article to indicate equivalent environmental and human health protection in accordance with 327 IAC 16-5.

(8) For new earthen liquid manure storage structures, certification of the structure design by a professional engineer registered in Indiana.

(9) A list of potentially affected parties.

(10) A fee of one hundred dollars (\$100), in accordance with IC 13-18-10-2(a)(5).

(11) Other plans or supplemental information that may be required by the commissioner to ensure compliance with this article. The commissioner shall provide written documentation of the basis for requiring any other plans or supplemental information.

(c) The commissioner may deny an approval application, or place conditions on an approval:

- (1) if the confined feeding operation is, at the time of the approval application or approval decision, not in compliance with water pollution control laws, IC 13-18, or rules promulgated thereunder;
- (2) consistent with IC 13-18-10-2.1; or
- (3) if the application does not meet the requirements of this article.

(d) The commissioner shall provide written documentation of the basis for denial of the application or placement of additional conditions on the approval. *(Water Pollution Control Board; 327 IAC 16-7-2; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1891)*

### **327 IAC 16-7-3 Duration of approvals**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 3. (a) An approval and approval renewal shall be effective for a fixed term not to exceed five (5) years. An approval may be amended, revoked, and reissued, or revoked prior to the expiration of the term for cause, as specified in sections 5 and 6 of this rule, or in accordance with conditions set forth in the approval. In no event may the term of an approval be extended beyond five (5) years from its original effective date by amendment, extension, or other means, except as provided in subsection (b).

(b) If the owner/operator wishes to continue the activity regulated by the approval after the expiration date of the approval, the owner/operator shall apply for and obtain an approval renewal. The terms and conditions of an expired approval are automatically extended in full force and effect until the effective date of a renewal, if:

- (1) the owner/operator has submitted a timely and sufficient application for an approval renewal under

this article; and

(2) the commissioner, through no fault of the owner/operator, does not issue an approval renewal prior to the expiration date of the previous approval.

*(Water Pollution Control Board; 327 IAC 16-7-3; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1892)*

### **327 IAC 16-7-4 Approval renewals**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 4-21.5; IC 13-11-2; IC 13-14; IC 13-15; IC 13-18-10-2.3; IC 13-30-3

Sec. 4. (a) In accordance with IC 13-18-10-2.3, an updated manure management plan must be submitted once every five (5) years, along with the additional information required in subsection (b), prior to the expiration of the approval. Approval renewals shall be issued for a fixed term not to exceed five (5) years. A confined feeding operation that has had a discharge within the previous five (5) years that was, or is subject to an enforcement action by the department pursuant to IC 13-30-3 shall be subject to public notice requirements in section 13 of this rule upon receipt of a complete renewal application by the department. A confined feeding operation that has not had a discharge within the previous five (5) years that was, or is subject to an enforcement action by the department pursuant to IC 13-30-3 shall be considered to have a new approval renewal upon receipt of a complete approval renewal application by the department.

(b) The application for approval renewal must contain the following:

(1) The name, full address, phone number, and contact person for the confined feeding operation.

(2) An updated manure management plan in accordance with section 11 of this rule.

(3) If any information from the original application has changed, or is proposed to be changed, then updates of any applicable items in section 2(b) of this rule.

*(Water Pollution Control Board; 327 IAC 16-7-4; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1892)*

### **327 IAC 16-7-5 Amendments and notifications**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15-7-1; IC 13-18-10-2.1; IC 13-30

Sec. 5. (a) The commissioner may issue amendments to approvals of a confined feeding operation at any time:

(1) pursuant to IC 13-18-10-2.1(e);

(2) to address phosphorous limits if adequate information indicates that the application of manure to land represents a water quality threat;

(3) at the request of the applicant to address changes at

the confined feeding operation that do not require a new approval;

(4) as a result of an agreement between the department and the owner/operator; or

(5) due to a reduction in storage capacity that results in less than one hundred eighty (180) days storage capacity.

(b) Changes that require only written notification to the department, include the following:

(1) Changes to the positioning of a structure that remains in compliance with the setback distances and within the boundaries identified in the farmstead plan in section 9 of this rule and delineated by representative site borings.

(2) Changes to the design or construction of a structure as shown in as-built plans.

(3) Reduction in storage capacity that results in at least one hundred eighty (180) days combined storage at the confined feeding operation after the manure storage structure closure.

(4) Transfers of ownership as described in section 7 of this rule.

(5) Corrections of typographical or other minor errors within the approval or other minor changes as determined by the commissioner.

(c) The commissioner shall provide written documentation of the basis for issuing or denying an amendment. *(Water Pollution Control Board; 327 IAC 16-7-5; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1892)*

### **327 IAC 16-7-6 Revocation**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18-10; IC 13-30

Sec. 6. (a) The commissioner may revoke an approval or a condition of an approval as a result of a violation of:

(1) water pollution control laws;

(2) rules adopted under the water pollution control laws;

(3) IC 13-18-10;

(4) this article; or

(5) approval conditions.

