
TITLE 326 AIR POLLUTION CONTROL DIVISION**SECOND NOTICE OF COMMENT PERIOD**

LSA Document #15-427

VOLATILE ORGANIC LIQUID STORAGE TANK EMISSIONS**PURPOSE OF NOTICE**

The Indiana Department of Environmental Management (IDEM) is soliciting public comment on amendments to rules at [326 IAC 8-9](#) concerning stationary liquid storage vessels used to store volatile organic liquids (VOL) that are located in Clark, Floyd, Lake, or Porter counties. IDEM seeks comment on the affected citations listed and any other provisions of Title 326 that may be affected by this rulemaking.

HISTORY

First Notice of Comment Period: December 16, 2015, Indiana Register (DIN: [20151216-IR-326150427FNA](#)).

CITATIONS AFFECTED: [326 IAC 8-9-1](#); [326 IAC 8-9-2](#); [326 IAC 8-9-3](#); [326 IAC 8-9-4](#); [326 IAC 8-9-5](#); [326 IAC 8-9-6](#).

AUTHORITY: [IC 13-14-8-2](#); [IC 13-17-3-4](#).

SUBJECT MATTER AND BASIC PURPOSE OF RULEMAKING**Basic Purpose and Background**

IDEM received a request to allow industry sources to use an alternative inspection method to demonstrate compliance with [326 IAC 8-9](#) concerning VOL storage vessels. This rule applies to sources in Clark, Floyd, Lake, and Porter counties that use large storage vessels to store VOLs that are primarily in the petroleum refining, storage, and distribution industry. This rule is applicable to these four counties because these areas have previously been designated by the United States Environmental Protection Agency (U.S. EPA) as nonattainment for ozone, and, therefore, these requirements must remain in the state rules. Pursuant to [326 IAC 8-1-5](#), a source may petition IDEM to request a site-specific Reasonably Available Control Technology (RACT) plan as an alternative compliance method to the requirements specified in [326 IAC 8](#). These large storage vessels contain petroleum products that have the potential to release volatile organic compounds (VOC) to the atmosphere during the filling and emptying processes. Tanks that are subject to any provision of the New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels (40 CFR 60, Subpart Kb) are exempt from this rule.

U.S. EPA has established National Ambient Air Quality Standards (NAAQS) for ozone that are designed to protect human health and the environment. Ozone is formed through a photochemical reaction with certain VOCs and nitrogen oxides (NOx) that react in the presence of sunlight and warm temperatures. VOCs are present in many industries and activities, including surface coating, furniture finishing, automobile refinishing, organic solvent degreasing, industrial adhesives, and all petroleum sources.

Indiana's rule at [326 IAC 8-9](#) requires an inspection process for each affected tank at specific time intervals. If a tank is in use when it is time for an inspection, the tank must be emptied, degassed, inspected, and then refilled. This requirement is not only costly to sources because of the downtime and raw materials spent on this inspection process, but it also actually increases VOC emissions and, therefore, potential ozone formation, each time the tank is emptied, degassed, and refilled. This rulemaking would provide affected sources the flexibility to comply with the inspection requirements using alternative inspection methods to inspect while the tank is still in use, rather than emptying it for the purpose of inspections.

This rule also clarifies language for clarity, and addresses an inconsistency in the language in two separate parts of the existing rule regarding the calculation of maximum true vapor pressure (MTVP), and updates several references, makes corrections, and addresses standard language and style changes that have occurred over time since this rule was last revised. IDEM has been discussing this rulemaking with U.S. EPA and will continue to coordinate with U.S. EPA during the rulemaking. The final rule will be submitted to U.S. EPA for approval as an amendment to the state implementation plan.

In the First Notice of Comment Period, published in the Indiana Register on December 16, 2015, IDEM sought comment from the public on whether to expand the applicability to all sources statewide to offer them the opportunity to also use alternative inspection methods to inspect while the tank is in use. IDEM received a comment to keep the scope of the applicability as it currently applies, and not expand it statewide because it would cause some sources located in other counties across the state to be subject to new requirements in order to utilize the inspection benefit. Therefore, upon further consideration, IDEM has agreed that the applicability should only include the current four counties and not be expanded statewide. IDEM seeks comment on the affected citations listed, including suggestions for specific language, any other provisions of Title 326 that may be

affected by this rulemaking, and alternative ways to achieve the purpose of the rulemaking.

[IC 13-14-9-4](#) Identification of Restrictions and Requirements Not Imposed under Federal Law

No element of the draft rule imposes either a restriction or a requirement on persons to whom the draft rule applies that is not imposed under federal law.

Potential Fiscal Impact

This rulemaking will have a potential positive fiscal impact for each affected source in Clark, Floyd, Lake, and Porter counties, as the tanks become due for inspections because the costs of downtime and raw material to take a tank offline for an inspection could be eliminated or reduced. Additionally, this alternative will have a positive fiscal impact for the general public by reducing ozone emissions, which will improve the health of the public and, therefore, help to reduce health care costs. It will also help Indiana meet the new ozone NAAQS adopted by U.S. EPA. As counties become designated as attainment for the ozone standard because of cleaner air, there is potentially a positive economic impact on the area because it becomes more attractive to both residents and businesses.

Public Participation and Work Group Information

At this time, no work group is planned for the rulemaking. If you feel that a work group or other informal discussion on the rule is appropriate, please contact Jack Harmon, Rules Development Branch, Office of Legal Counsel at (317) 234-9535 or (800) 451-6027 (in Indiana).

SUMMARY/RESPONSE TO COMMENTS FROM THE FIRST COMMENT PERIOD

IDEM requested public comment from December 16, 2015, through January 15, 2016, on alternative ways to achieve the purpose of the rule and suggestions for the development of draft rule language. IDEM received comments from the following party by the comment period deadline:

SABIC Innovative Plastics US LLC, Mount Vernon, Indiana (SABIC)

Following is a summary of the comments received and IDEM's responses thereto:

Comment: The commenter stated support for IDEM's proposal to allow an alternative inspection method to demonstrate compliance with the emission limits. The commenter agrees that it will likely be a financial advantage to those regulated entities using the alternative methods, and that the new method would reduce VOC emissions during the required inspections. (SABIC)

Response: IDEM appreciates the support from the commenter, and agrees that VOC emissions may be reduced under the proposed rulemaking.

