



Louisville Metro Air Pollution Control District
 850 Barret Avenue
 Louisville, Kentucky 40204-1745



Permit No.: 312-05-C (R1)

Plant ID 11

Effective Date: [Click here to enter a date.](#) Expiration Date: [Click here to enter a date.](#) Permit Fee \$ 7699.00

American Synthetic Rubber Company
 4500 Campground Rd
 Louisville, KY 40216

is authorized to construct the described process equipment by the Louisville Metro Air Pollution Control District. Authorization is based on information provided with the application submitted by the company and in accordance with applicable regulations and the conditions specified herein.

Process equipment description:

Two (2) 212 MMBtu/hr coal-fired, #2 oil-fired, or natural gas fired spreader stoker Boilers (#1 and #2)

Applicable Regulation(s): 2.03, 2.04, 2.05, 2.16, 6.42, 7.06, 7.02 (40 CFR 60 Subpart Db)

Process reference(s): 154-97-TV

Responsible Official (RO): Bradley Karas

Application Received 06/10/2009

RO Title: Chief Operating Officer

Permit Writer: Stephen Taylor

{Manager}
 Air Pollution Control Officer

Date of Final Draft [Click here to enter a date.](#)

Application No. 11337

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of applicable fees is not made after receipt of the statement of fees (SOF). The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

General Conditions

- G1. The owner or operator of the affected facility covered by this permit shall notify the District of any process change, equipment change, material change, or change in method or hours of operation. This requirement is applicable to those changes that may have the potential for increasing the emission of air contaminants to a level in excess of the applicable limits or standards specified in this permit or District regulations.
- G2. The owner or operator shall obtain new or revised permits from the District when:
(See District Regulation 2.16 for Title V sources. See District Regulation 2.17 for FEDOOP sources. See District Regulation 2.03 for other sources.)
- a. The company relocates to a different physical address.
 - b. The ownership of the company is changed.
 - c. The name of the company as shown on the permit is changed.
 - d. Permits are nearing expiration or have expired.
- G3. The owner or operator shall submit a timely application for changes according to G2. For minor sources only, the District does not require application for permit renewal. The District automatically commences the process of permit renewal for minor sources upon expiration. Timely renewal is not always achievable; therefore, the company is hereby authorized to continue operation in compliance with the latest District permit(s) until the District issues the renewed permit(s).
- G4. The owner or operator shall not be authorized to transfer ownership or responsibility of the permit. The District may transfer permits after appropriate notification has been received and review has been made.
- G5. The owner or operator shall pay the required permit fees within 30 days after issuance of the SOF by the District, unless other arrangements have been proposed and accepted by the District.
- G6. This permit allows operation 8,760 hours per year unless specifically limited elsewhere in this permit.

- G7. The owner or operator shall submit emission inventory reports as required by Regulation 1.06.
- G8. The owner or operator shall timely report abnormal conditions or operational changes which may cause excess emissions as required by Regulation 1.07.
- G9. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.
- G10. If a change in the "Responsible Official" (RO) occurs during the term of this permit, the owner or operator shall provide written notification (Form 9400A and AP-0208) to the District within 30 calendar days following the date a change in the designated RO occurs for this facility.

Specific Conditions

S1. Standards (Regulation 2.03, section 5.1)

a. NO_x

- i. When Boiler #1 and/or Boiler #2 are combusting coal, the owner or operator shall not allow the NO_x emissions from Boiler #1 and Boiler #2 combined to exceed 254.4 pounds per hour based on a 3 hour averaging period. (Regulation 2.05; Regulation 7.06, section 7.7.3 and 7.8)
- ii. When Boiler # 1 and/or Boiler #2 are combusting coal, the owner or operator shall not allow NO_x emissions from Boiler #1 and Boiler #2 to exceed 0.60 lb/MMBtu of heat input based on a 30-day rolling average. (Regulation 2.05; 40 CFR 60.44b(a)(3)(ii) and 60.44b(i)) (See Comment 1)
- iii. When Boiler # 1 and/or Boiler #2 are combusting coal, the owner or operator shall not allow the NO_x (expressed as NO₂) emissions from Boiler #1 and Boiler #2 to exceed 0.50 lb/MMBtu of heat input, based upon a 30-day rolling average. This limit applies at all times, including periods of startup, shutdown, or malfunction. (Regulation 6.42, section 4.3) (See Comment 1)