(b) The commissioner shall provide written documentation of the basis for revoking an approval or a condition of an approval. *(Water Pollution Control Board; 327 IAC 16-7-6; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1892)*

### **327 IAC 16-7-7 Transferability**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 7. An approval issued by the department shall be transferred to another person by the current approval

recipient if, at least forty-five (45) days prior to the date of the proposed transfer of the approval:

- (1) the current approval recipient notifies the commissioner of the proposed transfer; and
- (2) a written agreement is submitted to the commissioner containing:
  - (A) a specific date for transfer of approval responsibilities; and
  - (B) identification of responsibility for any violations existing at the time of the transfer.

(*Water Pollution Control Board; 327 IAC 16-7-7; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1893*)

### 327 IAC 16-7-8 Plot maps

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 8. (a) The applicant shall submit plot maps of the location proposed for approval consisting of the following:

- (1) A United States Department of Agriculture Natural Resources Conservation Service soil survey map.
- (2) A United States Geological Survey topographical map that includes identification of any public water supply wells and public water supply surface intake structures within one thousand (1,000) feet of the manure storage structures.
- (b) The maps in subsection (a) must be legible and clearly show the following:
  - (1) The location of the waste management systems.
  - (2) The boundaries of the property of the confined feeding operation.
  - (3) The boundaries of all manure application areas.

These maps will satisfy the requirement for maps under section 11(a)(3) of this rule. (*Water Pollution Control Board; 327 IAC 16-7-8; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1893*)

### 327 IAC 16-7-9 Farmstead plan

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 9. (a) A farmstead plan must show all existing and proposed waste management systems, and, within five hundred (500) feet of the waste management systems, the following known features:

- (1) Residences.
- (2) Surface waters of the state.
- (3) Public and private roads.
- (4) Water well locations.
- (5) Characteristics of karst terrain as identified in 327 IAC 16-2-21.
- (6) Drainage patterns.

(7) Property boundary line.

(8) All outfalls of known subsurface drainage structures.

(9) Drainage inlets, including water and sediment control basins.

(b) In addition to subsection (a), the farmstead plan must show the diversion of uncontaminated surface water.

(c) The farmstead plan must be legible and either:

- (1) drawn to approximate scale; or
- (2) show specific distances between:

(A) the waste management systems; and

(B) the features in subsection (a) that are within five hundred (500) feet of the existing or proposed waste management system.

(d) The plan must be submitted on paper no less than eight and one-half (8½) inches by eleven (11) inches in size. (*Water Pollution Control Board; 327 IAC 16-7-9; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1893*)

### 327 IAC 16-7-10 Waste management system drawing

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 10. The waste management system drawing must show detailed views and necessary cross sections to define all dimensions and construction materials. Systems relying on gravity flow must provide elevations of the entire waste management system. (*Water Pollution Control Board; 327 IAC 16-7-10; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1893*)

### 327 IAC 16-7-11 Manure management plan

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 11. (a) A manure management plan must be developed and submitted to the commissioner that, at a minimum, contains the following:

- (1) Procedures for soil testing as described in subsections (c) and (e).
- (2) Procedures for manure testing as described in subsections (d) and (e).
- (3) Legible maps of manure application areas.
- (b) If applicable, the manure management plan must also contain a description of any:
  - (1) alternate methods proposed by the applicant for managing of the manure; and
  - (2) other practices to be used that assure the confined feeding operation meets the performance standards in this article.
- (c) A soil test must be obtained that provides sufficient

information about soil fertility to allow for nutrient recommendations for existing or planned crops and to minimize nutrient leaching.

(d) A manure test must be obtained that provides sufficient information about the manure content to allow for nutrient recommendations for existing or planned crops and to minimize nutrient leaching.

(e) The frequency of soil and manure testing must:

- (1) be specified in the manure management plan; and
- (2) be conducted a minimum of once every three (3) years unless a different frequency is justified in the manure management plan.

(f) One (1) manure test must be conducted for each type of manure generated.

(g) A manure management plan must be submitted to the department at least one (1) time every five (5) years and with any approval application and renewal application to maintain a valid approval for the confined feeding operation. A copy of the current manure management plan must be reasonably accessible to a representative of the department during an inspection. (*Water Pollution Control Board; 327 IAC 16-7-11; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1893*)

### **327 IAC 16-7-12 Notice to adjacent landowners**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 12. An applicant who applies for approval to construct a confined feeding operation on land that is undeveloped or for which a valid existing approval has not been issued shall make a reasonable effort to provide notice:

(1) to:

(A) each person who owns land that adjoins the land on which the confined feeding operation is to be located; or

(B) if a person who owns land that adjoins the land on which the confined feeding operation is to be located does not occupy the land, all occupants of the land; and

(2) to the county commissioners of the county in which the confined feeding operation is to be located;

not more than ten (10) working days after submitting an application. The notice must be sent by mail, be in writing, include the date on which the application was submitted to the department, and include a brief description of the subject of the application. The applicant shall pay the cost of complying with this section. The applicant shall submit an affidavit to the department that certifies that the applicant has complied with this section. (*Water Pollution Control Board; 327 IAC 16-7-12; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1894*)

### **327 IAC 16-7-13 Public comment periods and hearings**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15-3-1; IC 13-18; IC 13-30

Sec. 13. (a) This section applies to:

(1) an application for an approval for a confined feeding operation that has:

(A) conducted confined feeding activities as defined in 327 IAC 16-2-4 prior to application for an approval; and

(B) had a discharge prior to application for an approval;

(2) an application for an approval for a confined feeding operation that will have twenty (20) times the animal numbers listed in 327 IAC 16-2-5; or

(3) an application for an approval renewal for a confined feeding operation that has had a discharge subject to an enforcement action by the agency within the previous five (5) years.