Comment: IDEM should keep the scope of applicability limited to the current counties of Lake, Porter, Clark, and Floyd, and not expand to the rest of the state of Indiana. Sources in other counties are not currently subject to the rule, and imposing a requirement where the rule doesn't even apply is just adding another group of requirements, with no benefit. (SABIC)

Response: The Clean Air Act Amendments of 1990 required that states in areas that were designated as ozone nonattainment at a level of moderate or worse, develop plans to reduce emissions of VOCs, precursors to ozone, by 15% by 1996. The areas in Indiana designated nonattainment for ozone at the level of moderate or worse were Clark, Floyd, Lake, and Porter counties. VOL storage vessels were among the categories of sources for which the U.S. EPA issued Control Technique Guidelines (CTG) for states to use in order to achieve and maintain the 15% reduction in VOCs. The provisions in [326 IAC 8-9-5](#) were based on the CTG for VOL storage vessels. Therefore, IDEM agrees that the applicability of this rule should not be expanded beyond Clark, Floyd, Lake, and Porter counties.

Comment: Pursuant to [326 IAC 8-9-1](#), any tank that is subject to the requirements of NSPS Subpart Kb is exempt from the requirements of this rule. This concept should be expanded to include any storage tank that stores an organic hazardous air pollutant (OHAP) that is also a VOC, and that is subject to any provision of a 40 CFR 63 Maximum Achievable Control Technology (MACT) standard. When a MACT standard requires control requirements on a tank, the controls are very similar to those required in this rule. If a MACT standard doesn't require controls, its requirements are comparable to those of Subpart Kb when no control is required under federal rule. The MACT standards should form the basis for an exemption from this rule, just as Subpart Kb does. (SABIC)

Response: IDEM has discussed the possible changes to the VOL RACT rule with U.S. EPA. IDEM and U.S. EPA agree that, if a source is complying with the control requirements in 40 CFR 63, Subpart WW (National Emission Standards for Storage Vessels), that it would be reasonable to exempt that source from the RACT requirements in [326 IAC 8-9](#). However, 40 CFR 63, Subpart WW has no explicit applicability criteria, but is, instead, referenced by other subparts. Therefore, appropriate language will need to be inserted into the exemption clause to make the exemption acceptable. The IDEM draft rule has been changed to include some exemption language, and the National Emission Standard for Hazardous Air Pollutants at 40 CFR 63, Subpart WW will be incorporated by reference into the rule.

Comment: Please change the pounds per square inch absolute (psia) threshold in [326 IAC 8-9](#) (0.5000 psia) to be the same as the psia threshold in NSPS Subpart Kb (0.5076 psia); it would be less confusing and more consistent to have one standard. (SABIC)

Response: The initial rulemaking was intended to simplify the inspection requirements for tank owners as well as ensure that VOC emissions are not increased by otherwise unscheduled emptying and degassing of tanks. IDEM has not changed the applicability exemption threshold in [326 IAC 8-9-1\(c\)](#). The standards set forth in [326 IAC 8-9-4](#) only apply to tanks equal to or greater than 39,000 gallons that store VOL with a maximum true vapor pressure of greater than or equal to 0.75 psia. Likewise, the requirements of [326 IAC 8-9-5](#) only apply to tanks subject to the standards set forth in [326 IAC 8-9-4](#). Changing the applicability threshold in [326 IAC 8-9-1\(c\)](#) would subject fewer VOL tanks to the record keeping requirements of [326 IAC 8-9-6](#) and would constitute a lessening of the stringency of the requirement, or backsliding. Federal law does not allow backsliding, therefore, the applicability threshold has not been changed.

REQUEST FOR PUBLIC COMMENTS

This notice requests the submission of comments on the draft rule language, including suggestions for specific revisions to language to be contained in the draft rule. Comments may be submitted in one of the following ways:

(1) By mail or common carrier to the following address:

LSA Document #15-427 Volatile Organic Liquid Storage Tanks
Jack Harmon
Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
Indiana Government Center North
100 North Senate Avenue
Indianapolis, IN 46204-2251.

(2) By facsimile to (317) 233-5970. Please confirm the timely receipt of faxed comments by calling the Rules Development Branch at (317) 232-8922.

(3) By electronic mail to jaharmon@idem.in.gov. To confirm timely delivery of submitted comments, please request a document receipt when sending the electronic mail. PLEASE NOTE: Electronic mail comments will NOT be considered part of the official written comment period unless they are sent to the address indicated in this notice.

(4) Hand delivered to the receptionist on duty at the thirteenth floor reception desk, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, Indiana.

Regardless of the delivery method used, to properly identify each comment with the rulemaking action it is intended to address, each comment document must clearly specify the LSA document number of the rulemaking.

COMMENT PERIOD DEADLINE

All comments must be postmarked, faxed, or time stamped not later than October 27, 2017. Hand-delivered comments must be delivered to the appropriate office by 4:45 p.m. on the above-listed deadline date.

Additional information regarding this action may be obtained from Jack Harmon, Rules Development Branch, Office of Legal Counsel, (317) 234-5935 or (800) 451-6027 (in Indiana).

DRAFT RULE

SECTION 1. [326 IAC 8-9-1](#) IS AMENDED TO READ AS FOLLOWS:

[326 IAC 8-9-1](#) Applicability

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#)

Affected: [IC 13-17](#)

Sec. 1. (a) ~~On and after October 1, 1995,~~ This rule applies to stationary vessels used to store volatile organic liquid (VOL) that are located in Clark, Floyd, Lake, or Porter ~~County~~ **counties**.

(b) Stationary vessels with a capacity of less than thirty-nine thousand (39,000) gallons are:

- (1) subject to the reporting and record keeping provisions of section 6(a) and 6(b) of this rule; and ~~are~~
- (2) exempt from all other provisions of this rule.

(c) Stationary vessels with a capacity **greater than or equal to** ~~or greater than~~ thirty-nine thousand (39,000) gallons that store a VOL with a maximum true vapor pressure **greater than or equal to** ~~or greater than~~ five-tenths (0.5) pound per square inch absolute (psia) but less than seventy-five hundredths (0.75) psia are:

- (1) subject to the provisions of section 6(a), 6(b), 6(g), and 6(h) of this rule; and ~~are~~

(2) exempt from all other provisions of this rule.