b. SO₂

- i. When Boiler # 1 and/or Boiler #2 are combusting coal, the owner or operator shall not allow or cause to be discharged into the atmosphere any gases from Boiler #1 and Boiler #2 that contain SO₂ in excess of 10 % (0.10) of the potential SO₂ emission rate (90 % reduction) or that contain sulfur dioxide in excess of 0.20 lbs/MM Btu. Both the percent reduction requirement and the emission limit are based on a 30-day rolling average. The sulfur dioxide emission limits and percent reduction requirements apply at all times, including periods of startup, shutdown, and malfunction. (40 CFR 60.42b(k)(4), 60.42b(e) and 60.42b(g))
- ii. When Boiler # 1 and/or Boiler #2 are combusting coal, the owner or operator shall not allow the SO₂ emissions from each of Boiler #1 and Boiler #2 to exceed 1.2 lbs/MM Btu actual heat input based on a 30-day rolling average. (Regulation 7.06, section 5.1.2)
- iii. When Boiler # 1 and/or Boiler #2 are combusting coal, the owner or operator shall not allow or cause to be discharged into the atmosphere any gases from Boiler #1 and Boiler #2 that contain sulfur dioxide in excess of 0.20 lbs/MM Btu based on a 30-day rolling average. The sulfur dioxide emission limit applies at all times, including periods of startup, shutdown, and malfunction. (Regulation 2.05 (BACT), section 5.7.5))

- iv. The coal combusted shall not exceed the maximum sulfur content to meet the definition of low sulfur coal (1.0 %S or less) on a monthly average. (Regulation 2.05 (BACT, section 5.7.5))
- v. The owner or operator shall have an Initial Operator Training and Certification Program, which involves 3 - 6 months of training and testing, and includes a formal written module on the mechanical aspects of the spray reactor atomizer drives, lube oil unit, and the operation of the SO₂ scrubbing process (Regulation 2.05(BACT)).
- vi. The owner or operator shall recertify all operators of the SO₂ Removal System and Baghouse every three (3) years after initial certification (Regulation 2.05 (BACT)).
- vii. The owner or operator shall review and upgrade the Operator Training and Certification Program at least every 2 years as recommended by a root cause analysis team (Regulation 2.05 (BACT)).
- viii. The owner or operator shall have a formal written Operation and Maintenance Plan for the SO₂ Removal System and the Baghouse. The Operation and Maintenance Plan shall at a minimum require the owner or operator to: (Regulation 2.05 (BACT))
 - 1) Maintain an inventory of at least six (6) output shaft assemblies to rotate among C-U4-SDR gearboxes.
 - 2) Maintain an inventory of at least two (2) redundant atomizers consisting of drive motor, gearbox, and atomizer disc.
 - 3) Maintain an inventory of spare parts for the individual components of the atomizer drive, such as bearings, shafts, and seals.
 - 4) Maintain an inventory of spare parts for the lube oil system, such as supply pumps, scavenger pumps, motors, pressure control valves, flow meters, and hoses.
 - 5) Maintain an inventory of spare parts for the lime system, such as lime tank agitator motor and gearbox, lime slurry pumps, and flow control valves.
 - 6) Maintain ports on the lower cone of the C-U4-SDR.
 - 7) Inspect the buildup of ash on the inner wall of the spray reactor cone at least quarterly.
 - 8) Maintain an insulation blanket on the C-U4-SDR lower cone in order for the exhaust gases to remain above the dew point and allow ash to flow out.

- 9) Maintain at least two (2) sets of lime lines, including lube oil cooler and strainers, to allow the company to acidize one set while the other is still operating. Each of the lime lines shall be acidized at least once every 5-7 months.
- 10) Check the concentricity of all the gearboxes at least once every five years to stay within the specification for vibration tolerance.
- 11) Perform a polarity check each time one of the C-U4-SDR gearbox motors undergoes repair or preventative maintenance.
- 12) For the baghouse, the owner or operator shall maintain the differential pressure across the baghouse between 1.5 to 10 inches of water.
- 13) Visually inspect the baghouse at least once per month for structural and mechanical integrity. The visual inspection shall include at a minimum the exterior of the baghouse, the baghouse doors, and the dampers.
- 14) Open and inspect the baghouse modules 1 through 12 at least once per year. The visual inspection will include at a minimum the epoxy coating on the inside of the baghouse modules, the ductwork, and the connection points for the bags. As needed, shake and re-tension all bags, clean ductwork, and replace faulty connections.
- 15) Grease bearing on reverse air fan and air damper every 5 -7 months, and inspect the motor, housing, belts, and bearings at least once per year, repairing or replacing as needed.