(b) Upon receipt of an application package, the department shall provide notice of receipt of the application to:

(1) the owner/operator;

(2) the public through notice in a newspaper; and

(3) local officials in accordance with IC 13-15-3-1.

(c) A comment period of at least thirty (30) days following the date of public notice of the receipt by the department of an approval application shall be provided. During this period, any interested persons may submit written comments on the approval application and may request a public hearing. A request for a public hearing shall be in writing and shall state the nature of the issues to be raised and the reasons why a hearing is warranted. The commissioner, after reviewing all comments, shall make a decision consistent with this article and applicable federal and state laws.

(d) A public hearing on an approval application may be held by the commissioner in appropriate cases where environmental concerns relevant to applicable rules or laws are raised, either on the commissioner's own initiative or in response to a request or requests for public hearing submitted during the public comment period. Such a hearing shall be held where the commissioner finds there is a significant public interest in the approval application. (*Water Pollution Control Board; 327 IAC 16-7-13; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1894*)

### **Rule 8. Manure Handling and Storage; Site, Design, and Construction Requirements**

327 IAC 16-8-1 Site restrictions for new waste management systems for liquid or solid manure

327 IAC 16-8-2 Waste management system setbacks

327 IAC 16-8-3 Design requirements applicable to all new

- 327 IAC 16-8-4 waste management systems
- 327 IAC 16-8-4 Storage capacity for manure storage structures
- 327 IAC 16-8-5 Design requirements applicable to all new liquid manure storage structures
- 327 IAC 16-8-6 Design requirements applicable to all new concrete storage structures for liquid manure
- 327 IAC 16-8-7 Design requirements applicable to all new earthen manure storage structures for liquid manure
- 327 IAC 16-8-8 Design requirements applicable to solid manure storage structures
- 327 IAC 16-8-9 Design requirements applicable to other manure storage structures
- 327 IAC 16-8-10 Vegetative management systems
- 327 IAC 16-8-11 Constructed wetlands
- 327 IAC 16-8-12 Construction requirements for waste management systems

**327 IAC 16-8-1 Site restrictions for new waste management systems for liquid or solid manure**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 1. (a) New waste management systems for liquid or solid manure must not be constructed:

- (1) except for subsection (b), in karst terrain based on information compiled by the department, and from karst and bedrock maps from the Indiana Geological Survey dated 1997;
- (2) in a floodway;
- (3) in a one hundred (100) year flood plain, unless all waste management system access is at least two (2) feet above the one hundred (100) year flood plain;
- (4) except for subsection (b), over mines; or
- (5) in soil that is expected to be in the seasonal high water table, unless the water table is lowered to keep the water table below the bottom of the waste management system.

(b) The commissioner may approve a new waste management system to be constructed in karst terrain or over mines based upon the following site-specific information submitted to the commissioner:

- (1) For earthen manure storage structures for liquid manure, in addition to 327 IAC 16-7-2(b)(5), information from at least one (1) of the soil borings or test holes to the shallower of either:
  - (A) bedrock; or
  - (B) ten (10) feet below the lowest point of the proposed waste management system.
- (2) Characterization of the seasonal water table and soil.
- (3) Design specifications that indicate adequate struc-

tural integrity and environmental protection.

- (4) Other information that the commissioner deems necessary to ensure protection of human health and the environment.

*(Water Pollution Control Board; 327 IAC 16-8-1; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1895)*

**327 IAC 16-8-2 Waste management system setbacks**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 2. (a) Waste management systems must be located to maintain the minimum setback distances from the following features that are known and identifiable at the time of application:

- (1) One thousand (1,000) feet from a public water supply well or public water supply surface intake structure.
- (2) Except for subsection (b), three hundred (300) feet from:
  - (A) surface waters of the state;
  - (B) drainage inlets, including water and sediment control basins;
  - (C) sinkholes, as measured from the surficial opening or the lowest point of the feature; and
  - (D) off-site water wells.
- (3) One hundred (100) feet from:
  - (A) on-site water wells;
  - (B) property lines; and
  - (C) public roads.

(b) A solid manure storage structure that contains the manure and prevents storm water from entering the structure must be maintained to have a minimum setback of one hundred (100) feet from the features in [subsection] (a)(2) of this section.

(c) If one (1) of the features in subsection (a) is constructed within the specified setback distance in subsection (a), then a new waste management system may be constructed no closer to the new feature than the distance between the original waste management system and the new feature, providing that:

- (1) the new feature was not under the control of the owner/operator of the confined feeding operation; and
- (2) the new feature was constructed after the application for original new waste management system was submitted to the department.

(d) The owner/operator may obtain a reduced setback under 327 IAC 16-5, by demonstrating to the commissioner that a different compliance approach meets the performance standards in 327 IAC 16-3-1.

(e) If deemed necessary to protect human health or the environment, the commissioner shall require a greater setback distance or require setback distances to resi-

dences and public buildings based on:

- (1) surface gradient; or
- (2) other criteria related to protection of human health or the environment.

