UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

NOV 07 2011

REPLY TO THE ATTENTION OF

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Bill Doty, Executive Vice President
Utility Operations, President VUH
Southern Indiana Gas and Electric Company
P.O. Box 209
Evansville, Indiana 47702-0209

Re: Notice and Finding of Violations issued to Southern Indiana Gas and Electric Company (SIGECO)

Dear Mr. Doty:

The U. S. Environmental Protection Agency is issuing the enclosed Notice and Finding of Violations (Notice) to Southern Indiana Gas and Electric Company's (SIGECO's) A.B. Brown Generating Station near Mount Vernon, Indiana. This Notice is issued in accordance with Section 113(a) of the Clean Air Act (the Act), 42 U.S.C. § 7413(a).

EPA has determined that SIGECO has violated the Prevention of Significant Deterioration requirements under Section 165 of the Act, 42 U.S.C. § 7475, 42 U.S.C. §§ 7501-15, the Indiana State Implementation Plan (SIP) and the A.B. Brown Generating Station's Title V Permit.

EPA is offering you an opportunity to confer with us about the violations cited in the Notice. The conference will give you an opportunity to present information on the specific findings of violation, and the steps you will take to bring the facility into compliance. Please plan for your technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.

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You may contact Ethan Chatfield at (312) 886-5112 to request a conference. You should make your request for a conference no later than 10 calendar days after you receive this letter, and we should hold any conference within 30 calendar days of your receipt of this letter.

Sincerely,

Cheryl L. Newton
Director
Air and Radiation Division

Enclosure

cc: Phil Perry, Branch Chief
Office of Air Quality / Compliance Branch
Indiana Department Environmental Management

Allen K. Rose, Senior Environmental Specialist
Southern Indiana Gas and Electric Company

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:	)	
	)	
	)	**Proceedings Pursuant**
	)	**Section 113(a)(1) and (a)(3) of the**
Southern Indiana Gas and Electric	)	**Clean Air Act,**
Company (SIGECO)	)	**42 U.S.C. § 7413(a)(1) and (a)(3)**
	)	
	)	**EPA-5-12-IN-01**
	)	
	)	

NOTICE AND FINDING OF VIOLATIONS

This Notice and Finding of Violations (Notice) is issued to Southern Indiana Gas and Electric Company (SIGECO) for violations of the Clean Air Act (CAA or Act), 42 U.S.C. §§ 7401 *et seq.*, at the A.B. Brown Generating Station located near Mount Vernon, Indiana.

This Notice is issued pursuant to Sections 113(a)(1) and (a)(3) of the Act, 42 U.S.C. § 7413(a)(1) and (a)(3). The authority to issue this Notice has been delegated to the Regional Administrator of U.S. EPA Region 5, and redelegated to the Director, Air and Radiation Division, Region 5.

A. STATUTORY AND REGULATORY BACKGROUND

Prevention of Significant Deterioration

1. The Prevention of Significant Deterioration (PSD) provisions of Part C of Title I of the Act require preconstruction review and permitting for modifications of stationary sources. *See* 42 U.S.C. §§ 7470-7492. Pursuant to applicable regulations, if a major stationary source located in an attainment or unclassified area is planning to make a major modification, then that source must obtain a PSD permit before beginning actual construction. *See* 40 C.F.R. § 52.21(a)(2)(i). To obtain this permit, the source must, among other things, undergo a technology review and apply the Best Available Control Technology (BACT); perform a source impact analysis; perform an air quality analysis and modeling; submit appropriate information; and conduct additional impact analyses in order to meet the National Ambient Air Quality Standards (NAAQS) as required. 42 U.S.C. §§ 7470-7492.

2. On June 19, 1978, EPA promulgated PSD regulations pursuant to Part C of Title I of the Act. 43 *Fed. Reg.* 26403 (June 19, 1978). These regulations, codified at 40 C.F.R.

§ 52.21, apply to any major stationary source or major modification that would be constructed in an area designated as attainment or unclassified under the Act.

