

---

**TITLE 326 AIR POLLUTION CONTROL BOARD**

**SECOND NOTICE OF COMMENT PERIOD**

LSA Document #07-309

**DEVELOPMENT OF AMENDMENTS TO [326 IAC 7-4-10](#) AND NEW RULES CONCERNING SULFUR DIOXIDE, NITROGEN OXIDES, AND PARTICULATE MATTER EMISSION LIMITATIONS AT F. B. CULLEY GENERATING STATION, NEWBURGH, INDIANA**

**PURPOSE OF NOTICE**

The Indiana Department of Environmental Management (IDEM) has developed draft rule language for amendments to [326 IAC 7-4-10](#) concerning sulfur dioxide (SO<sub>2</sub>) emission limitations and new rules concerning nitrogen oxides (NO<sub>x</sub>), and particulate matter (PM) emission limitations for F. B. Culley Generating Station located in Newburgh, Indiana. By this notice, IDEM is soliciting public comment on the draft rule language. 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: June 20, 2007, Indiana Register (DIN: [20070620-IR-326070309FNA](#)).

**CITATIONS AFFECTED:** [326 IAC 6-7-1](#); [326 IAC 7-4-10](#); [326 IAC 10-6-1](#).

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

**SUBJECT MATTER AND BASIC PURPOSE OF RULEMAKING**

**Basic Purpose and Background**

Southern Indiana Gas and Electric Company (SIGECO) has requested that IDEM add requirements from a federal consent decree (Civil Action No. IP99-1692 C-M/F) for the F. B. Culley Generating Station located in Newburgh, Indiana to state rules and the state implementation plan (SIP). The consent decree requires SIGECO to request a source-specific SIP revision that incorporates enforceable unit-specific emission limitations and control requirements. The consent decree may not be terminated until the source has obtained the SIP revision. The requirements in the consent decree that apply to F.B. Culley Unit 1 will not be included in this rulemaking, since the unit was shut down on December 16, 2006. The requirements that IDEM is proposing to add to state rules are as follows:

- Operate the selective catalytic reduction (SCR) system at Unit 3 at all times the unit is in operation consistent with the technological limitations, manufacturers' specifications, and good operating practices for the SCR. Unit 3 shall meet a nitrogen oxides (NO<sub>x</sub>) emission limit of 0.100 pound per million British thermal units (lb/MMBtu) on a 30-day rolling average.
- Units 2 and 3 shall meet a removal rate for sulfur dioxide (SO<sub>2</sub>) of 95% using CEMS data from both the inlet and outlet of the control device.
- Operate a baghouse at Unit 3 at all times the unit is combusting coal. Unit 3 shall meet a particulate matter (PM) emissions limit of 0.015 lb/MMBtu.

**[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**

There is no fiscal impact associated with the draft rule language since the amendments are based on a federal consent decree.

**Public Participation and Workgroup Information**

No workgroup is planned for the rulemaking. If you feel that a workgroup or other informal discussion on the rule is appropriate, please contact Susan Bem, Rules Development Section, Office of Air Quality at (317) 233-5697 or (800) 451-6021 (in Indiana).

**SUMMARY/RESPONSE TO COMMENTS FROM THE FIRST COMMENT PERIOD**

IDEM requested public comment from June 20, 2007, through July 20, 2007, on alternative ways to achieve the purpose of the rule and suggestions for the development of draft rule language. IDEM received no comments in response to the first notice of public comment period.

---

**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. Mailed comments should be addressed to:

#07-309(APCB) Vectren/SIGECO  
Susan Bem Mail Code 61-50  
Rules 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 tenth floor reception desk, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana.

Comments may be submitted by facsimile at the IDEM fax number: (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 Rules Development Section at (317) 233-0426.

**COMMENT PERIOD DEADLINE**

Comments must be postmarked, faxed, or hand delivered by January 11, 2008.

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

**DRAFT RULE**

SECTION 1. [326 IAC 6-7](#) IS ADDED TO READ AS FOLLOWS:

**Rule 7. Particulate Matter Emission Limitations for Southern Indiana Gas and Electric Company**

**[326 IAC 6-7-1](#) Southern Indiana Gas and Electric Company (SIGECO)**

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

Affected: [IC 13-15](#); [IC 13-17](#); [IC 13-22](#)

**Sec. 1. The following particulate matter emission limitations apply to Southern Gas and Electric Company (SIGECO) Culley in Warrick County:**

**(1) For Unit 3, the following:**

**(A) Particulate matter (PM) emission limit of fifteen-thousandths (0.015) pound per million Btu (lbs/MMBtu).**

**(B) A baghouse shall be operated all times the unit is combusting coal.**

**(C) The PM emission rate shall be determined using reference methods specified in 40 CFR 60, Appendix A, Method 5\*, using stack tests, or alternative methods that are requested by SIGECO and approved by the department and U.S. EPA. SIGECO shall calculate the PM emission rate from biennial stack tests in accordance with 40 CFR 60.8(f)\*. The results of each PM stack test shall be submitted to U.S. EPA within forty-five (45) days of completion of each test.**