(f) The commissioner shall provide written documentation of the basis for requiring additional setback distances under subsection (e). (*Water Pollution Control Board; 327 IAC 16-8-2; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1895*)

### **327 IAC 16-8-3 Design requirements applicable to all new waste management systems**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4  
**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 3. (a) The base of a new manure storage structure must be above bedrock as follows:

- (1) If not in karst terrain, the base must be at least two (2) feet above bedrock.
- (2) If in karst terrain, the base must be at a distance above bedrock that is determined by the commissioner based on information provided under section 1(b) of this rule.

(b) Any drainage system to lower a seasonal water table around the base of a waste management system must be equipped with an access point for sampling.

(c) If determined to be necessary to protect human health or the environment in highly permeable soils, in areas with a high water table, on steep slopes, in proximity to bedrock, or in sensitive areas, the commissioner may require additional design standards, such as:

- (1) monitoring systems;
- (2) liners;
- (3) higher compaction;
- (4) innovative technology; or
- (5) other protective measures.

(d) The commissioner shall provide written documentation of the basis for requiring additional design standards under subsection (c). (*Water Pollution Control Board; 327 IAC 16-8-3; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1895*)

### **327 IAC 16-8-4 Storage capacity for manure storage structures**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4  
**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 4. All new manure storage structures for the confined feeding operation must be designed, constructed, and maintained with a combined storage capacity of at least one hundred eighty (180) days storage for:

- (1) manure;

- (2) if applicable, bedding;
- (3) net average rainfall; and
- (4) if applicable, the expected rainfall and run-off from a twenty-five (25) year, twenty-four (24) hour precipitation event that falls on the drainage area around the liquid manure storage structure, but not to include the expected rainfall and run-off from a twenty-five (25) year, twenty-four (24) hour precipitation event that falls directly on the liquid manure storage structure.

(*Water Pollution Control Board; 327 IAC 16-8-4; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1896*)

### **327 IAC 16-8-5 Design requirements applicable to all new liquid manure storage structures**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4  
**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 5. (a) For any uncovered new liquid manure storage structures, the design must include a minimum of two (2) feet of freeboard to include the expected rainfall from a twenty-five (25) year, twenty-four (24) hour precipitation event that falls directly on the liquid manure storage structure.

(b) An emergency spillway must exist to handle overflow for an uncovered new liquid manure storage structure that receives precipitation run-off from a drainage area, not including the manure storage structure surface area, that exceeds fifty percent (50%) of the surface area of the manure storage structure.

(c) An emergency spillway required under subsection (b) must:

- (1) direct manure to:
  - (A) secondary containment;
  - (B) an appropriate manure storage structure; or
  - (C) an approved vegetative management system; and
- (2) be designed to handle the run-off from a fifty (50) year, twenty-four (24) hour precipitation event.

(d) Manure transfer systems must be designed and constructed to minimize leaks and seepage and prevent spills. (*Water Pollution Control Board; 327 IAC 16-8-5; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1896*)

### **327 IAC 16-8-6 Design requirements applicable to all new concrete storage structures for liquid manure**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4  
**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 6. In addition to sections 1 through 5 of this rule, new concrete storage structures for liquid manure must be designed to be structurally sound through:

- (1) a concrete mixture that is well-proportioned and

- consolidated;
- (2) minimized cracking;
- (3) joints that are properly spaced, sized, designed, and constructed;
- (4) adequate reinforcement steel;
- (5) a foundation that provides necessary support; and
- (6) use of water stops.

(*Water Pollution Control Board; 327 IAC 16-8-6; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1896*)

**327 IAC 16-8-7 Design requirements applicable to all new earthen manure storage structures for liquid manure**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4  
**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 7. (a) In addition to sections 1 through 5 of this rule, and the performance standards of 327 IAC 16-3-1, new earthen manure storage structures must meet the requirements of this section.

(b) New earthen manure storage structures for liquid manure must not have a seepage rate that exceeds one-sixteenth ( $1/16$ ) inch per day.

(c) Designs for new earthen storage structures for liquid manure must be certified by a professional engineer registered in Indiana.

(d) If determined to be necessary to protect the environment, the commissioner may require additional design standards, such as:

- (1) monitoring systems;
- (2) liners;
- (3) higher compaction;
- (4) innovative technology; or
- (5) other protective measures.

(e) The commissioner shall provide written documentation describing the basis for requiring additional design standards. (*Water Pollution Control Board; 327 IAC 16-8-7; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1896*)

**327 IAC 16-8-8 Design requirements applicable to solid manure storage structures**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4  
**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 8. (a) Solid manure storage structures must not be constructed in sand or gravel soils, Unified Soil Classification of Pt, GW, GP, GM, GC, SW, SP, SM, SC, unless specially designed with an approved liner.

(b) Run-on and precipitation must be diverted away from the solid manure storage structures, unless the design includes a method to collect and manage the contaminated run-off.

(c) For purposes of this article, stockpiling of solid

manure at the confined feeding operation is subject to the design standards of this section. (*Water Pollution Control Board; 327 IAC 16-8-8; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1897*)

**327 IAC 16-8-9 Design requirements applicable to other manure storage structures**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4  
**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 9. (a) Installation of underground steel storage tanks for manure is prohibited.

