U.S. DISTRICT COURT INDIANAPOLIS DIVISION

# IN THE UNITED STATES DISTRICT COUNTEDEC 16 PM 1: 33 FOR THE SOUTHERN DISTRICT OF INDIANA

UNITED STATES OF AMERICA,	LAURA A BRIC OLERK	36S
Plaintiff		
<b>v.</b>	) Civil Action No.: IP99-1692 C-M	/F
SOUTHERN INDIANA GAS & ELECTRIC COMPANY, INC.	)	
Defendant	)	

### JOINT STIPULATION TO MODIFY CONSENT DECREE

WHEREAS, on August 13, 2003, this Court entered a Consent Decree in the above-captioned matter (Civil Action No.: IP99-1692 C-M/F).

WHEREAS, the Parties to the Decree (Plaintiff the United States of America and Defendant Southern Electric Gas & Electric Company, Inc., (SIGECO) have agreed to seek to modify the Consent Decree in the manner set forth herein.

WHEREAS, Paragraph 138 of the Consent Decree provides that "[t]he terms of this Consent Decree may be modified only by a subsequent written agreement signed by all the Parties. Where the modification constitutes a material change to any term of this Decree, it shall be effective only upon written approval by the Court."

WHEREAS, the Consent Decree requires, *inter alia*, that SIGECO continuously operate its Flue Gas Desulfurization system (FGD) at all times that F.B. Culley Station Units 2 and 3 are in operation, but allows SIGECO to continue to operate F.B. Culley Unit 2 and bypass the FGD

during both planned and unplanned outages of the FGD, provided that certain conditions regarding utilization of "Compliance Coal" are met.

WHEREAS, the Parties disagree about the nature, frequency and propriety of FGD bypass events at F.B. Culley Station over the past several years.

WHEREAS, the Parties have engaged in discussions recently and have reached an agreement on a modification to the Consent Decree as set forth herein that would require SIGECO to continuously operate the FGD at all times that F.B. Culley Units 2 and 3 are in operation and would eliminate the FGD bypass for F.B. Culley Unit 2.

WHEREAS, the Consent Decree requires, *inter alia*, that SIGECO construct and operate a Sulfuric Acid Reduction Project (Project) to reduce SO<sub>3</sub> content in the F.B. Culley Unit 3 flue gas; continue to operate the Project until December 31, 2010, unless the Parties agree that the Project is no longer viable and effective to reduce sulfuric acid emissions; and provide a Final Report detailing the emission reductions achieved and the costs incurred.

WHEREAS, the Parties disagree whether SIGECO's termination of the Sulfuric Acid Reduction Project at F.B. Culley Station in 2006 was done with sufficient notice and approval and with adequate cause, and whether SIGECO provided a Final Report about the Project.

WHEREAS, the Parties have engaged in discussions recently and have reached an agreement on a modification to the Consent Decree as set forth herein that would require SIGECO construct and operate on a permanent basis sorbent injection systems at F.B. Culley Unit 3 and at nearby A.B. Brown Station Units 1 and 2 to reduce SO<sub>3</sub> content in the flue gasses and mitigate resulting sulfuric acid emissions to meet specified emission limits at those units.

WHEREAS, on November 7, 2011, EPA issued a Notice of Violations to SIGECO regarding sulfuric acid emissions from the A.B. Brown Station that allegedly resulted in

violations of Clean Air Act New Source Review requirements, Brown Station's Clean Air Act Title V permits, and related provisions of the Indiana State Implementation Plan. The Parties disagree regarding the merits of these allegations, but agree that operation of sorbent injection systems at A.B. Brown Units 1 and 2 will mitigate the sulfuric acid emissions and that entry of this modified Consent Decree shall resolve all allegations in the Notice of Violations.

WHEREAS, the Parties agree and acknowledge that final approval of the United States and entry of this Joint Modification is subject to the procedures set forth in 28 C.F.R. § 50.7, which provides for notice to be published in the Federal Register, an opportunity for public comment, and the right of the United States to withdraw or withhold consent if the comments disclose facts or considerations which indicate that the Joint Modification is inappropriate, improper, or inadequate. Neither Party will oppose entry of this Joint Modification by this Court or challenge any provision of this Joint Modification unless the United States has notified SIGECO, in writing, that the United States no longer supports entry of the Joint Modification.