c. **PM**

- i. When Boiler # 1 and/or Boiler #2 are combusting coal, the owner or operator shall not allow the PM emissions from Boiler #1 and Boiler #2 combined to exceed 12.72 pounds per hour. (Regulation 2.05)
- ii. When Boiler # 1 and/or Boiler #2 are combusting coal, the owner or operator shall not allow the PM emissions from Boiler #1 and Boiler #2 to exceed 0.030 lb/MM Btu heat input based on a 30-day rolling average. (Regulation 2.05)
- iii. When Boiler # 1 and/or Boiler #2 are combusting coal, the owner or operator shall not cause to be discharged into the atmosphere PM emissions from Boiler #1 and Boiler #2 that exceed 0.051 lb/MM Btu heat input. This standard applies at all times, except during periods of start-up, shutdown or malfunction. (40 CFR 60.43b(a)(1)(i) and 60.43b(g))

- iv. When Boiler # 1 and/or Boiler #2 are combusting coal, the owner or operator shall not cause to be discharged into the atmosphere PM emissions from Boiler #1 and Boiler #2 that exceed 0.10 lb/MM Btu actual heat input. (Regulation 7.06, section 4.1.2)

d. **Opacity**

- i. For Boiler #1 and Boiler #2, when combusting coal, the owner or operator shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27% opacity. This standard applies at all times, except during periods of startup, shutdown or malfunction. (40 CFR 60.43b(f) and 63.43b(g))
- ii. For Boiler #1 and Boiler #2, when combusting coal, the owner or operator shall not cause to be discharged into the atmosphere from each boiler particulate matter emissions which exhibit greater than 20% opacity except: (Regulation 7.06, section 4.2)
 - 1) A maximum of 40% opacity shall be permissible for not more than two consecutive minutes in any 60 consecutive minutes; (Regulation 7.06, section 4.2.1)
 - 2) A maximum of 40% opacity shall be permissible for not more than six consecutive minutes in any 60 consecutive minutes during cleaning the fire box or blowing soot; or (Regulation 7.06, section 4.2.2)
 - 3) For emissions from any of the boilers during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations. (Regulation 7.06, section 4.2.3)

e. **CO**

- i. When Boiler #1 and/or Boiler #2 are combusting coal, the owner or operator shall not allow the CO emissions from Boiler #1 and Boiler #2 combined to exceed 90.6 pounds per hour. (Regulation 2.05)
- ii. When Boiler #1 and/or Boiler #2 are combusting coal, the owner or operator shall not allow the CO emissions from Boiler #1 and Boiler #2 to exceed 0.21 lb/MM Btu heat input based on a 30-day rolling average. (Regulation 2.05)

f. **Lead (Pb)**

When combusting coal, the owner or operator shall not allow the Lead (Pb) emissions from Boiler #1 and Boiler #2 combined to exceed 0.00114 lb/hr. (Regulation 2.05)

g. Sulfuric Acid (H₂SO₄)

- i. When Boiler #1 and/or Boiler #2 are combusting coal, the owner or operator shall not allow the H₂SO₄ emissions from Boiler #1 and Boiler #2 combined to exceed 1.73 lbs/hr. The District has determined the Spray Dryer Reactor, C-U4-SDR, for sulfur dioxide control, meets the PSD BACT requirements for H₂SO₄. Therefore, SO₂ is used as a surrogate for H₂SO₄. (Regulation 2.05; PSD Final Determination Document, dated October 24, 1990)
- ii. When Boiler #1 and/or Boiler #2 are combusting coal, the owner or operator shall not allow the H₂SO₄ emissions from Boiler #1 and Boiler #2 to exceed 0.00408 lb/MM Btu heat input capacity. The District has determined the Spray Dryer Reactor, C-U4-SDR, for sulfur dioxide control, meets the PSD BACT requirements for H₂SO₄. (Regulation 2.05; PSD Final Determination Document, dated October 24, 1990)

h. VOC

When Boiler #1 and/or Boiler #2 are combusting coal, the owner or operator shall not allow the VOC emissions from Boiler #1 and Boiler #2 combined to exceed 1.27 lbs/hr. (Regulation 2.04)