(b) Plastic and fiberglass tanks and aboveground steel tanks must comply with the following:

- (1) Tanks must have sufficient strength to withstand design loads.
- (2) All tanks must be watertight.
- (3) Tanks used to store other substances must be cleaned to remove any traces of other chemicals prior to addition of manure to the tank.
- (4) Tanks must be designed and installed to ensure the seasonal high water table is maintained below the tank or the tank must be anchored to prevent flotation.
- (5) Aboveground tanks must have protected shut-off valves for all inlet and outlet pipes.

(*Water Pollution Control Board; 327 IAC 16-8-9; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1897*)

**327 IAC 16-8-10 Vegetative management systems**

**Authority:** IC 13-14-8-1; IC 13-18-10-4  
**Affected:** IC 13-11-2; IC 13-14-12; IC 13-18; IC 13-30

Sec. 10. (a) A settling basin, low velocity channel, or equivalent structure must be provided between the vegetative management system and the source of contaminated run-off or waste liquid. A constructed settling basin or low velocity channel designed for the one (1) year, one (1) hour precipitation event must have sufficient capacity to store the contaminated run-off or waste liquid and the expected sediment.

(b) Vegetative management systems must have minimum dimensions based on the peak outflow from the confined feeding area or settling basin based on a twenty-five (25) year, twenty-four (24) hour precipitation event. (*Water Pollution Control Board; 327 IAC 16-8-10; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1897*)

**327 IAC 16-8-11 Constructed wetlands**

**Authority:** IC 13-14-8-1; IC 13-18-10-4  
**Affected:** IC 13-11-2; IC 13-14-12; IC 13-18; IC 13-30

Sec. 11. (a) This section applies to the use of a constructed wetland as a waste management system for contaminated run-off or waste liquid.

(b) The owner/operator of a confined feeding operation that plans to use a constructed wetland and discharge the treated effluent must comply with applicable state and federal requirements.

(c) The owner/operator of a confined feeding operation that plans to use a constructed wetland and does not plan to discharge the treated effluent must:

- (1) obtain approval of the design plan from the commissioner; and
- (2) apply the treated effluent to the land in accordance with 327 IAC 16-10 or in accordance with an alternate method described in the manure management plan under 327 IAC 16-7-11(b)(1).

*(Water Pollution Control Board; 327 IAC 16-8-11; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1897)*

### **327 IAC 16-8-12 Construction requirements for waste management systems**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 12. (a) All waste management systems must be constructed to minimize leaks and seepage and prevent spills that could contaminate ground water or surface water.

(b) The owner/operator shall notify the commissioner when construction on a new waste management system begins.

(c) The commissioner may incorporate conditions into the approval that require testing to verify that the earthen liquid waste management system is consistent with the design and meets the performance standards established in this article.

(d) Within thirty (30) days after the date construction of an approved waste management system is completed, and prior to the introduction of any animals, the applicant shall execute and send to the commissioner an affidavit, under penalty of perjury, that a waste management system was constructed, and will be operated, in accordance with the requirements of the approval and this article. *(Water Pollution Control Board; 327 IAC 16-8-12; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1897)*

### **Rule 9. Manure Handling and Storage; Operational Requirements**

327 IAC 16-9-1	Maintenance requirements
327 IAC 16-9-2	Transport and handling
327 IAC 16-9-3	Dead animal compost operations
327 IAC 16-9-4	Emergency spill response plan
327 IAC 16-9-5	Operating record

### **327 IAC 16-9-1 Maintenance requirements**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 1. (a) All waste management systems and application equipment must be maintained and operated to meet the approval conditions.

(b) Management of liquid and solid manure must be in compliance with the following:

- (1) This article.
- (2) The confined feeding operation approval.
- (3) All applicable state and federal laws.

(c) Manure must be in an approved manure storage structure until removed for land application in accordance with 327 IAC 16-10.

(d) If uncovered, liquid manure storage structures must be maintained with a minimum freeboard of two (2) feet or as specified in the approval conditions.

(e) The owner/operator shall inspect all waste management systems for compliance with this article and the approval conditions and, if applicable, freeboard as specified in subsection (d) or the approval, at least one (1) time each month. Completed self-monitoring records must be kept in the operating record described in section 5 of this rule.

(f) Uncovered liquid manure storage structures must have clearly identified markers to indicate manure levels relative to the approved freeboard elevation.

(g) All earthen berms for manure storage structures must:

- (1) be stabilized with vegetation or alternative erosion control measures; and
- (2) be maintained to allow for visual inspection.

(h) An owner/operator that plans to use a vegetative management system must operate and maintain the vegetative management system to provide effective treatment.

(i) Migration of solids from contaminated run-off from any feedlot must be minimized. *(Water Pollution Control Board; 327 IAC 16-9-1; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1898)*

### **327 IAC 16-9-2 Transport and handling**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 2. Pumping, dumping, or allowing the leakage or drainage of manure from a manure transfer vehicle onto unauthorized premises, public thoroughfares, or into waters of the state is prohibited. *(Water Pollution Control Board; 327 IAC 16-9-2; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1898)*

### **327 IAC 16-9-3 Dead animal compost operations**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 3. (a) Dead animal compost operations must have

run-on and run-off control.