NOW THEREFORE, and as described in the United States' Notice of Lodging filed contemporaneously herewith, the Parties hereby stipulate to modify the Consent Decree, as follows:

#### 1. Add Paragraph 30A, as follows:

30A. "SIGECO Brown Station" means, solely for purposes of this Consent Decree, the two (2) coal-fired, steam generating boilers designated as (with the rated MW(gross) capacity of each Unit noted in parentheses): A.B. Brown Unit 1 (265 MW) A.B. Brown Unit 2 (265 MW).

- 2. Add Paragraph 32A, as follows:
  - 32A. "Sorbent Injection System" shall mean a sulfuric acid control system consisting of the injection of a reagent into the flue gas stream to react with the acid gases and reduce the outlet sulfuric acid Emission Rate.
- 3. Modify Paragraph 48, as follows (additions are <u>underlined</u> and deletions are <u>struck</u>):

  48. SIGECO shall continuously operate the FGD serving <u>F.B. Culley</u> Units 2 and 3 at all times that the <u>Units are either</u> of the Units <u>are is in operation and burning coal.</u>, <u>except as provided in Paragraph 49 below. Following startup of the Units</u>, SIGECO need not operate the FGD <u>until during startup when only natural gas is being utilized, but the FGD <u>must be operated as soon as either Unit is fired with any coal.</u></u>
- 4. Delete Paragraph 49, as follows:
  - 49. Deleted.
- 5. Modify Paragraph 62, as follows (additions are <u>underlined</u> and deletions are <del>struck)</del>:
  62. By no later than June 30, 2007, SIGECO shall install and operate a Baghouse (a PM Control Device) at <u>F.B. Culley</u> Unit 3 that achieves and maintains a PM Emission Rate of 0.015 lb/mmBTU, on a 3-hour rolling average basis.
- 6. Replace Paragraphs 64 and 65 with the following:
  - 64. By no later than September 1, 2015, SIGECO shall install, correlate, operate, and maintain a PM continuous emissions monitor (PM CEMS) on the stack serving F.B. Culley Units 2 and 3, as specified below. The PM CEMS shall comprise a continuous particle mass monitor capable of measuring filterable particulate matter concentrations, directly or indirectly, on an hourly average basis, and a diluent monitor used to convert the concentration to units expressed in lb/mmBTU. The PM CEMS installed must be

appropriate for the anticipated stack conditions and capable of measuring PM concentrations on an hourly average basis. SIGECO shall maintain, in an electronic database, the hourly average emission values of all PM CEMS in lb/mmBTU. Except for periods of monitor Malfunction, maintenance, or repair, SIGECO shall operate the PM CEMS at all times when any Unit it serves is operating, including during Unit startup, shutdown, and Malfunction.

65. Within sixty (60) days of entry of this Modification of the Consent Decree, SIGECO shall submit to EPA for EPA's review and approval pursuant to Section XIII (Review and Approval of Submittals) of this Consent Decree a plan for the installation and correlation of the PM CEMS and a proposed Quality Assurance/Quality Control ("QA/QC") protocol that shall be followed for the PM CEMS. In developing both the plan for installation and correlation of the PM CEMS and the QA/QC protocol, SIGECO shall use the criteria set forth in 40 C.F.R. Part 60, Appendix B, Performance Specification 11, and Appendix F, Procedure 2, or equivalent criteria specified in and allowed by applicable Indiana SIP provision(s). Because of the installation and operation of sorbent injection systems at F.B. Culley Station, SIGECO may use Method 5 (at the temperature specified in 40 C.F.R. Part 60, Appendix A-3) or Method 5 (at the temperature specified in 40 C.F.R. Part 63, Subpart UUUUU, Table 5) for correlation of its PM CEMS. Upon approval of the plan for installation and correlation of the PM CEMS and the QA/QC protocol, SIGECO shall install, correlate, operate, and maintain the PM CEMS in accordance with the approved plan and QA/QC protocol.

#### 7. Add Paragraph 65A, as follows:

65A. SIGECO shall report, pursuant to Section XII (Periodic Reporting), all 3-Hour Rolling Average Emission Rate data recorded by the PM CEMS, in electronic format (Microsoft Excel compatible) to EPA.

#### 8. Add Paragraph 76A, as follows:

76A. Within sixty (60) days of entry of this Modification of the Consent Decree, SIGECO shall begin operation of a Sorbent Injection System at F.B. Culley Unit 3 to mitigate SO<sub>3</sub> emissions and resulting sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) emissions from that Unit. Thereafter, SIGECO shall continuously operate the Sorbent Injection System at Culley Unit 3 on a permanent basis at all times the Unit is in operation, and achieve and maintain a H<sub>2</sub>SO<sub>4</sub> emission limit of 0.009 lb/mmBTU.