(d) Stationary vessels located in Clark, Floyd, Lake, or Porter counties that are not described in subsection (b) or (c) are subject to all provisions of this rule.

(Air Pollution Control Division; [326 IAC 8-9-1](#); filed Dec 19, 1995, 3:10 p.m.: 19 IR 1056)

SECTION 2. [326 IAC 8-9-2](#) IS AMENDED TO READ AS FOLLOWS:

[326 IAC 8-9-2](#) Exemptions

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#)

Affected: [IC 13-17](#)

Sec. 2. This rule does not apply to the following vessels:

- (1) Vessels at coke oven byproduct plants.
- (2) Pressure vessels designed to operate in excess of twenty-nine and four-tenths (29.4) pounds per square inch absolute and without emissions to the atmosphere.
- (3) Vessels that are permanently attached to mobile vehicles such as trucks, rail cars, barges, or ships.
- (4) Vessels with a design capacity less than or equal to four hundred twenty thousand (420,000) gallons used for petroleum or condensate stored, processed, or treated prior to custody transfer.
- (5) Vessels located at bulk gasoline plants.
- (6) Storage vessels located at gasoline service stations.
- (7) Vessels used to store beverage alcohol.
- (8) Stationary vessels that are:
 - (A) subject to any provision of 40 CFR 60, Subpart Kb*; ~~New Source Performance Standard for Volatile Organic Liquid Storage*~~
 - (B) **complying with the control requirements in 40 CFR 63.1063*.**

*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Legal Counsel, Indiana Government Center North, ~~Tenth~~ **Thirteenth** Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.

(Air Pollution Control Division; [326 IAC 8-9-2](#); filed Dec 19, 1995, 3:10 p.m.: 19 IR 1056; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1568; filed Aug 26, 2004, 11:30 a.m.: 28 IR 51)

SECTION 3. [326 IAC 8-9-3](#) IS AMENDED TO READ AS FOLLOWS:

[326 IAC 8-9-3](#) Definitions

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#)

Affected: [IC 13-17](#)

Sec. 3. The following definitions apply throughout this rule:

- (1) "Condensate" means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.
- (2) "Custody transfer" means the transfer of produced petroleum and condensate, or both, after processing or treatment, or both, in the producing operations, from storage vessels or automatic transfer facilities to pipelines or any other forms of transportation.
- (3) "Fill" means the introduction of VOL into a storage vessel but not necessarily to complete capacity.
- (4) "Gasoline service station" means any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage vessels.
- (5) "Maximum true vapor pressure" means the equilibrium partial pressure exerted by a ~~volatile organic liquid~~. ~~The maximum true vapor pressure of VOLs stored at or above the ambient temperature shall correspond to the highest calendar month average storage temperature and shall be determined as follows:~~ **VOL.**
 - (A) ~~Maximum true vapor pressure for VOLs stored at or above the ambient temperature shall be determined using the following procedures:~~
 - (i) ~~For gasolines and naphtha, either of the following:~~
 - (AA) ~~Figures 17A and 17B, American Petroleum Institute Publication 2517, Third Edition, February 1989,~~

- ~~with addendum, May 1994*.
(BB) Figure 4.3-6, AP-42*, Compilation of Air Pollutant Emission Factors, Volume I (Stationary Point and Area Sources), Fourth Edition, September 1985*.~~
- (ii) For crude oils, either of the following:
(AA) Figures 18A and 18B, American Petroleum Institute Publication 2517, Third Edition, February 1989, with addendum, May 1994*.
(BB) Figure 4.3-5, AP-42*, Compilation of Air Pollutant Emission Factors, Volume I (Stationary Point and Area Sources), Fourth Edition, September 1985*.
- (iii) For VOLs, other than those in item (i) or (ii), procedures on page D-146, Vapor Pressures, Critical Temperatures, and Critical Pressures of Organic Compounds, Handbook of Chemistry and Physics, 51st Edition, 1970-1971, Chemical Rubber Company*.
- (iv) Maximum true vapor pressure for VOLs stored at or above ambient temperatures shall be determined at the following temperatures:
(AA) In Lake and Porter Counties, seventy three (73) degrees Fahrenheit.
(BB) In Clark and Floyd Counties, seventy seven and seven tenths (77.7) degrees Fahrenheit.
(B) Alternatively, the owner or operator or the department and the U.S. EPA may require measurement of vapor pressure. ASTM Method D323-92* or a method acceptable to the department and U.S. EPA shall be used. If a discrepancy exists between the results obtained from methods in clause (A) and methods used in this clause, the results in this clause shall prevail.
- (6) "Petroleum" means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.
- (7) "Petroleum liquids" means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery.
- (8) "Reid vapor pressure" means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquified petroleum gases as determined by the following methods:
(A) For gasoline, only, ASTM D323-82*.
(B) For gasoline-ethanol blends, ASTM D-5190*, ASTM D-5191*, ASTM 5482*.
- (9) "Seal gap" means the gap areas and maximum gap widths between the:**
(A) primary seal and the wall of the vessel; and
(B) secondary seal and the wall of the vessel.
- ~~(9)~~ **(10) "Vessel" means each tank, reservoir, or container used for the storage of VOLs but does not include either of the following:**
(A) Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of liquids or vapors.
(B) Subsurface caverns or porous rock reservoirs.
- ~~(10)~~ **(11) "Volatile organic liquid" or "VOL" means any organic liquid that can emit volatile organic compounds (VOCs) into the atmosphere except those VOLs that emit only those compounds that the department has determined do not contribute appreciably to the formation of ozone, as defined in [326 IAC 1-2-90](#).**
- ~~(11)~~ **(12) "Waste" means any liquid resulting from industrial, commercial, mining, or agricultural operations, or from community activities that is discarded or is being accumulated, stored, or physically, chemically, or biologically treated prior to being discarded or recycled.**

*These documents are incorporated by reference. Copies ~~may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401~~ or are available **from the American Society for Testing and Materials, 100 Barr Harbor Drive, Conshohocken, Pennsylvania 19428** or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, **Legal Counsel**, Indiana Government Center North, ~~Tenth~~ **Thirteenth** Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.