3. States are required to adopt state implementation plans (SIPs) that contain regulations to implement the PSD provisions. *See* Section 110(a) and 161 of the Act, 42 U.S.C. §§ 7410(a) and 7471.

4. A state may comply with Sections 110(a) and 161 of the Act by having EPA approve the state's own PSD regulations as part of its SIP, which must be at least as stringent as those set forth at 40 C.F.R. § 51.166.

5. If a state does not have PSD regulations that have been approved and incorporated by EPA into its SIP, EPA may incorporate the federal PSD regulations set forth at 40 C.F.R. § 52.21 into the SIP. 40 C.F.R. § 52.21(a).

6. On August 7, 1980, EPA disapproved Indiana's proposed PSD program, 45 *Fed. Reg.* 52676, 52741 (August 7, 1980). Accordingly, EPA incorporated the federal PSD regulations of 40 C.F.R. § 52.21(b) through (w) into the Indiana State Implementation Plan (SIP) at 40 C.F.R. § 52.25.

7. On September 30, 1980, EPA granted a partial delegation to Indiana. 46 *Fed. Reg.* 9580, 9583 (January 19, 1981). On March 3, 2003, EPA conditionally approved Indiana's PSD program. 68 *Fed. Reg.* 9892 (effective April 2, 2003). On June 18, 2007, EPA partially approved revisions related to EPA's NSR Reform regulations in the Indiana's PSD program. 72 *Fed. Reg.* 33395 (effective July 18, 2007). For all violations cited in this Notice, the applicable Indiana PSD regulations are the regulations codified at Indiana Administrative Code (IAC) Part 326.

8. The PSD regulations at 40 C.F.R § 52.21(a)(2)(iii) and 326 IAC 2-2-2(c) (2007) provide that "no stationary source or modification to which the requirements of paragraphs (j) through (r) of this section apply shall begin actual construction without a permit that states that the stationary source or modification would meet those requirements."

9. 326 IAC 2-2-2(b) (2003) provides that "the owner or operator of a major stationary source or major modification shall not begin actual construction unless the requirements of section 3 through 8, 10, and 14 through 16 of this rule have been met and a permit has been issued under this rule."

10. The PSD regulations at 40 C.F.R § 52.21(b)(2)(i) and 326 IAC 2-2-1(dd) (2007) define "major modification" as "any physical change in or change in the method of operation of a major stationary source that would result in: a significant emissions increase . . . of a regulated NSR pollutant. . . and a significant net emissions increase of that pollutant from the major stationary source."

11. 326 IAC 2-2-1(x) (2003) defined "major modification" as "any physical change in, or change in the method of operation of, a major stationary source that would result in a significant net emissions increase of any pollutant that is being regulated under the CAA."

12. The PSD regulations at 40 C.F.R. § 52.21(b)(1)(i)(a), 326 IAC 2-2-1(gg) (2007) and 326 IAC 2-2-1(z) (2003) define "major stationary source" to include a fossil-fuel fired steam electric plant of more than 250 million British thermal units per hour (mmBtu/hr) heat input that emits or has the potential to emit one hundred tons per year or more of any regulated air pollutant.

13. The PSD regulations at 40 C.F.R. § 52.21(b)(40) define "significant emissions increase" as an increase in emissions that is significant [as defined in §52.21(b)(23)]for that pollutant.

14. The PSD regulations at 40 C.F.R. § 52.21(b)(23)(i) and 326 IAC 2-2-1(xx) (2007) define "significant" for sulfuric acid mist as, a rate of emissions that would equal or exceed 7 tons per year.

15. 326 IAC 2-2-1(cc) (2003) defined "net emissions increase" as the tons per year amount by which the sum of the following exceeds zero: (1) Any increase in actual emissions from a particular physical change or change in the method of operation at a source (2) Any other increases and decreases in actual emissions at the source that are contemporaneous with the particular change and are otherwise creditable.

