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TITLE 326 AIR POLLUTION CONTROL BOARD

Proposed Rule LSA Document #05-118

DIGEST

Amends 326 IAC 7-4-2 concerning sulfur dioxide emission limitations at Citizens Gas & Coke Utility, located in Indianapolis, Indiana. Effective 30 days after filing with the Secretary of State.

HISTORY

First Notice: June 1, 2005, Indiana Register (28 IR 2819).

Second Notice and Notice of First Hearing: September 1, 2005, Indiana Register (28 IR 3672).

Change in Notice of First Hearing: April 1, 2006, Indiana Register (29 IR 2252).

Change in Notice of Hearing: June 1, 2006.

Date of First Hearing: June 7, 2006.

PUBLIC COMMENTS UNDER IC 13-14-9-4.5

IC 13-14-9-4.5 states that a board may not adopt a rule under IC 13-14-9 that is substantively different from the draft rule published under IC 13-14-9-4 until the board has conducted a third comment period that is at least twenty-one (21) days long.

REQUEST FOR PUBLIC COMMENTS

Portions of this proposed rule are substantively different from the draft rule published on September 1, 2005, at 28 IR 3672. The Indiana Department of Environmental Management (IDEM) is requesting comment on the following portions of the proposed (preliminarily adopted) rule that are substantively different from the language contained in the draft rule.

The following sections of the proposed rule are substantively different from the draft rule:

326 IAC 7-4-2

The following provision did not appear in the draft rule but was added to the proposed (preliminarily adopted) rule:

(1) Daily fuel H₂S sampling and analysis compliance provision, at 326 IAC 7-4-2(30)(I) in the proposed (preliminarily adopted) rule.

This notice requests the submission of comments on the sections of the rule listed above, including suggestions for specific amendments to those sections. These comments and the department's responses thereto will be presented to the board for its consideration at final adoption under IC 13-14-9-6. Comments on additional sections of the proposed rule that the commentor believes are substantively different from the draft rule may also be submitted for the consideration of the board. Mailed comments should be addressed to:

#05-118 CG & CU SO₂ SIP

Susan Bem Mail Code 61-50

c/o Administrative Assistant

Rule Development Section

Office of Air Quality

Indiana Department of Environmental Management

100 North Senate Avenue

Indianapolis, Indiana 46204.

Hand delivered comments will be accepted by the receptionist on duty at the Office of Air Quality, Tenth Floor East, 100 North Senate Avenue, Indianapolis, Indiana. Comments may also be submitted by facsimile to (317) 233-2342, Monday through Friday, between 8:15 a.m. and 4:45 p.m. Please confirm the timely receipt of faxed comments by calling the Rule Development Section at (317) 233-0426.

COMMENT PERIOD DEADLINE

Comments in any form must be postmarked, hand delivered, or faxed by July 24, 2006.

SUMMARY/RESPONSE TO COMMENTS FROM THE SECOND COMMENT PERIOD

IDEM requested public comment from September 1, 2005, through October 3, 2005, on IDEM's draft rule language. IDEM received comments from the following parties:

Improving Kids' Environment (IKE)

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

Comment: The proposal includes combined limits for several combinations of batteries in operation. A key challenge of combined limits is the increased difficulty in determining compliance. How will Citizens Gas & Coke Utility (CG & CU) assess compliance on an ongoing basis and provide documentation of that compliance? How will IDEM evaluate compliance on an ongoing basis? Will IDEM include language in the rule or other enforceable mechanism, such as the facility's permit, that specifies the compliance method? (IKE)

Response: To determine compliance, CG & CU currently measures the hydrogen sulfide content of the coke oven gas on a daily basis. The sample is taken after the coke oven gas is desulfurized by the iron oxide boxes. The draft Title V permit for the facility includes metering the fuel gas that is combusted in each battery and measuring the sulfur content that is present in the coke oven gas. IDEM is proposing to amend the rule to require fuel sampling and analysis on a daily basis.

Comment: The combined limit is equal to the sum of the current limits, whatever the combination of batteries in operation. If an appropriate method to assure compliance with a combined limit can be established, the commenter suggests that the company and IDEM consider limits that are lower than the sum of the existing limits. It appears from the company's recent emission statements that actual emissions may be consistently lower than what is allowed under the current rule. Given that Marion County has been designated as nonattainment for fine particle pollution, to which SO₂ contributes, it would seem prudent to adjust the emissions permitted in the rule to reflect realistic operations at the facility. (IKE)

Response: The combined limit for all batteries in operation is seventy-eight and two-hundredths (78.02) pounds per hour which is three hundred forty-two (342) tons per year. From 1999 to 2003, the company's actual SO₂ emissions have ranged from one hundred eighty-seven (187) to three hundred fifty-two (352) tons/yr. While for most years the actual emissions have been less than allowed, there is enough variation in the emissions from year to year that lowering the combined limit may cause concern for meeting the combined limit in future years.