**These documents are incorporated by reference. Copies are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.

(Air Pollution Control Division; [326 IAC 8-9-3](#); filed Dec 19, 1995, 3:10 p.m.: 19 IR 1056; errata filed Dec 19, 1995, 3:15 p.m.: 19 IR 1141; errata, 19 IR 1372; errata filed Apr 9, 1996, 2:30 p.m.: 19 IR 2045; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1568; filed Aug 26, 2004, 11:30 a.m.: 28 IR 51)

SECTION 4. [326 IAC 8-9-4](#) IS AMENDED TO READ AS FOLLOWS:

[326 IAC 8-9-4](#) Standards

Sec. 4. (a) The owner or operator of each vessel with a capacity greater than or equal to thirty-nine thousand (39,000) gallons, that stores VOL with a maximum true vapor pressure greater than or equal to seventy-five hundredths (0.75) pound per square inch absolute (psia) but less than eleven and one-tenth (11.1) psia shall ~~do~~ **complete** the following:

(1) ~~On or before May 1, 1996~~, For each vessel having a permanently affixed roof, install one (1) of the following:

- (A) An internal floating roof meeting the standards in subsection (c).
- (B) A closed vent system and control device meeting the standards in subsection (d).
- (C) An equivalent emissions control system, **that has been approved by the department and U.S. EPA and determined to be equivalent**, resulting in equivalent emissions reductions to that obtained in clause (A).

(2) For each vessel having an internal floating roof, install one (1) of the following:

- (A) ~~At the time of the next scheduled cleaning, but not later than ten (10) years after May 1, 1996~~, An internal floating roof meeting the standards in subsection (c).
- (B) ~~On or before May 1, 1996~~, A closed vent system and control device meeting the standards in subsection (d).
- (C) ~~On or before May 1, 1996~~, An equivalent emissions control system, **that has been approved by the department and U.S. EPA and determined to be equivalent**, resulting in equivalent emissions reductions to that obtained in clause (A).

(3) For each vessel having an external floating roof, install one (1) of the following:

- (A) ~~At the time of the next scheduled cleaning, but not later than ten (10) years after May 1, 1996~~, An external floating roof meeting the standards in subsection (e).
- (B) ~~On or before May 1, 1996~~, A closed vent system meeting the standards in subsection (d).
- (C) ~~On or before May 1, 1996~~, An equivalent emissions control system, **that has been approved by the department and U.S. EPA and determined to be equivalent**, resulting in equivalent emissions reductions to that obtained in clause (A).

(4) For each vessel subject to this subsection, ~~the owner or operator described in the report required in section 6(b) of this rule~~, **either**:

- (A) ~~install one (1) of the following~~: (A) emission control equipment; **or**
- (B) **submit** a schedule for vessel cleaning and installation of ~~the~~ emission control equipment.

(b) ~~On or before May 1, 1996~~, The owner or operator of each vessel with a capacity greater than or equal to thirty-nine thousand (39,000) gallons, that stores VOL with a maximum true vapor pressure greater than or equal to eleven and one-tenth (11.1) psia shall equip each vessel with a closed vent system with a control device meeting the standards of subsection (d).

(c) Standards applicable to each internal floating roof are as follows:

- (1) The internal floating roof ~~shall~~ **must** float on the liquid surface, but not necessarily in complete contact with it, inside a vessel that has a permanently affixed roof.
- (2) The internal floating roof ~~shall be floating~~ **must float** on the liquid surface at all times, except during initial fill and during those intervals when the vessel is completely emptied or subsequently emptied and refilled.
- (3) When the roof is resting on the leg supports, the process of filling, emptying, or refilling ~~shall~~ **must** be continuous and shall be accomplished as rapidly as possible.
- (4) Each internal floating roof ~~shall~~ **must** be equipped with one (1) of the following closure devices between the wall of the vessel and the edge of the internal floating roof:
 - (A) A foam or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal).
 - (B) Two (2) seals mounted one (1) above the other so that each forms a continuous closure that completely covers the space between the wall of the vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.
 - (C) A mechanical shoe seal that consists of a metal sheet held vertically against the wall of the vessel by springs or weighted levers and that is connected by braces to the floating roof. A flexible coated fabric, or envelope, ~~spans~~ **must span** the annular space between the metal sheet and the floating roof.
- (5) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents ~~shall~~ **must** provide a projection below the liquid surface.
- (6) **Openings in the internal floating roof must meet the following requirements**:
 - (A) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains ~~shall~~ **must** be equipped with a cover or lid

that ~~shall be~~ **is** maintained in a closed position at all times, with no visible gap, except when the device is in actual use.

(B) The cover or lid ~~shall~~ **must** be equipped with a gasket.

(C) Covers on each access hatch and automatic gauge float well ~~shall~~ **must** be bolted except when they are in use.

(7) Automatic bleeder vents ~~shall~~ **must** be:

(A) equipped with a gasket; and ~~shall be~~

(B) closed at all times when the roof is floating except when the roof is being:

(i) floated off; or ~~is being~~

(ii) landed on the roof leg supports.

(8) Rim space vents ~~shall~~ **must** be:

(A) equipped with a gasket; and ~~shall be~~

(B) set:

(i) to open ~~only~~ when the internal floating roof is not floating; or

(ii) at the manufacturer's recommended setting.

(9) Each penetration of the internal floating roof for the purpose of sampling ~~shall~~ **must** be **through** a sample well **opening**. The sample well ~~shall~~ **must** have a slit fabric cover that covers at least ninety percent (90%) of the opening.

(10) Each penetration of the internal floating roof that allows for passage of a ladder ~~shall~~ **must** have a gasketed sliding cover.

(d) Standards applicable to each closed vent system and control device are as follows:

(1) The closed vent system ~~shall~~ **must** be:

(A) designed to collect all VOC vapors and gases discharged from the vessel; and

(B) operated with no detectable emission as indicated by:

(i) an instrument reading of less than five hundred (500) parts per million (ppm) above background; and

(ii) visual inspections as determined by the methods specified in ~~40 CFR 60, Subpart VV, 60.485(C):~~ **40**

CFR 60.485(c)*.

(2) The control device ~~shall~~ **must** be designed and operated to reduce inlet VOC emissions by **at least** ninety-five percent (95%). ~~or greater.~~ If a flare is used as the control device, it ~~shall~~ **must** meet the specifications described in the general control device requirements in 40 CFR 60.18*. ~~General Provisions*.~~

(e) Standards applicable to each external floating roof are as follows:

(1) Each external floating roof ~~shall~~ **must** be equipped with a closure device between the wall of the vessel and the roof edge. ~~The closure device shall consist~~ **consisting** of two (2) seals, **with** one (1) above the other, **as follows:**

(A) The lower seal ~~shall be referred to as~~ **is** the primary seal.