16. The PSD regulations at 40 C.F.R. § 52.21(b)(3)(i)and 326 IAC 2-2-1(jj) (2007), define "net emissions increase" as the amount by which the sum of the following exceeds zero: (a) the increase in emissions from a particular physical change or change in method of operation at a stationary source as calculated by paragraph 52.21(a)(2)(iv); and (b) any other increases or decreases in actual emissions at the major stationary source that are contemporaneous with the particular change and are otherwise creditable.

17. The PSD regulations at 40 C.F.R. § 52.21(a)(2)(iv)(c) state that: "a significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the projected actual emissions… and the baseline actual emissions… equals or exceeds the significant amount for that pollutant [as defined by § 52.21 (b)(23)]."

18. The PSD regulations apply to any major stationary source or major modification. 40 C.F.R. § 52.21(a)(2), 326 IAC 2-2-2(a) (2003) & 326 IAC 2-2-2(b) (2007).

19. The PSD regulations at 40 C.F.R. § 52.21(b)(41)(i) and 326 IAC 2-2-1(rr) define "projected actual emissions" as "the maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit a regulated NSR pollutant in any one of the 5 years (12-month period) following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the emissions unit's design capacity or its potential to emit that regulated NSR pollutant and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major stationary source."

20. The PSD regulations at 40 C.F.R. § 52.23 state, that "failure to comply with any provisions of [40 C.F.R. Part 52], or with any approved regulatory provision of a State implementation plan, or with any permit condition … issued pursuant to approved or promulgated regulations … or with any permit limitation or condition contained within an

operating permit issued under an EPA-approved program that is incorporated into the State implementation plan, shall render the person or governmental entity so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement action under section 113 of the Clean Air Act. "

21. On February 22, 1979, the State of Indiana Air Pollution Control Board issued a PSD permit to SIGECO (Permit No. (65) 1355) for construction of Unit #2 at the A.B. Brown Station.

22. Condition 3, page 3 of PSD Permit No. (65) 1355 states that "when the plant is put into operation and at all times thereafter, unless otherwise approved by the Board, the emission rates from [Unit #2] will be limited to a sulfur dioxide [emission rate] of 0.69 pounds per million Btu's of energy input."

23. Condition 3, page 3 of PSD Permit No. (65) 1355 states that "SIGECO has agreed to follow 'Clean Start' procedures during boiler fire-up and shut-down periods and will not request exceptions from compliance of Regulation APC 3, Section 2 during this time."

Title V Requirements

24. EPA gave interim approval of the Indiana Title V program on November 14, 1995. *See* 60 *Fed. Reg.* 57188 (effective on December 14, 1995). EPA fully approved the Indiana Title V program on December 4, 2001. *See* 66 *Fed. Reg.* 629469 (effective on November 30, 2001).

25. The Indiana regulations governing the Title V permitting program are codified at 326 IAC 2-7.

26. Section 503 of the CAA, 42 U.S.C. § 7661b, sets forth the requirement to timely submit an application for a permit, including information required to be submitted with the application.

27. Section 504(a) of the CAA, 42 U.S.C. § 7661c(a), requires that each Title V permit include enforceable emission limitations and standards, a schedule of compliance, and other conditions necessary to assure compliance with applicable requirements, including those contained in a state implementation plan. 42 U.S.C. § 7661c(a).

28. The Indiana Title V operating permit program at 326 IAC 2-7-3 provides that it is unlawful to violate any requirement of a permit issued under Title V or to operate a major source except in compliance with a permit issued by a permitting authority under Title V.

29. 326 IAC 2-7-5 provides that each Title V permit include, among other things, enforceable emission limitations and standards as are necessary to assure compliance with applicable requirements of the Act and the requirements of the applicable SIP.

30. 326 IAC 2-7-4 requires that a source submit a complete permit application which, among other things, identifies all applicable requirements, and certifies compliance with all applicable requirements.

31. 326 IAC 2-7-4(b) provides that: "Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a Part 70 permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date the applicant filed a complete application but prior to release of a draft Part 70 permit."