S2. Monitoring (Regulation 2.03, section 5.1)

a. NO_x

- i. For Boiler #1 and Boiler #2, when combusting coal, the owner or operator shall install, calibrate, maintain and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere. (40 CFR 60.48b(b)(1) and Regulation 6.42)
- ii. The continuous monitoring systems shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. (40 CFR 60.48b(c))
- iii. The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor required by 40 CFR 60.48b(b)(1) shall be expressed in ng/J or lb/million Btu heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR

60.13(b). At least 2 data points must be used to calculate each 1-hour average. (40 CFR 60.48b(d))

- iv. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems. (40 CFR 60.48b(e))
- v. When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7a, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. (40 CFR 60.48b(f))

b. SO₂

- i. For Boiler #1 and Boiler #2, when combusting coal, the owner or operator shall install, calibrate, maintain and operate a continuous emission monitoring system (CEMS) for measuring SO₂ concentrations and carbon dioxide (CO₂) concentrations and shall record the output of the systems. The SO₂ and carbon dioxide concentrations shall both be monitored at the inlet and outlet of the SO₂ control device. (40 CFR 60.47b(a))
- ii. The owner or operator of an affected facility shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator or the reference methods and procedures as described in 40 CFR 60.47b(b). (40 CFR 60.47b(c))
- iii. The 1-hour average sulfur dioxide emission rates measured by the CEMS required by 40 CFR 60.47b(a) and required under 40 CFR 60.13(h) is expressed in ng/J or lb/million Btu heat input and is used to calculate the average emission rates under 40 CFR 60.42b. Each 1-hour average sulfur dioxide emission rate must be based on more than 30 minutes of steam generating unit operation and include at least 2 data points with each representing a 15-minute period. Hourly sulfur dioxide emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day. (40 CFR 60.47b(d))
- iv. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the CEMS. (40 CFR 60.47b(e))

- v. All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 (Appendix B of 40 CFR Part 60). (40 CFR 60.47b(e)(1))
 - vi. Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 (Appendix F of 40 CFR Part 60). (40 CFR 60.47b(e)(2))
 - vii. The span value of the sulfur dioxide CEMS at the inlet to the sulfur dioxide control device is 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the fuel combusted, and the span value of the CEMS at the outlet to the sulfur dioxide control device is 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the fuel combusted. (40 CFR 60.47b(e)(3))
 - viii. For the Operation and Maintenance Plan, see recordkeeping requirement in Specific Condition S3.b.v.
- c. **PM**
- For Boiler #1 and Boiler #2, when combusting coal, see Specific Condition S5 for the testing requirements. (See Comment 12)
- d. **Opacity**
- For Boiler #1 and Boiler #2, when combusting coal, the owner or operator shall install, calibrate, maintain and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system. (40 CFR 60.48b(a))
- e. **CO**
- For Boiler #1 and Boiler #2, when combusting coal, the owner or operator submitted a one-time compliance demonstration on March 10, 2004, showing that the potential CO emissions do not exceed the applicable standards in Specific Condition S1.e. Therefore, there are no CO compliance monitoring, recordkeeping, or reporting requirements for these boilers.
- f. **Lead (Pb)**
- For Boiler #1 and Boiler #2, when combusting coal, the owner or operator submitted a one-time compliance demonstration on August 31, 2000, showing that the potential Lead (Pb) emissions do not exceed the standards in Specific Condition S1.f. Therefore, there are no Lead (Pb) compliance monitoring, recordkeeping, or reporting requirements for these boilers.
- g. **Sulfuric Acid (H₂SO₄)**

For Boiler #1 and Boiler #2, when combusting coal, the District has determined that the SO₂ compliance monitoring requirements in Specific Condition S2.b. are sufficient to assure H₂SO₄ compliance per the PSD Final Determination dated October 24, 1990.

h. **VOC**

For Boiler #1 and Boiler #2, when combusting coal, the owner or operator submitted a one-time compliance demonstration dated March 10, 2004 showing that the potential VOC emissions do not exceed the applicable standards in Specific Condition S1.h. Therefore, there are no VOC compliance monitoring, recordkeeping, or reporting requirements for these boilers.