(B) The upper seal ~~shall be referred to as~~ **is** the secondary seal.

(2) Except as provided in section 5(c)(4) of this rule, the primary seal ~~shall~~ **must:**

(A) completely cover the annular space between the edge of the floating roof and vessel wall; and ~~shall~~

(B) be either a:

(i) liquid-mounted seal; or a

(ii) shoe seal.

(3) **Except as allowed in section 5(c)(4) of this rule,** the secondary seal ~~shall~~ **must** completely cover the annular space between the external floating roof and the wall of the vessel in a continuous fashion. ~~except as allowed in section 5(c)(4) of this rule.~~

(4) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof ~~shall~~ **must** provide a projection below the liquid surface.

(5) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof ~~shall~~ **must** be equipped with a gasketed cover, seal, or lid that ~~shall be~~ **is** maintained in a closed position at all times, without visible gap, except when the device is in actual use.

(6) Automatic bleeder vents ~~shall~~ **must** be:

(A) equipped with a gasket; and

(B) closed at all times when the roof is floating except when the roof is being:

(i) floated off; or ~~is being~~

(ii) landed on the roof leg supports.

(7) Rim vents ~~shall~~ **must** be:

(A) equipped with a gasket; and

(B) set:

(i) to open when the roof is being floated off the roof leg supports; or

(ii) at the manufacturer's recommended setting. ~~Automatic bleeder vents and rim space vents shall be gasketed.~~

(8) Each emergency roof drain shall **must** be provided with a slotted membrane fabric cover that covers at least ninety percent (90%) of the area of the opening.

(9) The roof shall be floating **must float** on the liquid at all times, ~~for example, off the roof leg supports,~~ except when the vessel is completely emptied and subsequently refilled.

(10) The process of filling, emptying, or refilling when the roof is resting on the leg supports shall **must** be continuous and shall be accomplished as rapidly as possible.

*These documents are incorporated by reference. Copies may be obtained from the Government ~~Printing~~ **Publishing** Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review ~~and copying~~ at the Indiana Department of Environmental Management, Office of Air Quality, **Legal Counsel**, Indiana Government Center North, ~~Tenth~~ **Thirteenth** Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.

(Air Pollution Control Division; [326 IAC 8-9-4](#); filed Dec 19, 1995, 3:10 p.m.: 19 IR 1057; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1568; filed Aug 26, 2004, 11:30 a.m.: 28 IR 52)

SECTION 5. [326 IAC 8-9-5](#) IS AMENDED TO READ AS FOLLOWS:

[326 IAC 8-9-5](#) Testing and procedures

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#)

Affected: [IC 13-17](#)

Sec. 5. (a) The owner or operator of each vessel subject to section 4(a) of this rule shall meet the **applicable** requirements of subsection (b), (c), or (d).

(b) ~~On and after May 1, 1996,~~ Except as provided in section 4(a)(2) of this rule, the owner or operator of each vessel equipped with an internal floating roof shall meet the following requirements:

(1) **Prior to filling the vessel with VOL, the owner or operator shall do the following:**

(A) Visually inspect the:

(i) internal floating roof; ~~the~~

(ii) primary seal; and ~~the~~

(iii) secondary seal, if one is in service. ~~prior to filling the vessel with VOL.~~

(B) **Conduct repairs prior to filling the vessel** if there are:

(i) holes, tears, or other openings in the:

(AA) primary seal; ~~the~~

(BB) secondary seal; or ~~the~~

(CC) seal fabric; or

(ii) defects in the internal floating roof. ~~or both, the owner or operator shall repair the items before filling the vessel.~~

(2) For vessels equipped with a liquid-mounted or mechanical shoe primary seal, **complete the following:**

(A) Visually inspect the internal floating roof, ~~and the primary seal, or the~~ **and** secondary seal if one is in service:

(i) through manholes and roof hatches on the fixed roof; **and**

(ii) at least once every twelve (12) months after ~~the~~ initial fill.

(B) **Conduct repairs or empty and remove the vessel from service within forty-five (45) days** if:

(i) the internal floating roof is not resting on the surface of the VOL inside the vessel; ~~or~~

(ii) there is liquid accumulated on the roof; ~~or~~

(iii) the seal is detached; or

(iv) there are holes or tears in the seal fabric. ~~the owner or operator shall repair the items or empty and remove the vessel from service within forty-five (45) days.~~

(C) **The owner or operator may request a thirty (30) day extension to the requirement in clause (B) as follows:**

(i) **The extension may be requested from the department** if:

(AA) a failure that is detected during inspections required in this section cannot be repaired in forty-five (45) days; and if

(BB) the vessel cannot be emptied within forty-five (45) days. ~~a thirty (30)-day extension may be requested from the department~~

(ii) **A request for an extension must:**

~~(AA) be made~~ in the inspection report required in section 6(c)(3) of this rule; ~~Such a request for an extension must:~~

~~(BB) document that alternate storage capacity is unavailable; and~~

~~(CC) specify a schedule of actions the company owner or operator will take that will assure ensure that the control equipment will be repaired or the vessel will be emptied as soon as possible.~~

(3) For vessels equipped with both primary and secondary seals, **visually inspect the vessel as specified in:**

(A) ~~visually inspect the vessel as specified in subdivision (4), at least every five (5) years; or~~

(B) ~~visually inspect the vessel as specified in subdivision (2).~~

(4) **Each time the vessel is emptied and degassed, complete the following:**

(A) Visually inspect the:

(i) internal floating roof; the

(ii) primary seal; the

(iii) secondary seal, if one is in service;

(iv) gaskets;

(v) slotted membranes; and

(vi) sleeve seals. ~~each time the vessel is emptied and degassed. If~~

(B) Perform an internal out-of-service inspection in accordance with 40 CFR 60.113b(a)(4)*.

(C) Conduct repairs as necessary before refilling the vessel with VOL so that none of the following conditions exist:

(i) The internal floating roof has defects.