SUMMARY/RESPONSE TO COMMENTS RECEIVED AT THE FIRST PUBLIC HEARING

On June 7, 2006, the air pollution control board (board) conducted the first public hearing/board meeting concerning the development of amendments to 326 IAC 7-4-2. Comments were made by the following parties:

Improving Kids' Environment (IKE)

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

Comment: The commenter requests that IDEM reevaluate the combined SO₂ limit to see if it really needs to be the full amount. This is an important evaluation since Marion County is nonattainment for fine particles and SO₂ is a precursor to fine particle formation. (IKE)

Response: IDEM will consider this comment and respond appropriately by final adoption.

326 IAC 7-4-2

SECTION 1. 326 IAC 7-4-2 IS AMENDED TO READ AS FOLLOWS:

326 IAC 7-4-2 Marion County sulfur dioxide emission limitations

Authority: IC 13-14-8; IC 13-17-3-4

Affected: IC 13-12; IC 13-14-4-3; IC 13-16-1

Sec. 2. The following sources and facilities located in Marion County shall comply with the sulfur dioxide emission limitations in pounds per million Btu (lbs/MMBtu) and pounds per hour (lbs/hr), unless otherwise specified, and other requirements:

Source	Facility Description	Emission Limitations	
		lbs./MMBtu	lbs./hr.
(1) Acustar	Boiler 1	2.82	109.98
	Boiler 2	2.82	109.98
	Boiler 3	2.82	109.98
(2) Allison Gas Turbine-Plant 5	Boiler 1	3.99	299.4
	Boiler 2	3.99	299.4
	Boiler 3	3.99	299.4
	Boiler 4	3.99	299.4

(3) Amtrak	Boilers 61 and 62	3.30	208.15
(4) Bridgeport Brass	Boiler 1	3.55	135.8
	Boiler 2	3.55	135.8
	Boiler 3	3.55	135.8
(5) Central Soya	Boiler	4.32	272.0
(6) Central State	Boiler 3	3.39	111.8
	Boiler 7	3.39	169.5
	Boiler 8	3.39	169.5
(7) Citizens Gas	Batteries E & H (each)	0.79 pounds per ton	31.16
	Battery 1	0.23 pounds per ton	15.70
(8) (7) Detroit Diesel Allison-Plant 3	Boiler 1	1.88	67.6
	Boiler 2	1.88	67.6
	Boiler 3	1.88	90.2
	Boiler 4	1.88	135.2
	Boiler 5	1.88	180.3
(9) (8) Diamond Bathurst	#2 Furnace	1.40 pounds per ton	20.22
(10) (9) Ford	Boiler 1	2.43	177.38
	Boiler 2	2.43	354.77
	Boiler 3	2.43	354.77
(11) (10) Fort Harrison	Boiler 1	2.92	151.84
	Boiler 2	2.92	151.84
	Boiler 3	2.92	151.84
	Boiler 4	2.92	151.84
(12) (11) G.M. Truck & Bus Group	Boiler 1	2.31	187.1
	Boiler 2	2.31	187.1
	Boiler 3	2.31	106.3
(13) (12) Indiana Girls School	Boiler	6.00	46.9
(14) (13) IPL-Perry W	Boiler 17	6.0	1,320.0
	Boiler 18	6.0	1,320.0
(15) (14) Indianapolis Sludge Incinerator	Incinerator 1	2.0 pounds per ton	14.19
	Incinerator 2	2.0 pounds per ton	14.19
	Incinerator 3	2.0 pounds per ton	14.19
	Incinerator 4	2.0 pounds per ton	14.19
	Incinerator 5	2.0 pounds per ton	14.19
	Incinerator 6	2.0 pounds per ton	14.19
	Incinerator 7	2.0 pounds per ton	14.19
	Incinerator 8	2.0 pounds per ton	14.19
(16) (15) Marathon Petroleum-Indiana Refining Division	H-H1	1.92	36.46
	H-H2	1.92	36.46
	H-H3	1.92	38.38
	P-H1	1.92	89.03
	P-H2	1.92	82.12
	P-H3	1.92	30.32
	P-H4	1.92	33.19
	P-H5	1.92	9.98
	Alky Reboiler	1.92	53.15
	Crude Heater	1.92	268.05
	Vacuum Heater	1.92	99.20
	Sulfur Recovery	189.0 pounds per ton sulfur	88.17
	FCC (Proc)	3.92 pounds per ton	506.37
	CO Boiler	1.92	228.72