**(2) For Units 2 and 3: an electrostatic precipitator (ESP) shall be operated at all times the unit is combusting coal.**

\*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 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 6-7-1](#))

SECTION 2. [326 IAC 7-4-10](#) IS AMENDED TO READ AS FOLLOWS:

**[326 IAC 7-4-10](#) Warrick County sulfur dioxide emission limitations**

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

Affected: [IC 13-15](#); [IC 13-17](#); [IC 13-22](#)

Sec. 10. (a) The following sources and facilities located in Warrick County shall comply with the sulfur dioxide emission limitations in pounds per million Btu, unless otherwise specified, and other requirements:

(1) Southern Indiana Gas and Electric Company (SIGECO)

Facility Description	Emission Limitations
(A) Culley Units 1, 2, and 3	
Prior to December 31, 1989	6.0 each
Beginning December 31, 1989	5.41 each
Beginning August 1, 1991 (Units 1 and 2 only)	2.79 each

(B) As an alternative to the emission limitations specified in clause (A), beginning August 1, 1991, sulfur dioxide emissions from Culley Units 1 and 2 shall be limited in pounds per million Btu as follows:

Facility Description	Emission Limitations
Unit 1	0.0006
Unit 2	4.40

(C) SIGECO shall notify the department and the U.S. EPA via certified mail at least fourteen (14) days prior to its intention to rely on the set of limits in clause (B) or to switch between sets of limits listed in clauses (A) ~~through and~~ (B).

(D) For the purposes of [326 IAC 7-2-1\(c\)\(1\)](#), during thirty (30) day periods in which SIGECO relies on more than one (1) set of limits contained in clauses (A) ~~through and~~ (B), a separate thirty (30) day rolling weighted average for each set of limits 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 limits. If SIGECO does not operate thirty (30) days under any one (1) set of limits 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 limits.

**(E) Units 2 and 3 shall maintain a thirty (30) day rolling average sulfur dioxide (SO<sub>2</sub>) removal efficiency of at least ninety-five percent (95%) using continuous emissions monitoring system (CEMS) data from both the inlet and outlet of the control device determined in accordance with 40 CFR 75\*. A thirty (30) day rolling average sulfur dioxide (SO<sub>2</sub>) removal efficiency means the percent reduction in the mass of a pollutant achieved by a unit's pollution control device over a thirty (30) day period using the thirty (30) day rolling average emission rate. A thirty (30) day rolling average emission rate shall be determined by calculating an arithmetic average of all hourly emission rates in lb/MMBtu for the current day and the previous twenty-nine (29) operating days. A new thirty (30) day rolling average emission rate shall be calculated for each new operating day. Each thirty (30) day rolling average emission rate shall include all startup, shutdown, and malfunction periods within an operating day.**

**(F) SIGECO shall continuously operate the flue gas desulfurization system (FGD) serving Units 2 and 3 at all times the units are in operation. Following startup of the units, SIGECO need not operate the FGD until either unit is fired with any coal. In the event of a planned FGD outage, SIGECO may continue to operate Unit 2, but shall burn down the coal existing in the Unit 2 bunker to the extent practicable, and, prior to shutting down the FGD, load compliance coal into the bunker for use until such time as the FGD resumes operation. In the event of an unplanned FGD outage, SIGECO shall feed compliance coal to the Unit 2 bunker until such time as the FGD resumes operation.**

**Compliance coal is defined as two (2.0) lb/MMBtu SO<sub>2</sub>, as demonstrated by a four (4) hour composite sample of the feed stock.**

(2) Aluminum Company of America (ALCOA) Warrick Power Plant

Facility Description	Emission Limitations
Units 1, 2, 3, and 4	
Prior to December 31, 1989	6.0 each
Beginning December 31, 1989	5.41 each
Beginning August 1, 1991	5.11 each

Unit 4 is jointly owned by ALCOA and SIGECO.

(3) ALCOA Warrick Power Plant and SIGECO Culley Plant

(A) As an alternative to the emission limitations specified in subdivisions (1) ~~through and~~ (2) and upon fulfilling the requirements of clause (B), sulfur dioxide emissions from the Warrick **Plant** and Culley **Plants Plant** shall be limited to one (1) of the sets of limitations in pounds per million Btu specified as follows:

Source	Facility Description	Emission Limitations
(i) Warrick Plant SIGECO Culley	Units 1–4	5.4 per stack

	Unit 1	2.0
	Unit 2	2.0
	Unit 3	5.4
(ii) Warrick Plant SIGECO Culley	Units 1-4	5.4 per stack
	Unit 1	0.0006
	Unit 2	3.2
	Unit 3	5.4
(iii) Warrick Plant SIGECO Culley	Units 1-4	5.4 per stack
	Unit 1	5.4
	Unit 2	0.0006
	Unit 3	5.4