(ii) The primary seal has holes, tears, or other openings in the seal or the seal fabric. ~~or~~

(iii) The secondary seal has holes, tears, or other openings in the seal or the seal fabric. ~~or~~

(iv) The gaskets no longer close off the liquid surfaces from the atmosphere. ~~or~~

(v) The slotted membrane has more than ten percent (10%) open area. ~~the owner or operator shall repair the items as necessary so that none of the conditions specified in this subdivision exist before refilling the vessel with VOL. In no event shall the inspections required by this subsection occur at intervals greater than ten (10) years in the case of vessels conducting~~

(5) **If a vessel that is subject to the annual visual inspection as specified in subdivisions (2) and (3)(B) and at intervals no greater than five (5) years in the case of vessels has not been emptied and degassed within ten (10) years, or if a vessel specified in subdivision (3)(A) has not been emptied and degassed within five (5) years, conduct an inspection while the vessel is in service in:**

(A) accordance with 40 CFR 63.1063(d)(1)(i) through 40 CFR 63.1063(d)(1)(v)*; and

(B) its entirety from the top side of the internal floating roof.

~~(5)~~ (6) **Provide notification to the department as follows:**

(A) Except under clause (B), notify the department in writing at least thirty (30) days prior to the filling or refilling of each vessel for which an inspection is required by subdivisions (1) and (4) to afford the department the opportunity to have an observer present.

(B) Notify the department at least seven (7) days prior to the refilling of the vessel in accordance with clause (C) if:

(i) the inspection required by subdivision (4) is not planned; and

(ii) the owner or operator could not have known about the inspection thirty (30) days in advance of refilling the vessel. ~~the owner or operator shall notify the department at least seven (7) days prior to the refilling of the vessel.~~

(C) Notification shall under clause (B) must be made:

(i) by telephone immediately followed by written documentation demonstrating why the inspection was unplanned; ~~Alternatively, this notification, including the written documentation, may be made or~~

(ii) in writing, **including documentation**, and sent, **either electronically or** by express mail so that it is received by the department at least seven (7) days prior to the refilling.

(c) ~~On and after May 1, 1996,~~ Except as provided in section 4(a)(3) of this rule, the owner or operator of each vessel equipped with an external floating roof shall meet the following requirements:

(1) ~~Determine the gap areas and maximum gap widths between the primary seal and the wall of the vessel and between the secondary seal and the wall of the vessel according to the following frequency: seal gaps as follows:~~

(A) Measurements of gaps between the vessel wall and the primary seal ~~(seal gaps) shall must be performed:~~

(i) during the hydrostatic testing of the vessel or within sixty (60) days of the initial fill with VOL; and

(ii) at least once every five (5) years thereafter.

(B) Measurements of gaps between the vessel wall and the secondary seal shall **must** be performed:

- (i) within sixty (60) days of the initial fill with VOL; and
(ii) at least once per year thereafter.
- (C) If any source ceases to store VOL for a period of one (1) year or more, subsequent introduction of VOL into the vessel ~~shall be~~ **is** considered an initial fill for purposes of this subdivision.
- (2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:
- (A) Measure seal gaps, if any, at one (1) or more floating roof levels when the roof is floating off the roof leg supports.
- (B) Measure seal gaps around the entire circumference of the vessel in each ~~place~~ **location** where a one-eighth (1/8) inch diameter uniform probe passes freely ~~(without forcing or binding against seal)~~ between the seal and the wall of the vessel, **without forcing or binding against the seal**, and measure the circumferential distance of each ~~such~~ location.
- (C) The total surface area of each gap described in clause (B) ~~shall~~ **must** be determined by:
- (i) using probes of various widths to measure accurately the actual distance from the vessel wall to the seal; and
(ii) multiplying each ~~such~~ width by its respective circumferential distance.
- (3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each by the nominal diameter of the vessel and compare each ratio to the respective standards in subdivision (4).
- (4) Make necessary repairs or empty the vessel within forty-five (45) days of identification of **the** seals not meeting the requirements listed in clauses (A) ~~and (B)~~ **through (C)** as follows:
- (A) The accumulated area of gaps between the vessel wall and the mechanical shoe or liquid-mounted primary seal ~~shall~~ **must** not exceed ten (10) square inches per foot of vessel diameter, and the width of any portion of any gap ~~shall~~ **must** not exceed one and five-tenths (1.5) inches.
- (B)** There ~~shall~~ **must** be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.
- ~~(B)~~ **(C)** The secondary seal ~~shall~~ **must** meet the following requirements:
- (i) The secondary seal ~~shall~~ **must** be installed above the primary seal so that it completely covers the space between the roof edge and the vessel wall except as provided in subdivision (2)(C).
- (ii) The accumulated area of gaps between the vessel wall and the secondary seal used in combination with a metallic shoe or liquid-mounted primary seal ~~shall~~ **must** not exceed one (1) square inch per foot of vessel diameter, and the width of any portion of any gap shall not exceed five-tenths (0.5) inch.
- (iii)** There ~~shall~~ **must** be no gaps between the vessel wall and the secondary seal when used in combination with a vapor-mounted primary seal.
- ~~(iii)~~ **(iv)** There ~~shall~~ **must** be no holes, tears, or other openings in the seal or seal fabric.
- ~~(D)~~ **(D)** **The owner or operator may request a thirty (30) day extension to the requirements of this subdivision as follows:**
- (i) The extension may be requested from the department if:**
- (AA)** a failure that is detected during inspections required in subdivision (1) cannot be repaired within forty-five (45) days; and if
(BB) the vessel cannot be emptied within forty-five (45) days. ~~a thirty (30) day extension may be requested from the department~~
- (ii) A request for an extension must:**
- (AA)** **be made** in the inspection report required in section 6(d)(3) of this rule; ~~Such extension request must include a demonstration of unavailability of~~
(BB) **document that alternate storage capacity is unavailable;** and ~~a specification of~~
(CC) **specify** a schedule **the owner or operator will take** that will **assure ensure** that the control equipment will be repaired or the vessel will be emptied as soon as possible.
- (5) Notify the department thirty (30) days in advance of any gap measurements required by subdivision (1) to afford the department the opportunity to have an observer present.
- (6) **Prior to filling the vessel with VOL, complete the following:**
- (A)** Visually inspect the:
- (i)** external floating roof; ~~the~~
(ii) primary seal;
(iii) secondary seal; and
(iv) fittings. ~~each time the vessel is emptied and degassed. For all visual inspections, the following requirements apply:~~
- ~~(A)~~ **(B) Conduct repairs as necessary before filling or refilling the vessel with VOL so that none of the following conditions exist:**
- (i)** The external floating roof has defects.
(ii) The primary seal has holes, tears, or other openings in the seal or the seal fabric. ~~or~~
(iii) The secondary seal has holes, tears, or other openings in the seal fabric. ~~the owner or operator shall~~

~~repair the items as necessary so that none of the conditions specified in this clause exist before filling or refilling the vessel with VOL.~~

~~(B) The owner or operator shall~~

(C) Provide notification to the department as follows:

(i) Notify the department in writing at least thirty (30) days prior to the filling or refilling of each vessel to afford the department the opportunity to inspect the vessel prior to the filling.