	FCC Chg. Htr.	1.92	88.26
	GH-1	1.92	81.36
(17) (16) Navistar	Boiler 1	2.98	193.72
	Boiler 2	2.98	193.72
	Boiler 3	2.98	193.72
(18) (17) Quaker Oats	Boiler 1	2.79	195.3
	Boiler 2	2.79	195.3
	Murray Boiler	0.50	50.1
(19) (18) Quemetco	Reverberatory Furnace	24.6 pounds per ton	617.0
(20) (19) Refined Metals	Blast Furnace	10.8 pounds per ton	64.8
(21) (20) Reilly Industries	2722 W	1.25	114.75
	2726 S	1.25	49.1
	186 N	1.25	46.0
	2707 V	1.25	20.0
	112 E	0.0**	0.0**
	2710 P	0.0**	0.0**
	Riley	1.25	64.75
	B & W	1.25	49.1
	2724 W	1.25	26.3
	2714 V	1.25	18.8
	2729 Q	1.25	3.8
	2740 Q	1.25	7.5
	732714	1.25	45.0
	2728 S	1.25	7.5
	Still	0.0**	0.0**
	Kettle	0.0**	0.0**
	2607 T	0.0**	0.0**
	702611	0.0**	0.0**
	722804	0.0**	0.0**
	2706 Q	0.0**	0.0**
	2713 W	0.0**	0.0**
	2714 W	0.0**	0.0**
	2720 W	0.0**	0.0**
(22) (21) Rexnord-Link Belt Bearing	Boiler A	3.28	101.7
	Boiler B	3.28	101.7
	Boiler C	0.0*	0.0*
(23) (22) Rexnord-Link Belt Chain	Boiler 1	3.68	117.8
	Boiler 2	3.68	117.8
	Boiler 3	3.68	117.8
(24) (23) Thomson Consumer Electronics	Boiler 1	1.95	39.0
	Boiler 2	1.95	39.0
	Boiler 3	1.95	146.3
	Boiler 4	1.95	146.3
(25) (24) Union Carbide	Boiler 1	3.85	92.4
	Boiler 2	3.85	106.6
	Boiler 3	3.85	148.2
(26) (25) Western Select Properties	Boiler 2	2.52	189.06
	Boiler 3	2.52	189.06
	Boiler 4	2.52	189.06
	Boiler 5	2.52	252.07
(27) (26) Wishard	Boiler 1	4.04	105.0
	Boiler 2	4.04	105.0

**Less than 0.05

~~(28)~~ (27) Allison Gas Turbine Operations Plant 8 shall comply with the sulfur dioxide emission limitations provided in clause (A) or (B) and other requirements as follows:

(A) Boilers 2 through 11 may burn natural gas at any time.

(B) Babcock and Wilcox Boilers 2 through 6 and Combustion Engineering Boilers 7 through 11 may burn fuel oil with a sulfur dioxide emission limitation of two and one-tenth (2.1) lbs/MMBtu each during periods when one (1) of the following conditions is met:

(i) Fuel oil is burned in no more than three (3) Babcock and Wilcox boilers, and fuel oil is not burned in any combustion engineering boiler.

(ii) Fuel oil is burned in no more than two (2) Babcock and Wilcox boilers and no more than two (2) combustion engineering boilers.

(iii) Fuel oil is burned in no more than one (1) Babcock and Wilcox boiler and no more than three (3) combustion engineering boilers.

(C) A log of hourly operational status and fuel type for each boiler shall be maintained at the plant and made available to the department upon request. A daily summary of operating status and fuel type for each boiler for each day of a calendar quarter shall be submitted to the department on a quarterly basis.

(D) Allison Gas Turbine Operations Plant 8 shall erect a twenty (20) foot stack extension with a diameter at the extension outlet of four (4) feet for each stack serving Boilers 2 through 6 in accordance with the following schedule:

(i) Complete design, specifications, and construction drawings and award contracts by August 2, 1988.

(ii) Complete installation of stack extensions by December 2, 1988.