(b) Dead animal compost may be applied to the land if in accordance with the manure application requirements in this article. (*Water Pollution Control Board; 327 IAC 16-9-3; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1898*)

### **327 IAC 16-9-4 Emergency spill response plan**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 4. (a) The owner/operator of a confined feeding operation shall:

- (1) develop an emergency spill response plan as described in subsection (c);
- (2) keep it in the operating record;
- (3) implement the emergency spill response plan at any time a spill occurs; and
- (4) familiarize all employees involved with manure handling with the emergency spill response plan.

(b) The emergency spill response plan must be located at the confined feeding operation in a place accessible to all employees.

(c) The emergency spill response plan must include the following:

- (1) The names and telephone numbers of persons who are identified by the owner/operator as responsible for implementing the emergency spill response plan.
- (2) Areas where potential spills can occur and their accompanying drainage points.
- (3) Procedures to be followed in the event of a spill, including the following:
  - (A) Actions to contain or manage any spill of manure.
  - (B) Identification of the proper authorities to be contacted.
  - (C) Mitigation of any adverse effects of the spill.
- (4) Identification of equipment and clean-up materials to be used in the event of a spill.
- (5) Procedures for reporting the spill to:
  - (A) the confined feeding operation owner/operator;
  - (B) any applicable local emergency or health authorities; and
  - (C) the department in accordance with 327 IAC 2-6.1.

(*Water Pollution Control Board; 327 IAC 16-9-4; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1898*)

### **327 IAC 16-9-5 Operating record**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18-10; IC 13-30

Sec. 5. (a) The following information must be added to the operating record in accordance with required time

frames established in this article and IC 13-18-10, and must be maintained and updated in the operating record:

- (1) All valid approvals, amendments, and notifications relevant to the approvals.
- (2) The current manure management plan.
- (3) The current emergency spill response plan.

(b) The operating record must also contain all applicable records from the following:

- (1) Section 1(e) of this rule, regarding completed self-monitoring records for three (3) years.
- (2) 327 IAC 16-10-1, regarding minimum acreage records.
- (3) 327 IAC 16-10-2(c), regarding land application records for five (5) years.
- (4) 327 IAC 16-10-5(c), regarding marketing and distribution records for three (3) years.
- (5) Documentation of any spill response implemented in accordance with section 4(a)(3) of this rule by confined feeding operation personnel within the past five (5) years.

(*Water Pollution Control Board; 327 IAC 16-9-5; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1899*)

### **Rule 10. Land Application of Manure**

327 IAC 16-10-1 Required acreage for manure application

327 IAC 16-10-2 Manure application rates

327 IAC 16-10-3 Manure application activities

327 IAC 16-10-4 Manure application setbacks

327 IAC 16-10-5 Marketing and distribution of manure

### **327 IAC 16-10-1 Required acreage for manure application**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 1. (a) A minimum number of acres for manure application must be maintained and documented in the operating record at all times based on:

- (1) agronomic rates for potentially available nitrogen provided by a laboratory soil test, and a manure test; or
- (2) application rates not to exceed one hundred fifty (150) pounds of potentially available nitrogen per acre per year, for confined feeding operations that have not received the test results on the soil and manure.

(b) Any acreage identified as part of the minimum required acreage for the application of manure that is not owned by the owner of the confined feeding operation must be documented in the operating record via land use agreements signed by the property owners on whose property the manure will be applied.

(c) The calculation of acreage identified as part of the minimum required acreage for manure application must only include acreage that meets the site restrictions in

section 3 of this rule and the setbacks in section 4 of this rule.

(d) If the applicant can demonstrate to the satisfaction of the commissioner that a smaller amount of acreage can be used and is equally protective of human health and the environment, the commissioner may approve the different amount of acreage based on site-specific criteria submitted with the application package, including:

- (1) type of manure generated;
- (2) alternate methods of managing manure;
- (3) innovative technology; or
- (4) other criteria related to protection of human health or the environment.

(e) Copies of any written waivers related to reduction of the property line setback distances must be kept in the operating record. (*Water Pollution Control Board; 327 IAC 16-10-1; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1899*)

### **327 IAC 16-10-2 Manure application rates**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18-10; IC 13-30

Sec. 2. (a) The owner/operator of a new confined feeding operation shall have a soil test and a manure test conducted in accordance with the manure management plan that is submitted to the commissioner to meet the requirement in 327 IAC 16-7-2(b)(6).

(b) The agronomic rate for potentially available nitrogen must not exceed the nitrogen requirements of current or planned crops of the upcoming growing season as documented in the operating record.

(c) The following information must be added to the operating record as needed in accordance with required time frames established in this article and IC 13-18-10, and must be maintained and updated in the operating record:

- (1) The type of manure applied.
- (2) Results of manure tests.
- (3) Soil tests for all manure application sites.
- (4) The amount of manure applied.
- (5) The type of application method used.
- (6) Identification of locations and number of acres on which manure is applied.
- (7) The dates on which the manure is applied.
- (8) Determination of the agronomic rates for potentially available nitrogen used to apply manure to each field.

(*Water Pollution Control Board; 327 IAC 16-10-2; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1899*)

### **327 IAC 16-10-3 Manure application activities**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 3. (a) Manure that is staged at the manure application site for more than seventy-two (72) hours must be:

- (1) covered or otherwise protected; and
- (2) applied to the site within ninety (90) days.