(ii) Notify the department at least seven (7) days prior to the refilling of the vessel if the:

(AA) inspection required by this subdivision is not planned; and the

(BB) owner or operator could not have known about the inspection thirty (30) days in advance of refilling the vessel. ~~the owner or operator shall notify the department at least seven (7) days prior to the refilling of the vessel.~~

(iii) Notification shall under item (ii) must be made:

(AA) by telephone immediately followed by written documentation demonstrating why the inspection was unplanned; ~~Alternatively, this notification including the written documentation may be made or~~

(BB) in writing, **including documentation**, and sent, **either electronically or** by express mail so that it is received by the department at least seven (7) days prior to the refilling.

(d) The owner or operator of each vessel that is equipped with a closed vent system and control device described in section 4(a)(1)(B), 4(a)(2)(B), or 4(a)(3)(B) of this rule and meeting the requirements of section 4(d) of this rule, other than a flare, shall meet the following requirements:

~~(1) On or before January 1, 1996,~~ **Prior to the initial filling of the vessel**, submit to the department an operating plan containing the following information:

(A) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions ~~This documentation shall include:~~ **including the following:**

(i) A description of the gas stream that enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static). ~~and~~

(ii) The manufacturer's design specifications for the control device.

(iii) If the control device or the closed vent capture system receives vapor gases, or liquid other than fuels from sources that are not subject to this rule, the efficiency demonstration ~~shall~~ **must** include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device.

(iv) If an enclosed combustion device with a minimum residence time of seventy-five hundredths (0.75) second and a minimum temperature of eight hundred sixteen (**816**) degrees Centigrade (~~816°C~~) is used to meet the ninety-five percent (95%) requirement, documentation that those conditions will exist is sufficient to meet the requirements of this subdivision.

(B) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used to monitor the parameter or parameters.

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the department in accordance with subdivision (1) unless the plan was modified by the department during the review process, in ~~this~~ **which** case the modified plan applies.

(e) The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in section 4(a)(4) or 4(d) of this rule shall meet the requirements specified in the general control device requirements in 40 CFR 60.18(e)* and 40 CFR 60.18(f)*.

*These documents are incorporated by reference. Copies may be obtained from the Government ~~Printing~~ **Publishing** Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review ~~and copying~~ at the Indiana Department of Environmental Management, Office of Air Quality, **Legal Counsel**, Indiana Government Center North, ~~Fifth~~ **Thirteenth** Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.

(Air Pollution Control Division; [326 IAC 8-9-5](#); filed Dec 19, 1995, 3:10 p.m.: 19 IR 1059; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1568; filed Aug 26, 2004, 11:30 a.m.: 28 IR 54)

SECTION 6. [326 IAC 8-9-6](#) IS AMENDED TO READ AS FOLLOWS:

[326 IAC 8-9-6](#) Record keeping and reporting requirements

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#)

Affected: [IC 13-17](#)

Sec. 6. (a) The owner or operator of each vessel subject to this rule shall keep all records required by this section for three (3) years unless specified otherwise. Records required by subsection (b) ~~shall~~ **must** be maintained for the life of the vessel.

(b) The owner or operator of each vessel ~~to which section 1 of this rule applies~~ shall maintain a record and submit to the department a report containing the following information for each vessel:

- (1) The vessel identification number.
- (2) The vessel dimensions.
- (3) The vessel capacity.
- (4) A description of the emission control equipment for each vessel described in section 4(a) and 4(b) of this rule, or a schedule for installation of emission control equipment on vessels described in section 4(a) or 4(b) of this rule with a certification that the emission control equipment meets the applicable standards.

(c) The owner or operator of each vessel equipped with a permanently affixed roof and internal floating roof shall comply with the following record keeping and reporting requirements:

- (1) Keep a record of each inspection performed as required by section 5(b)(1) through 5(b)(4) of this rule.

Each record ~~shall~~ **must** identify the following:

- (A) The vessel inspected by identification number.
- (B) The date the vessel was inspected.
- (C) The observed condition of each component of the control equipment, including the following:
 - (i) Seals.
 - (ii) Internal floating roof.
 - (iii) Fittings.
- (2) If any of the conditions described in section 5(b)(2) of this rule are detected during the required annual visual inspection, a record ~~shall~~ **must** be maintained and a report ~~shall~~ **must** be ~~furnished~~ **submitted** to the department within thirty (30) days of the inspection ~~Each report shall identify that includes~~ the following:
 - (A) The vessel by identification number.
 - (B) The nature of the defects.
 - (C) The date the vessel was emptied, or the nature of and date the repair was made.
- (3) After each inspection required by section 5(b)(3) of this rule that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in section ~~5(b)(3)(B)~~ **5(b)(2)** of this rule, a record ~~shall~~ **must** be maintained and a report ~~shall~~ **must** be ~~furnished~~ **submitted** to the department within thirty (30) days of the inspection ~~The report shall identify that includes~~ the following:
 - (A) The vessel by identification number.
 - (B) The reason the vessel did not meet the specifications of section 4(a)(1)(A), 4(a)(2)(A), or 5(b) of this rule. ~~and~~
 - (C) A list of each repair made.**

(d) The owner or operator of each vessel equipped with an external floating roof shall comply with the following record keeping and reporting requirements:

- (1) Keep a record of each gap measurement performed as required by section 5(c) of this rule ~~Each record shall identify~~ **including the following:**