~~(29)~~ (28) Indianapolis Power and Light Perry K shall comply with the sulfur dioxide emission limitations in lbs/MMBtu and other requirements as follows:

Boiler Number	Emission Limitations
(A) 17 and 18	0.3
(B) 11, 12, 13, 14, 15, and 16	2.1
(C) As an alternative to the emission limitations in clause (B), sulfur dioxide emissions from Boilers 11, 12, 13, 14, 15, and 16 may comply with any one (1) of the sets of emission limitations in lbs/MMBtu as follows:	

Boiler Number	Emission Limitations
(i) 13, 14, 15, and 16	0.0
11 and 12	4.4
(ii) 11, 12, 15, and 16	0.0
13 and 14	4.4
(iii) 11, 12, 13, and 14	0.0
15 and 16	4.4
(iv) 11, 12, 15, and 16	3.0
13 and 14	0.3
(v) 11 and 12	0.3
13, 14, 15, and 16	3.0

(D) The department or the Indianapolis Air Pollution Control Division shall be notified prior to the reliance by Indianapolis Power and Light on any one (1) of the sets of alternative emission limitations specified in clause (C).

(E) A log of hourly operating status for each boiler shall be maintained and made available to the department upon request. A daily summary indicating which boilers were in service during the day shall be submitted to the department quarterly. In addition, records of the daily average sulfur content, heat content, and sulfur dioxide emission rate for each day in which an alternative set of emission limitations specified in clause (C) is used shall be submitted to the department quarterly.

(F) For the purposes of 326 IAC 7-2-1(c)(1), during thirty (30) day periods in which Indianapolis Power and Light relies on more than one (1) set of emission limitations specified in clauses (B) through (C), a separate thirty (30) day rolling weighted average for each set of limitations shall be determined. Each thirty (30) day rolling weighted average shall be based on data from the previous thirty (30) operational days within the last ninety (90) days for that set of limitations. If Indianapolis Power and Light does not operate thirty (30) days under any one (1) set of limitations within the last ninety (90) days, the rolling weighted average shall be based on all operational days within the last ninety (90) days for that set of limitations.

(G) Boilers 11 through 16 shall be limited to six and zero-tenths (6.0) lbs/MMBtu each until Boilers 11 through 16 achieve compliance with the sulfur dioxide emission limitations specified in clauses (B) through (C). Compliance with the emission limitations specified in clauses (B) through (C) shall be achieved according to the following schedule:

(i) Complete engineering analysis of modifications by April 2, 1988.

- (ii) Complete testing and design of modifications and place orders for necessary equipment by May 2, 1989.
- (iii) Complete installation of necessary equipment and achieve compliance with emission limitations specified in clauses (B) through (C) by June 2, 1990.

~~(29)~~ **(29)** Indianapolis Power and Light Stout shall comply with the sulfur dioxide emission limitations in lbs/MMBtu and other requirements as follows:

Boiler/Turbine Number	Emission Limitations
(A) Boiler 70	5.3
(B) Boilers 50 and 60	4.7
Boilers 1 through 8	0.0
Boilers 9 and 10 and Gas Turbines 1, 2, and 3	0.35

(C) As an alternative to the emission limitations in clause (B), sulfur dioxide emissions from Boilers 50, 60, and 1 through 10 and Gas Turbines 1, 2, and 3 may comply with any one (1) of the sets of emission limitations in lbs/MMBtu as follows:

Boiler/Turbine Number	Emission Limitations
(i) Boilers 50 and 60	5.2
Boilers 1 through 10 and Gas Turbines 1, 2, and 3	0.0
(ii) Boilers 50 and 60	5.0
Boilers 1 through 10	0.0
Gas Turbines 1, 2, and 3	0.4
(iii) Boilers 50 and 60	4.1
Boilers 1 through 8	0.26
Boilers 9 and 10	0.35
Gas Turbines 1, 2, and 3	0.3
(iv) Boilers 50 and 60	3.9
Boilers 1 through 8	0.34
Boilers 9 and 10 and Gas Turbines 1, 2, and 3	0.35

(D) The department or the Indianapolis Air Pollution Control Division shall be notified prior to the reliance by Indianapolis Power and Light on any one (1) of the sets of alternative emission limitations specified in clause (C).

(E) A log of hourly operating status for each boiler shall be maintained and made available to the department upon request. A daily summary indicating which boilers were in service during the day shall be submitted to the department quarterly. In addition, records of the daily average sulfur content, heat content, and sulfur dioxide emission rate for each day in which an alternative set of emission limitations specified in clause (C) is used shall be submitted to the department quarterly.