(b) Staging of solid manure at the manure application site is prohibited:

- (1) within three hundred (300) feet of surface waters of the state, drainage inlets, including water and sediment control basins, or water wells unless there is:

- (A) a barrier; or
- (B) a surface gradient that contains or directs any contaminated run-off away from the waters of the state, drainage inlets, including water and sediment control basins, or water wells;

- (2) on any area with a slope greater than six percent (6%), unless run-on and run-off is controlled; or

- (3) on any standing water or waterway.

(c) To prevent leaks or excessive application of liquid manure spray irrigation must be conducted:

- (1) under the constant supervision of a person designated by the owner/operator or as specified in the approval;

- (2) with devices to detect pressure loss due to leaks and devices to shut down the system if leaks are detected; or

- (3) in accordance with a spray irrigation plan approved by the department.

(d) Spray irrigation of manure must not be applied to any land that has less than twenty (20) inches of soil above the bedrock unless in accordance with an approved spray irrigation plan.

(e) Spray irrigation in a flood plain must be conducted in accordance with a spray irrigation plan that:

- (1) addresses spray irrigation in a flood plain; and
- (2) has been approved by the commissioner.

(f) Application of manure to frozen ground must be handled in accordance with the following:

- (1) Surface application of manure to slopes in excess of two percent (2%) without adequate residue protection or crop cover is prohibited on snow covered or frozen ground.

- (2) Surface application to snow covered or frozen ground of manure from a new or amended operation approved after the effective date of this rule is prohibited, except as allowed in conditions established in a valid approval obtained under 327 IAC 16-7.

- (3) Spray irrigation of liquid manure to snow covered or frozen ground is prohibited.

- (4) Any manure application that causes a water quality violation is a violation of this article and will result in enforcement action.

(g) Manure must not be applied to the land from manure application equipment operating on a public road.

(h) Liquid or solid manure must not be applied to highly erodible land unless:

- (1) the land has residue protection or crop cover; or
- (2) in accordance with a conservation plan.

(i) Manure shall not be applied on saturated ground. (*Water Pollution Control Board; 327 IAC 16-10-3; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1900*)

#### **327 IAC 16-10-4 Manure application setbacks**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 4. (a) Except under subsections (e) and (f), application of manure must be in accordance with the setbacks in Table 1:

Table 1.  
SETBACK DISTANCES (in feet)

Known Feature	Liquid Injection or Single Pass Incorporation	Liquid Incorporation; Application to Pasture; or Solid or Composted Manure Application	Liquid Surface Application	
			Less than or Equal to 6% Slope; or Residue Cover	Greater than 6% Slope
Public water supply wells and public water supply surface intake structures	500	500	500	500
Surface waters of the state	25	50	100	200
Sinkholes (measured from the surficial opening or the lowest point)	25	50	100	200
Wells	50	50	100	200
Drainage inlets	5	50	100	200
Property lines and public roads	0	10	50	50

(b) Liquid incorporation of manure in Table 1 means only manure that has been incorporated into the soil within twenty-four (24) hours of placement on the land.

(c) All setback distances must be measured from the edge of the area of actual placement of manure on the land.

(d) The property line setback distances specified in subsection (a), Table 1, may be waived in writing by the owner of the adjoining property.

(e) If a properly designed and maintained filter strip is located between the application site and:

- (1) waters of the state;
- (2) any known well;
- (3) the surficial opening or lowest point of any sinkhole; or
- (4) any drainage inlet, including water and sediment control basins;

then the setback is the width of the filter strip.

(f) The setback is ten (10) feet if a gradient barrier is located between the application site and:

- (1) surface waters of the state;
- (2) any known well;
- (3) the surficial opening or lowest point of any sinkhole; or
- (4) any drainage inlet, including water and sediment control basins.

(g) The owner/operator may obtain a reduced setback under 327 IAC 16-5, by demonstrating to the commis-

sioner that a different compliance approach meets the performance standards in 327 IAC 16-3-1. (*Water Pollution Control Board; 327 IAC 16-10-4; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1900*)

#### **327 IAC 16-10-5 Marketing and distribution of manure**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 5. (a) The owner/operator of the confined feeding operation shall provide an information sheet to any person that receives or purchases more than ten (10) cubic yards or two thousand (2,000) gallons of manure in a year from the confined feeding operation unless the owner/operator takes responsibility for applying the manure.

(b) The information sheet must contain, at a minimum, the following information:

- (1) The name and address of the confined feeding operation providing the manure.
- (2) A statement indicating that it is unlawful to allow the manure to enter any waters of the state.
- (3) Information on the nutrient content of the manure.
- (4) The manure application requirements of this rule.

(c) The operating record must contain and be maintained and updated with records of any person who receives or purchases more than ten (10) cubic yards or

two thousand (2,000) gallons of manure in a year to include:

- (1) the name and address of the person receiving or purchasing the manure;
- (2) the amount of manure received or purchased by the person; and
- (3) a copy of the information sheet.