- (A) The vessel by identification number** in which the measurement was made. ~~and shall contain the following:~~
 - ~~(A)~~ **(B)** The date of measurement.
 - ~~(B)~~ **(C)** The raw data obtained in the measurement.
 - ~~(C)~~ **(D)** The calculations described in section 5(c)(2) and 5(c)(3) of this rule.
- (2) Within sixty (60) days of performing the seal gap measurements required by section 5(c)(1) of this rule, ~~furnish~~ **submit a report to** the department ~~with a report~~ that contains the following:
 - (A) The date of measurement.
 - (B) The raw data obtained in the measurement.
 - (C) The calculations described in section 5(c)(2) and 5(c)(3) of this rule.
- (3) After each seal gap measurement that detects gaps exceeding the limitations specified in section 5(c) of this rule, submit a report to the department within thirty (30) days of the inspection ~~The report shall identify that includes the following:~~
 - (A) The vessel by identification number.** ~~and contain~~
 - (B) The information specified in subdivision (2).** ~~and~~
 - (C) The date the vessel was emptied or the repairs made and date of repair.** ~~repaired.~~

(e) The owner or operator of each vessel equipped with a closed vent system with a control device shall comply with the following record keeping and reporting requirements:

(1) ~~An owner or operators~~ **operator** that ~~equip~~ **equips** the vessel with a control device other than a flare shall do the following:

(A) ~~On or before January 1, 1996,~~ Submit an operating plan as required by section ~~4(d)~~ **5(d)** of this rule.

(B) Maintain records of the following:

(i) The operating plan.

(ii) Measured values of the parameters monitored according to section 5(d)(2) of this rule.

(2) ~~An owner or operators~~ **operator** that ~~equip~~ **equips** the vessel with a closed vent system and a flare shall meet the following requirements:

(A) Keep records of all periods of operation during which the flare pilot flame is absent.

(B) ~~Furnish~~ **Submit a report to** the department: ~~with a report~~

(i) containing the measurements required by 40 CFR 60.18(f)(1)* through 40 CFR 60.18(f)(5)*, as required by 40 CFR 60.8*; ~~This report shall be submitted and~~

(ii) within six (6) months of the initial start-up date.

(C) ~~Furnish~~ **Submit a semiannual report to** the department ~~with a semiannual report~~ of all periods recorded under ~~40-CFR-60.115*~~ **40 CFR 60.115b(d)(2)*** in which the pilot flame was absent.

(f) The owner or operator of each vessel equipped with a closed vent system and control device meeting the standards of section 4 of this rule is exempt from the requirements of subsections (g) and (h).

(g) Except as provided in subsections (f) and (j), the owner or operator of each vessel either with a design capacity greater than or equal to thirty-nine thousand (39,000) gallons storing a VOL with a maximum true vapor pressure greater than or equal to five-tenths (0.5) pound per square inch absolute (psia) but less than seventy-five hundredths (0.75) psia shall maintain a record of the maximum true vapor pressure of the VOL stored in each vessel ~~The record for each vessel shall contain~~ **including** the following information:

(1) The type of VOL stored.

(2) The dates of the VOL storage.

(3) For each day of VOL storage, the:

(A) average:

(i) stored temperature for VOLs stored above or below the ambient temperature; or **average**

(ii) ambient temperature for VOLs stored at ambient temperature; and **the**

(B) corresponding maximum true vapor pressure.

(h) Except as provided in subsection (f), the owner or operator of each vessel with a design capacity greater than or equal to thirty-nine thousand (39,000) gallons storing a liquid with a maximum true vapor pressure, **as measured in accordance with subsection (f)**, that is normally less than seventy-five hundredths (0.75) psia shall maintain a record and notify the department within thirty (30) days when the maximum true vapor pressure of the liquid exceeds seventy-five hundredths (0.75) psia.

(i) Available data on the storage temperature may be used to determine the maximum true vapor pressure as follows:

(1) The maximum true vapor pressure for VOLs stored at temperatures above or below the ambient temperature ~~shall correspond to~~ **must be calculated based on** the highest calendar-month average storage temperature.

(2) The maximum true vapor pressure for VOLs stored at the ambient temperature ~~shall correspond to~~ **is calculated based on** the local maximum monthly average **ambient** temperature, as reported by the National Weather Service.

~~(2) For local crude oil or refined petroleum products, the maximum vapor pressure may be determined as follows:~~

~~(A) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517* unless the department specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the samples.~~

~~(B) The maximum true vapor pressure of each type of crude oil with a Reid vapor pressure less than two (2) pounds per square inch or with physical properties that preclude determination by the recommended method shall be determined from available data and recorded if the estimated maximum true vapor pressure is greater than five-tenths (0.5) psia.~~

(3) For other liquids, the maximum true vapor pressure may be determined by any of the following methods:

- (A) ~~Standard reference texts.~~ **ASTM Method D2879-10**.**
- (B) ~~ASTM Method D2879-92**.~~ **An appropriate method approved by the department and U.S. EPA.**
- (C) ~~Calculated or measured by a method approved by the department.~~

(4) Maximum true vapor pressure for VOLs stored at or above ambient temperatures must be determined by using one (1) of the following:

- (A) Unless a method is required under clause (C), seventy-three (73) degrees Fahrenheit in Lake and Porter counties.**
- (B) Unless a method is required under clause (C), seventy-seven and seven-tenths (77.7) degrees Fahrenheit in Clark and Floyd counties.**
- (C) If required by the department or U.S. EPA, by using:**
 - (i) ASTM Method D323-92**;** or
 - (ii) a method approved by the department and U.S. EPA.**

(j) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition ~~shall~~ **be is** subject to the following requirements:

(1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored ~~will~~ **must** be determined using the methods described in subsection (i).

(2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring, but below the cutoff for controls as defined in section 4(a) of this rule, **the following** tests are required: ~~as follows:~~

- (A) An initial physical test of the vapor pressure. ~~is required.~~
- (B) A physical test at least once every six (6) months thereafter ~~is required~~ using one (1) of the following methods:
 - (i) ~~ASTM Method D2879-92**.~~ **D2879-10**.**
 - (ii) ~~ASTM Method D323-82**.~~ **D323-08**.**
 - (iii) ~~As measured by~~ An appropriate method ~~as~~ approved by the department.

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These documents are incorporated by reference. Copies are available **from the American Society for Testing and Materials, 100 Barr Harbor Drive, Conshohocken, Pennsylvania 19429, or for review ~~and copying~~ at the Indiana Department of Environmental Management, Office of Air Quality, **Legal Counsel**, Indiana Government Center North, ~~Tenth~~ **Thirteenth** Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.

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