S3. **Recordkeeping** (Regulation 2.03, section 5.1)

a. **NO_x**

- i. For Boiler #1 and Boiler #2, when combusting coal, the owner or operator shall record and maintain records of the amount of coal fuel combusted during each day and calculate the annual capacity factor individually for coal for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. (40 CFR 60.49b(d))
- ii. For Boiler #1 and Boiler #2, when combusting coal, the owner or operator shall maintain records of the following information for each steam generating unit operating day: (40 CFR 60.49b(g))
 - 1) Calendar date. (40 CFR 60.49b(g)(1))
 - 2) The average hourly nitrogen oxides emission rates (expressed as NO₂) (ng/J or lb/million Btu heat input) measured or predicted. (40 CFR 60.49b(g)(2))
 - 3) The 30-day average nitrogen oxides emission rates (ng/J or lb/million Btu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days. (40 CFR 60.49b(g)(3))
 - 4) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken. (40 CFR 60.49b(g)(4))
 - 5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for

not obtaining sufficient data and a description of corrective actions taken. (40 CFR 60.49b(g)(5))

- 6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data. (40 CFR 60.49b(g)(6))
 - 7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted. (40 CFR 60.49b(g)(7))
 - 8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system. (40 CFR 60.49b(g)(8))
 - 9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3. (40 CFR 60.49b(g)(9))
 - 10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR Part 60 Appendix F, Procedure 1. (40 CFR 60.49b(g)(10))
- iii. For Boiler #1 and Boiler #2, when combusting coal, the owner or operator shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the boilers; any malfunction of the air pollution control equipment; or any periods during which a CEMS or monitoring device is inoperative. (40 CFR 60.7(b))
- iv. For Boiler #1 and Boiler #2, when combusting coal, the owner or operator shall keep a record identifying all deviations from the requirements of the NO_x RACT Plan. (NO_x RACT Plan, Element 7)

b. SO₂

- i. For Boiler # 1 and Boiler #2, when combusting coal, the owner or operator shall maintain records of the following information for each steam generating unit operating day: (40 CFR 60.49b(k))
 - 1) Calendar dates covered in the reporting period. (40 CFR 60.49b(k)(1))
 - 2) Each 30-day average sulfur dioxide emission rate (ng/J or lb/million Btu heat input) measured during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken. (40 CFR 60.49b(k)(2))

- 3) Each 30-day average percent reduction in sulfur dioxide emissions calculated during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken. (40 CFR 60.49b(k)(3))
 - 4) Identification of the steam generating unit operating days that coal or oil was combusted and for which sulfur dioxide or diluent (oxygen or carbon dioxide) data have not been obtained by an approved method for at least 75 percent of the operating hours in the steam generating unit operating day; justification for not obtaining sufficient data; and description of corrective action taken. (40 CFR 60.49b(k)(4))
 - 5) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit. (40 CFR 60.49b(k)(5))
 - 6) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted. (40 CFR 60.49b(k)(6))
 - 7) Identification of times when hourly averages have been obtained based on manual sampling methods. (40 CFR 60.49b(k)(7))
 - 8) Identification of the times when the pollutant concentration exceeded full span of the CEMS. (40 CFR 60.49b(k)(8))
 - 9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3. (40 CFR 60.49b(k)(9))
 - 10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR 60 Appendix F, Procedure 1. (40 CFR 60.49b(k)(10))
 - 11) The annual capacity factor of each fired as provided in 40 CFR 60.49b(d). (40 CFR 60.49b(k)(11))
- ii. To demonstrate compliance with specific condition S1.b.v., the owner or operator shall keep records of the weekly average sulfur content and monthly calculate and record the monthly average sulfur content.
 - iii. For each upset of the sulfur removal system that causes an exceedance, the owner or operator shall form a root cause analysis team to determine the cause of the upset and to prepare a plan to prevent a recurrence of the

upset. The plan shall be kept for each upset. The root cause analysis team shall be composed of operators, engineers, supervisors, and outside consultants as appropriate to address the particular issue being reviewed.