#### 9. Add Paragraph 76B, as follows:

76B. No later than December 31, 2015, SIGECO shall complete installation of a Sorbent Injection System at A.B. Brown Unit 1 to mitigate SO<sub>3</sub> emissions and resulting sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) emissions from that Unit. Thereafter, SIGECO shall continuously operate the Sorbent Injection System at Brown Unit 1 on a permanent basis at all times the Unit is in operation, and achieve and maintain a H<sub>2</sub>SO<sub>4</sub> emission limit of 0.008 lb/mmBTU.

#### 10. Add Paragraph 76C, as follows:

76C. No later than December 31, 2015, SIGECO shall complete installation of a Sorbent Injection System at A.B. Brown Unit 2 to mitigate SO<sub>3</sub> emissions and resulting sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) emissions from that Unit. Thereafter, SIGECO shall continuously operate the Sorbent Injection System at Brown Unit 2 on a permanent basis at all times the Unit is in operation, and achieve and maintain a H<sub>2</sub>SO<sub>4</sub> emission limit of 0.010 lb/mmBTU.

## 11. Add Paragraph 76D, as follows:

76D. Within six (6) months of entry of this Modification of the Consent Decree, and continuing annually thereafter, SIGECO shall conduct a stack test for H<sub>2</sub>SO<sub>4</sub> at F.B. Culley Unit 3. Within six (6) months of installation of the Sorbent Injection Systems at A.B. Brown Unit 1 and Unit 2, and continuing annually thereafter, SIGECO shall conduct a stack test for H<sub>2</sub>SO<sub>4</sub> at each Brown Unit.

## 12. Add Paragraph 76E, as follows:

76E. To determine compliance with the H<sub>2</sub>SO<sub>4</sub> Emission Rate established in Paragraphs 76A through 76D, SIGECO shall use the reference methods and procedures specified in EPA Condition Test Method 13 (CTM-13) or an alternative method requested by SIGECO and approved by EPA. Each H<sub>2</sub>SO<sub>4</sub> stack test shall consist of three separate runs, performed under representative operating conditions at high, mid and low load points along a performance curve. Each stack test shall be conducted isokinetically at a location in the stack where the gas velocity is average and the sampling rate is the same linear velocity as the gas going up the stack. SIGECO must verify that the stack size/geometry is such that stack flue gases are not stratified at the sampling location. SIGECO shall calculate the H<sub>2</sub>SO<sub>4</sub> Emission Rate for each Unit from the stack test results, in accordance with 40 C.F.R. § 60.8(f). The results of each stack test shall be reported in lb/mmBTU. At least 180 days prior to conducting such H<sub>2</sub>SO<sub>4</sub> testing, SIGECO shall submit a test protocol to EPA pursuant to Section XIII (Review and Approval of Submittals) of this Consent Decree identifying the unit operating loads proposed for the high, mid and low load ranges along the performance curve and anticipated reagent injection rates and the basis for such rates. The stack testing protocol must include: (a) a cross-sectional diagram of each stack showing the stack diameter and the proposed sampling location; (b) the flow profile across each stack; and (c) the proposed approximate distance between the stack wall and the sample collection point. The final stack test reports shall identify for each test the traverse point selected for the sampling location and the distance of the sampling point from the stack wall, assuring a reasonable distance between the stack wall and the sampling nozzle pursuant to EPA guidelines, and shall show the flow rate at the sampling point and the average flow rate from the stack traverse. The results of each H<sub>2</sub>SO<sub>4</sub> stack test shall be submitted to EPA within sixty (60) days of the completion of each test.