(d) All records in this section must be made available to a representative of the department during an inspection. (*Water Pollution Control Board; 327 IAC 16-10-5; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1901*)

### **Rule 11. Closure of Manure Storage Structures**

327 IAC 16-11-1 Applicability

327 IAC 16-11-2 Temporary shut-down of manure storage structures

327 IAC 16-11-3 General closure requirements

#### **327 IAC 16-11-1 Applicability**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 1. (a) The owner/operator of confined feeding operations that plan to close or discontinue use of a manure storage structure must comply with the requirements in section 3 of this rule, as applicable. A manure storage structure is deemed closed when the environmental threat has been removed.

(b) The owner/operator of a confined feeding operation that plans to temporarily discontinue use of a manure storage structure must comply with section 2 of this rule. (*Water Pollution Control Board; 327 IAC 16-11-1; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1901*)

#### **327 IAC 16-11-2 Temporary shut-down of manure storage structures**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 2. (a) Manure storage structures that are temporarily shut down must be maintained in accordance with this article and a valid approval.

(b) A manure storage structure that has been temporarily shut down for three (3) years must be cleaned out in accordance with section 3(c)(1) and 3(c)(2) of this rule. (*Water Pollution Control Board; 327 IAC 16-11-2; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1901*)

#### **327 IAC 16-11-3 General closure requirements**

**Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4

**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 3. (a) The owner/operator of a confined feeding operation that plans to close or discontinue use of a

manure storage structure shall:

(1) close the manure storage structure in accordance with the closure requirements in this section prior to expiration of the approval; or

(2) until the manure is removed, continue to maintain the manure storage structure in accordance with the requirements of the approval and this article.

(b) If the confined feeding operation will not be completely closed, the owner/operator shall apply for an amendment to the approval for any manure storage structure that is to be closed, and:

(1) recalculate the storage capacity for the confined feeding operation; and

(2) notify the department:

(A) before demolishing or converting the use of any manure storage structure; and

(B) of the intended future use of the manure storage structure if the manure storage structure is to be converted to another use.

(c) The owner/operator of manure storage structures that are to be closed shall:

(1) have all the manure removed from the manure storage structure;

(2) have the manure:

(A) applied to the land in accordance with 327 IAC 16-10; or

(B) managed in accordance with this article and applicable state and federal laws; and

(3) have all associated appurtenances, and conveyance structures removed from uncovered liquid manure storage structures.

(d) The owner/operator shall submit a certification to the commissioner within thirty (30) days of completing the requirements in this section that states compliance with the requirements in this section.

(e) If deemed necessary to protect human health or the environment, the commissioner may require additional closure activities based on:

(1) surface or ground water contamination;

(2) evidence of leakage, seepage, or spills; or

(3) other criteria related to protection of human health or the environment.

(*Water Pollution Control Board; 327 IAC 16-11-3; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1901*)

### **Rule 12. Exiting the Confined Feeding Approval Program**

327 IAC 16-12-1 Applicability

327 IAC 16-12-2 Exiting the confined feeding approval program due to a reduction in size of operation

327 IAC 16-12-3 Exiting the confined feeding approval program due to a complete closure of the operation

**327 IAC 16-12-1 Applicability****Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 1. This rule applies to any confined feeding operation with a valid approval that wants to be removed from the program due to:

- (1) a reduction in the size of the confined feeding operation to a number of animals that is less than the definition of confined feeding operation in 327 IAC 16-2-5; or
- (2) a decision to cease operation and completely close the entire confined feeding operation.

*(Water Pollution Control Board; 327 IAC 16-12-1; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1902)*

**327 IAC 16-12-2 Exiting the confined feeding approval program due to a reduction in size of operation****Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 2. (a) A confined feeding operation may be removed from the regulated confined feeding approval program, but continue to operate as a smaller operation, if:

- (1) the department has received a request from the owner/operator to be removed from the program and confirming that the confined feeding operation has and maintains fewer animals than the definition of confined feeding operations in 327 IAC 16-2-5; and
- (2) approved by the commissioner based on a review of the criteria in subsection (b).

(b) The commissioner shall review the following criteria in determining if a request to exit the confined feeding approval should be approved:

- (1) The number of animals at the confined feeding

operation.

(2) Past enforcement actions relative to any discharges and current compliance with any outstanding violations.

(3) Existence of any conditions which pose a threat to human health or the environment.

(c) The commissioner shall send the owner/operator a letter of confirmation when the department has verified that the requirements of subsection (a) have been met.

(d) For a confined feeding operation that has been removed from the confined feeding operation approval program under (a), the owner/operator must submit a new application under this article to again operate a confined feeding operation as defined in 327 IAC 16-2-5. *(Water Pollution Control Board; 327 IAC 16-12-2; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1902)*

**327 IAC 16-12-3 Exiting the confined feeding approval program due to a complete closure of the operation****Authority:** IC 13-14-8-7; IC 13-15-2-1; IC 13-18-10-4**Affected:** IC 13-11-2; IC 13-14; IC 13-15; IC 13-18; IC 13-30

Sec. 3. (a) A confined feeding operation may be removed from the regulated confined feeding approval program and completely closed if the department has been notified that:

- (1) all livestock animals are removed from the site; and
- (2) the confined feeding operation closes all manure storage structures in accordance with 327 IAC 16-11.

(b) The commissioner shall send the owner/operator a letter of confirmation when the department has verified that the requirements of subsection (a) have been met. *(Water Pollution Control Board; 327 IAC 16-12-3; filed Feb 8, 2002, 1:30 p.m.: 25 IR 1902)*

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