(B) SIGECO and ALCOA shall jointly provide notification via certified mail to the department and to the U.S. EPA prior to December 1, 1989, of their intention to begin permanent reliance on one (1) of the sets of limitations specified in clause (A). The written notification shall contain written evidence of a notarized agreement between SIGECO and ALCOA concerning the applicable set of limitations. Beginning December 31, 1989, sulfur dioxide emissions from each unit shall be limited to five and four-tenths (5.4) pounds per million Btu. Beginning August 1, 1991, SIGECO shall achieve compliance with the applicable emission limitation for each unit with a final emission limitation of three and two-tenths (3.2) pounds per million Btu or less.

(4) ALCOA-Warrick Smelter Operations shall comply with the sulfur dioxide emission limitations in pounds per hour, unless otherwise specified, and other requirements as follows:

Facility Description	Emission Limitations
(A) Potline 1:	
All stacks associated with scrubber	176.3
Roof monitors associated with Potline 1	19.6
(B) Potline 2:	
All stacks associated with scrubber	195.2
Roof monitors associated with Potline 2	21.7
(C) Potline 3:	
All vents or stacks associated with scrubber	195.2
Roof monitors associated with Potline 3	21.7
(D) Potline 4:	
All vents associated with scrubber	195.2
Roof monitors associated with Potline 4	21.7
(E) Potline 5:	
All stacks associated with scrubber	195.2
Roof monitors associated with Potline 5	21.7
(F) Potline 6:	
All stacks associated with scrubber	195.2
Roof monitors associated with Potline 6	21.7
(G) Potlines 1, 2, 3, 4, 5, and 6	5,608 tons per year total
(H) Anode Bake Ring Furnace	94.1
	(412 tons per year)

Any sulfur dioxide emission limitation established in a permit issued in conformance with the prevention of significant deterioration rules under [326 IAC 2-2](#) or 40 CFR 52\*, if more stringent, shall supersede the requirements in this subdivision.

(b) Compliance with the pounds per hour limitations specified in subsection (a)(4) shall be based on a stack test pursuant to [under 326 IAC 7-2-1\(b\)](#).

(c) Compliance with the tons per year limitations specified in subsection (a)(4) shall be based on a rolling twelve (12) consecutive month emission total. Monthly sulfur dioxide emissions shall be determined from calendar month material balances using actual average sulfur content and material throughput. Quarterly reports shall be submitted to the department containing the calendar month and rolling twelve (12) month sulfur dioxide emissions from the smelter operations (potline scrubber stacks, roof monitors, and anode bake ring furnace). The report shall:

- (1) include documentation of the data and methodology used to calculate the monthly sulfur dioxide emissions; and shall
- (2) be submitted by the end of the month following the end of the quarter.

~~\*This document is~~ **\*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 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 7-4-10](#); filed Aug 28, 1990, 4:50 p.m.: 14 IR 75; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1568; filed Aug 26, 2004, 11:30 a.m.: 28 IR 43)*

SECTION 3. [326 IAC 10-6](#) IS ADDED TO READ AS FOLLOWS:

## Rule 10. Nitrogen Oxides Emission Limitations for Southern Indiana Gas and Electric Company

### [326 IAC 10-6-1](#) Southern Indiana Gas and Electric Company (SIGECO)

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

Affected: [IC 13-15](#); [IC 13-17](#); [IC 13-22](#)

Sec. 1. The following nitrogen oxides emission limitations apply to Southern Gas and Electric Company (SIGECO) Culley Unit 3 in Warrick County:

- (1) Nitrogen oxides (NO<sub>x</sub>) emission limit of one hundred-thousandths (0.100) pound per million Btu (lbs/MMBtu) on a thirty (30) day rolling average emission rate.
- (2) Selective catalytic reduction technology (SCR) shall be operated at all times the unit is in operation consistent with the technological limitations, manufacturers' specifications, and good operating practices for the SCR.
- (3) Emission rates for NO<sub>x</sub> shall be determined using a continuous emissions monitoring system (CEMS) in accordance with reference methods specified in 40 CFR 75\*. A thirty (30) day rolling average emission rate shall be determined by calculating an arithmetic average of all hourly emission rates in lb/MMBtu for the current day and the previous twenty-nine (29) operating days. A new thirty (30) day rolling average emission rate shall be calculated for each new operating day. Each thirty (30) day rolling average emission rate shall include all startup, shutdown, and malfunction periods within an operating day.

~~\*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, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.

*(Air Pollution Control Board; [326 IAC 10-6-1](#))*

### [Notice of Public Hearing](#)

Posted: 12/12/2007 by Legislative Services Agency  
An [html](#) version of this document.