32. On January 26, 2009, IDEM issued a Part 70 Operating Permit (T 129-26415-00010) to Southern Indiana Gas and Electric Company (SIGECO), the owner and operator of the A.B. Brown Generating Station in accordance with 326 IAC 2-7 of the Indiana SIP and 40 C.F.R. Part 70.

33. Condition D.2.1 of Part 70 Operating Permit T 129-26415-00010 states that sulfur dioxide emission rates shall not exceed "0.69 pounds per million Btu (mmBtu) of energy input."

B. FACTUAL BACKGROUND

34. SIGECO is/was a business authorized to do business in Indiana.

35. SIGECO is a "person," as that term is defined in Section 302(e) of the Act, 42 U.S.C. § 7602(e).

36. At times relevant to this Notice, SIGECO was the owner and/or operator of the A.B. Brown Generating Station.

37. The A.B. Brown Generating Station is a fossil fuel-fired electric utility steam generating station located near Mount Vernon, Indiana and has a potential to emit of greater than 100 tons per year of NO_x, SO_2, and particulate matter (PM). The station consists of two coal-fired boilers for electric generation, Units 1 and 2, with current gross generating capacities of 265 MW each. Each boiler has a heat input greater than 250 million Btu per hour and began operating in 1979 and 1985, respectively.

38. The A.B. Brown Generating Station is located in Posey County, which is an area classified as attainment for all criteria pollutants for all time periods relevant to the violations cited herein.

39. The A.B. Brown Generating Station is a "fossil fuel-fired steam electric plant of more than 250 million British thermal units per hour." Therefore, the station constitutes a "major stationary source" within the meaning of 40 C.F.R. § 52.21(b)(1)(i)(a), 326 IAC 2-2-1(gg) (2007) and 326 IAC 2-2-1(z) (2003); and a

"major emitting facility" within the meaning of Section 169(1) of the Act, 42 U.S.C. § 7479(1).

40. In 2004, SIGECO installed Selective Catalytic Reduction (SCR) emission control devices on both units at the A.B. Brown Station.

41. For the past 5 years, SIGECO has reported sulfur dioxide emission exceedances to IDEM in its Quarterly Deviation and Compliance Monitoring Report. Table 1 below contains a summary of those exceedances. SIGECO reported a total of 650 hours of sulfur dioxide emission exceedences between 2006 and 2011.

Table 1: SO_2 Exceedances (in hours)

		Unit 2
2006:	3rd Quarter	33
	4th Quarter	22
2007:	1st Quarter	25
	2nd Quarter	19
	3rd Quarter	16
	4th Quarter	23
2008:	1st Quarter	19
	2nd Quarter	32
	3rd Quarter	55
	4th Quarter	54
2009:	1st Quarter	38
	2nd Quarter	12
	3rd Quarter	11
	4th Quarter	39
2010:	1st Quarter	52
	2nd Quarter	55
	3rd Quarter	29
	4th Quarter	25
2011:	1st Quarter	43
	2nd Quarter	48

C. NOTICE AND FINDING OF VIOLATIONS

Violations of the Prevention of Significant Deterioration Provisions

42. The installation of the Selective Catalytic Reduction (SCR) system on Unit 1 at the A.B. Brown Generating Station in 2004 resulted in a significant net emissions increase and significant emissions increase of sulfuric acid mist (H_2SO_4), as defined in 40 C.F.R. § 52.21, 326 IAC 2-2-1(cc) (2003) and 326 IAC 2-2-1(jj) and (xx) (2007).

43. The installation of the Selective Catalytic Reduction (SCR) system on Unit 2 at the A.B. Brown Generating Station in 2004 resulted in a significant net emissions increase and significant emissions increase of sulfuric acid mist (H_2SO_4), as defined in 40 C.F.R. § 52.21, 326 IAC 2-2-1(cc) (2003) and 326 IAC 2-2-1(jj) and (xx) (2007).