## 13. Add Paragraph 76F, as follows:

- 76F. At all times the corresponding Unit is in operation, SIGECO shall maintain the reagent injection rate utilized during the last successfully demonstrated compliant stack test and the corresponding performance curve. SIGECO shall maintain a daily log of the reagent injection rates maintained at each Unit, including the following information: date; average daily unit load (MWg); operating hours for each day; reagent injection flow rate (gallons per minute and tons per hour); and reagent injection density (if injecting liquid reagent).
- 14. Modify Paragraph 90, as follows (additions are <u>underlined</u> and deletions are <u>struck</u>):
  90. For any failure by SIGECO to comply with the terms of this Consent Decree, and subject to the provisions of Sections XV (Force Majeure) and XVI (Dispute Resolution),
  SIGECO shall pay, within 30 days after written demand to SIGECO by the United States the following stipulated penalties to EPA:

Consent Decree Violation	Stipulated Penalty (Per day per violation, unless otherwise specified)
a. Failure to pay the civil penalty as specified in Section X (Civil Penalty) of this Consent Decree	\$10,000
b. Failure to meet any 30-Day Rolling Average Emission Rate, any 30-Day Rolling Average Removal Efficiency, any 3-Hour Rolling Average Emission Rate, or any other Emission Rate or emission limitation, where the violation is less than 5% in excess of the limits set forth in this Consent Decree	\$2,500 (\$250 for any 3-Hour Rolling Average Emission Rate violation)
c. Failure to meet any 30-Day Rolling Average Emission Rate, any 30-Day Rolling Average Removal Efficiency, any 3-Hour Rolling Average Emission Rate, or any other Emission Rate or emission limitation, where the violation is equal to or greater than 5% but less than 10% in excess of the limits set forth in this Consent Decree	\$5,000 (\$500 for any 3-Hour Rolling Average Emission Rate violation)
d. Failure to meet any 30-Day Rolling Average Emission Rate, any 30-Day Rolling Average Removal Efficiency, any 3-Hour Rolling Average Emission Rate, or any other Emission Rate or emission limitation, where the violation is equal to or greater than 10% in excess of the limits set forth in this Consent Decree	\$10,000 (\$1000 for any 3-Hour Rolling Average Emission Rate violation)
e. Failure to install, commence operation, or continue operation of the NOx, SO <sub>2</sub> , <u>H<sub>2</sub>SO<sub>4</sub></u> , and or PM pollution control devices on any Unit, or failure to retire a Unit	\$10,000 during the first 30 days, \$27,500 thereafter
f. Failure to conduct <u>any required</u> performance tests of PM emissions, as required by Section VII	\$1,000
g. Failure to apply for the permits required by Section XVII	\$1,000
h. Failure to timely submit, modify, or implement as approved the reports, plans, studies, analyses, protocols, or other submittals required by this Consent Decree	\$750 for the first ten days, \$1,000 thereafter.
i. Using, selling, or transferring SO <sub>2</sub> Allowances in contravention of Section VI	(a) \$2,000 per SO <sub>2</sub> Allowance ton, plus (b) the surrender of SO <sub>2</sub> Allowances in an amount equal to the SO <sub>2</sub> Allowances used, sold, or transferred in violation of the Decree
j. Using, selling or transferring NOx allowances or credits in contravention of Section V	(a) \$4,000 per NOx Allowance and credit ton, plus (b) the surrender of NOx allowances or credits in an amount equal to the NOx allowances or credits used, sold, or transferred in violation of the Decree

k. Failure to surrender an SO <sub>2</sub> Allowance in accordance with Section VI	(a) \$27,500 plus (b) \$1,000 per SO <sub>2</sub> Allowance
1. Failure to demonstrate the third-party surrender of an SO <sub>2</sub> Allowance in accordance with Section VI	\$2,500
m. Failure to undertake and complete the Environmental Project in compliance with Section IX (Environmental Project)	\$1,000 for the first 30 days, \$5,000 thereafter
n. Any other violation of this Consent Decree	\$1,000

- 15. All provisions of the Consent Decree unaffected by these modifications, including but not limited to the provisions of Sections XIV (Stipulated Penalties); XVII (Permits and State Implementation Plan); and XVIII (Information Collection and Retention), shall operate in conjunction with these new provisions in the same manner as had the new provisions been included in the Decree when it was entered by the Court in the above-captioned action on August 13, 2003.
- 16. Except as specifically provided in this Joint Stipulation, the Parties intend that all other terms and conditions of the Consent Decree will remain unchanged and in full effect.

Signature Page for Joint Stipulation to Modify *United States of America v. Southern Indiana Gas & Electric Company* Consent Decree

## FOR THE UNITED STATES DEPARTMENT OF JUSTICE

Respectfully submitted,

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## FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Respectfully submitted,

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## FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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FOR SOUTHERN INDIANA GAS & ELECTRIC COMPANY, INC.

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Vice President of Power Supply

Southern Indiana Gas & Electric Company