(F) For the purposes of 326 IAC 7-2-1(c)(1), during thirty (30) day periods in which Indianapolis Power and Light relies on more than one (1) set of emission limitations specified in clauses (B) through (C), a separate thirty (30) day rolling weighted average for each set of limitations shall be determined. Each thirty (30) day rolling weighted average shall be based on data from the previous thirty (30) operational days within the last ninety (90) days for that set of limitations. If Indianapolis Power and Light does not operate thirty (30) days under any one (1) set of limitations within the last ninety (90) days, the rolling weighted average shall be based on all operational days within the last ninety (90) days for that set of limitations.

(G) Indianapolis Power and Light shall install a stack diameter restriction for the stack serving Boilers 50 and 60. The stack diameter restriction shall reduce the diameter to six and one-half (6½) feet at the tip of the stack. The installation of the stack diameter restriction shall be in accordance with the following schedule:

- (i) Complete preliminary design of modifications by December 2, 1988.
- (ii) Place orders for necessary modification by July 2, 1989.
- (iii) Complete installation by February 2, 1990.

(30) Citizens Gas & Coke Utility shall comply with the sulfur dioxide emission limitations, depending on which battery or combination of batteries are in operation, as follows:

Description	Emission Limitations (lbs/ton of coal)	Emission Limitations (lbs/hour)
(A) Battery 1, E, & H	0.67	78.02
(B) Battery 1	0.23	15.70
(C) Battery 1 & E	0.49	46.86
(D) Battery 1 & H	0.50	46.86
(E) Battery E & H	0.79	62.32
(F) Battery E	0.79	31.16
(G) Battery H	0.79	31.16

(H) The department and the Indianapolis office of environmental services shall be notified in writing prior to the reliance by Citizens Gas & Coke Utility on an emission limitation other than clause (A) for determining compliance with the appropriate emission limit.

(I) Citizens Gas & Coke Utility shall monitor the hydrogen sulfide (H₂S) content of the processed and treated coke oven gas used for battery underfiring by sampling and analyzing the coke oven gas for H₂S content at least once per day. The H₂S content of the gas shall be sampled using Determination of Hydrogen Sulphide Content, Cadmium Acetate Method, Method Number DIN 51855 Part 4 (January 1979)*.

(J) Sulfur dioxide emissions in pounds per tons of coal (lbs/ton of coal) and pounds per hour (lbs/hr) shall be calculated using the data on H₂S content and organic sulfur content in the coke oven gas. Citizens Gas & Coke Utility shall submit to the department and the Indianapolis office of environmental services within thirty (30) days of the end of each calendar quarter the calculated sulfur dioxide emission rate in pounds per tons of coal (lbs/ton of coal) and pounds per hour (lbs/hr) for each day during the calendar quarter.

*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 Board; 326 IAC 7-4-2; filed Aug 28, 1990, 4:50 p.m.: 14 IR 65; filed Feb 9, 1999, 4:22 p.m.: 22 IR 1959; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

Notice of Public Hearing

Under IC 4-22-2-24, IC 13-14-8-6, and IC 13-14-9, notice is hereby given that on August 2, 2006 at 1:00 p.m., at the Indiana Government Center-South, 402 West Washington Street, Conference Center Room A, Indianapolis, Indiana the Air Pollution Control Board will hold a public hearing on proposed amendments to 326 IAC 7-4-2.

The purpose of this hearing is to receive comments from the public prior to final adoption of these rules by the board. All interested persons are invited and will be given reasonable opportunity to express their views concerning the proposed amendments. Oral statements will be heard, but, for the accuracy of the record, all comments should be submitted in writing.

Additional information regarding this action may be obtained from Susan Bem, Rule Development Section, Office of Air Quality, (317) 233-5697 or (800) 451-6027 (in Indiana).

Individuals requiring reasonable accommodations for participation in this event should contact the Indiana Department of Environmental Management, Americans with Disabilities Act coordinator at:

Attn: ADA Coordinator

Indiana Department of Environmental Management

100 North Senate Avenue

P.O. Box 6015

Indianapolis, Indiana 46204-2251

or call (317) 232-3077 (V) or (317) 232-6565 (TDD). Speech and hearing impaired callers may contact IDEM via the Indiana Relay Service (711) or 1-800-743-3333. Please provide a minimum of 72 hours notification.

Copies of these rules are now on file at the Office of Air Quality, Indiana Government Center-North, 100 North Senate Avenue, Tenth Floor East and Legislative Services Agency, One North Capitol, Suite 325, Indianapolis, Indiana and are open for public inspection.

Kathryn A. Watson, Chief
Air Programs Branch
Office of Air Quality