44. The installation of each SCR constituted a "major modification," as that term is defined in 40 C.F.R. § 52.21, 326 IAC 2-2-1(x) (2003) and 326 IAC 2-2-1(ee) (2007).

45. SIGECO failed to obtain a PSD permit for each of the 2004 SCR installations as required by 40 C.F.R. § 52.21 and 326 IAC 2-2-2(b) (2003) and 326 IAC 2-2-2(c) (2007).

46. SIGECO violated and continues to violate Section 165 of the Act, 42 U.S.C. § 7475, 40 C.F.R. § 52.21, 326 IAC 2-2-2(b) (2003) and 326 IAC 2-2-2(c) (2007) by constructing major modifications to an existing major source at the A.B. Brown Generating Station without applying for and obtaining PSD permits and by operating the modified facility without installing BACT.

47. SIGECO violated PSD permit no. (65) 1355 by exceeding the 0.69 lbs/mmBtu emission limitation for a total of 650 hours from 3rd quarter 2006 to 2nd quarter 2011.

Violations of the Title V Permit Provisions

48. SIGECO failed and continues to fail to submit a timely and complete Title V permit applications for the installation of SCRs at the A.B. Brown Generating Station which include all applicable requirements, including, but not limited to, the requirement to apply, install and operate BACT for sulfuric acid mist at the station's units 1 and 2, and also failed to supplement or correct the Title V permit application in violation of Sections 502, 503 and 504 of the Act, 42 U.S.C. §§ 7661a, 7661b and 7661c; the regulations at 40 C.F.R. Part 70, including, but not limited to, 40 C.F.R. §§ 70.1(b), 70.5, 70.6 and 70.7(b); and the Indiana Title V provisions at 35 IAC 201 and IAC 2-7.

49. SIGECO violated the A.B. Brown Part 70 Operating Permit #T 129-26415-00010 by exceeding the 0.69 lbs/mmBtu emission limitation in Condition D.2.1(b) for 650 hours from 3rd quarter 2006 to 2nd quarter 2011.

ENFORCEMENT AUTHORITY

50. Sections 113(a)(1) of the Act, 42 U.S.C. § 7413(a)(1), provides that at any time after the expiration of 30 days following the date of the issuance of a Notice of Violation, the Administrator may, without regard to the period of violation, issue an order requiring compliance with the SIP, issue an administrative penalty order pursuant to section 113(d), or bring a civil action pursuant to Section 113(b) for injunctive relief

and/or civil penalties.

51. Section 113(a)(3) of the Act, 42 U.S. C. § 7413(a)(3), provides that if the Administrator finds that a person has violated, or is in violation of any requirement or prohibition of any rule promulgated under Title V of the Act, the Administrator may issue an administrative penalty order under Section 113(d), issue an order requiring compliance with such requirement or prohibition, or bring a civil action pursuant to Section 113(b) for injunctive relief and/or civil penalties.

Dated 11/7/11

Cheryl L. Newton
Director
Air and Radiation Division

CERTIFICATE OF MAILING

I, Tracy Jamison, certify that I sent a Notice and Finding of Violations, No. **EPA-5-12-IN-01** by Certified Mail, Return Receipt Requested, to:

Bill Doty, Executive Vice President
Utility Operations, President VUH
Southern Indiana Gas and Electric Company
P.O. Box 209
Evansville, Indiana 47702-0209

Allen K. Rose
Southern Indiana Gas and Electric Company
(Vectren Corporation)
1 North Main St
Evansville, Indiana 47711-5446

I also certify that I sent copies of the Notice and Finding of Violations by first class mail to:

Phil Perry, Branch Chief
Office of Air Quality / Compliance Branch
Indiana Department Environmental Management
100 North Senate Avenue, Room IGCN 1003
Indianapolis, Indiana 46206-2251

On the 9 day of November, 2011

Tracy Jamison

Tracy Jamison,
Office Automation Assistant
Planning and Administration Section

Certified Mail Receipt Number: 7009 1680 0000 7673 0006
7009 1680 0000 7672 8225