- iv. The owner or operator shall keep records of the Operator Training and Certification Program including the operator's name, date of initial training, and the dates of the subsequent training.
- v. The owner or operator shall keep records of the Operation and Maintenance Plan for the SO₂ Removal System and Baghouse including a list of the spare parts in the inventory, updated quarterly, date and inspection results of the spray reactor cone, date of the lime line acidizing, date and inspection results of the concentricity and polarity checks of the gearboxes.

c. **PM**

For Boiler #1 and Boiler #2, when combusting coal, see Specific Condition S5 for the testing requirements. (See Comment 12)

d. **Opacity**

For Boiler #1 and Boiler #2, when combusting coal, the owner or operator shall maintain records of the opacity. (40 CFR 60.49b(f))

e. **CO**

For Boiler #1 and Boiler #2, when combusting coal, and Boiler #4, when combusting fuel oil, the owner or operator submitted a one-time compliance demonstration dated March 10, 2004 showing that the potential CO emissions do not exceed the applicable standards in Specific Condition S1.e. Therefore, there are no CO monitoring, recordkeeping, or reporting requirements for these boilers.

f. **Lead (Pb)**

For Boiler #1 and Boiler #2, when combusting coal, the owner or operator submitted a one-time compliance demonstration on August 31, 2000, showing that the potential Lead (Pb) emissions do not exceed the standards in Specific Condition S1.f. Therefore, there are no Lead (Pb) compliance monitoring, recordkeeping, or reporting requirements for these boilers.

g. **Sulfuric Acid (H₂SO₄)**

For Boiler #1 and Boiler #2, when combusting coal, the District has determined that the SO₂ compliance monitoring requirements in Specific Condition S2.b. are sufficient to assure H₂SO₄ compliance per the PSD Final Determination dated October 24, 1990.

h. **VOC**

For Boiler #1 and Boiler #2, when combusting coal, the owner or operator submitted a one-time compliance demonstration dated March 10, 2004 showing that the potential VOC emissions do not exceed the applicable standards in Specific Condition S1.h. Therefore, there are no VOC compliance monitoring, recordkeeping, or reporting requirements for these boilers.

S4. **Reporting** (Regulation 2.03, section 5.1)

The owner or operator shall clearly identify all deviations from permit requirements in the Boiler CEMS Semiannual Reports, Title V Semiannual Reports, and the NO_x RACT Semiannual Reports. Duplicative reporting is not required. If no deviations occur in a reporting period, the owner or operator shall report a negative declaration for each of the following. (See Comment 9)

a. **Boiler CEMS Semiannual Reports**

For Boiler #1 and Boiler #2, the owner or operator shall report semiannually the following information, with the report required to be postmarked by the 30th day following the end of the reporting period. (40 CFR 60.49b(w))

i. **NO_x**

For Boiler #1 and Boiler #2, when combusting coal, the owner or operator of any affected facility subject to the continuous monitoring requirements for nitrogen oxides under 40 CFR 60.48(b) shall submit reports containing the information recorded under 40 CFR 60.49b(g). (40 CFR 60.49b(i))

ii. **SO₂**

For Boiler #1 and Boiler #2, when combusting coal, (40 CFR 60.49b(j) and 40 CFR 60.49b(k))

- 1) Calendar dates covered in the reporting period. (40 CFR 60.49b(k)(1))
- 2) Each 30-day average sulfur dioxide emission rate (ng/J or lb/MM Btu heat input) measured during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken. (40 CFR 60.49b(k)(2))
- 3) Each 30-day average percent reduction in sulfur dioxide emissions calculated during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken. (40 CFR 60.49b(k)(3))

- 4) Identification of the steam generating unit operating days that coal or oil was combusted and for which sulfur dioxide or diluent (oxygen or carbon dioxide) data have not been obtained by an approved method for at least 75 percent of the operating hours in the steam generating unit operating day; justification for not obtaining sufficient data; and description of corrective action taken. (40 CFR 60.49b(k)(4))
- 5) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit. (40 CFR 60.49b(k)(5))
- 6) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted. (40 CFR 60.49b(k)(6))
- 7) Identification of times when hourly averages have been obtained based on manual sampling methods. (40 CFR 60.49b(k)(7))
- 8) Identification of the times when the pollutant concentration exceeded full span of the CEMS. (40 CFR 60.49b(k)(8))
- 9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3. (40 CFR 60.49b(k)(9))
- 10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1. (40 CFR 60.49b(k)(10))
- 11) The annual capacity factor of each fired as provided under 40 CFR 60.49(d). (40 CFR 60.49b(k)(11))
- 12) For each affected facility subject to the sulfur dioxide standards under 40 CFR 60.42b for which the minimum amount of data required under 40 CFR 60.47b(f) were not obtained during the reporting period, the following information is reported in addition to that required under 60.49b(k). (40 CFR 60.49b(m)) Note, the regulatory citation of 40 CFR 60.47b(f) is incorrect; it should be 40 CFR 60.47b(c).
 - (a) The number of hourly averages available for outlet emission rates and inlet emission rates. (40 CFR 60.49b(m)(1))

- (b) The standard deviation of hourly averages for outlet emission rates and inlet emission rates, as determined in Method 19, section 7. (40 CFR 60.49b(m)(2))
- (c) The lower confidence limit for the mean outlet emission rate and the upper confidence limit for the mean inlet emission rate, as calculated in Method 19, section 7. (40 CFR 60.49b(m)(3))
- (d) The ratio of the lower confidence limit for the mean outlet emission rate and the allowable emission rate, as determined in Method 19, section 7. (40 CFR 60.49b(m)(4))

iii. CEMS Analyzers Quality Assurance Procedures

- 1) As applicable, results of the Cylinder Gas Audits (CGA) conducted in three of the four calendar quarters, but in no more than three quarters in succession. The Cylinder Gas Audits (CGA) shall be conducted in accordance with 40 CFR 60 Appendix B, Performance Specifications 2 or 3. (40 CFR 60, Appendix F)
- 2) As applicable, results of the Relative Accuracy Test Audit (RATA) conducted at least once every four calendar quarters. The Relative Accuracy Test Audit (RATA) shall be conducted in accordance with 40 CFR 60 Appendix B, Performance Specifications 2 or 3. (40 CFR 60, Appendix F)

b. **Title V Semiannual Reports**

The owner or operator shall include the following information in the Title V Semiannual Report. The reporting period shall be January 1st through June 30th and July 1st through December 31st of each calendar year. All reports shall be postmarked by the 60th day following the end of each reporting period.

i. **NO_x**

For Boiler #1 and Boiler #2,

- 1) Emission Unit ID number, and/or Emission point ID number
- 2) The beginning and ending date of the reporting period
- 3) Identification of all periods of exceedance of the pound per hour NO_x limit in Specific Condition S1.a.i.
- 4) Description of any corrective action taken for each exceedance

ii. **SO₂**

1) For Boiler #1 and Boiler #2,

- (a) Emission Unit ID number, and/or Emission point ID number
- (b) The beginning and ending date of the reporting period
- (c) Identification of all periods of deviation from the requirements of the Operation and Maintenance Plan for the SO₂ Removal System and the Baghouse
- (d) Description of any corrective action taken for each exceedance

2) For Boiler #1 and Boiler #2,

- (a) Emission Unit ID number, and/or Emission point ID number
- (b) The beginning and ending date of the reporting period
- (c) Identification of all periods of exceedance of the sulfur content limit of the coal burned
- (d) Description of any corrective action taken for each exceedance

iii. **PM**

For Boiler #1 and Boiler #2, there are no Title V Semiannual reporting requirements for PM. (See Comment 12)

iv. **Opacity**

For Boiler #1 and Boiler #2, when combusting coal, there are no Opacity compliance reporting requirements.

v. **CO**

There are no Title V Semiannual Reporting requirements for CO.

vi. **Lead (Pb)**

There are no Title V Semiannual Reporting requirements for Lead (Pb).

vii. **Sulfuric Acid (H₂SO₄)**

For Boiler #1 and Boiler #2, when combusting coal, the District has determined that the SO₂ compliance monitoring requirements in Specific Condition S2.b. are sufficient to assure H₂SO₄ compliance per the PSD Final Determination dated October 24, 1990.

viii. **VOC**

For Boiler #1 and Boiler #2, when combusting coal, the owner or operator submitted a one-time compliance demonstration dated March 10, 2004 showing that the potential VOC emissions do not exceed the applicable standards in Specific Condition S1.h. Therefore, there are no VOC compliance monitoring, recordkeeping, or reporting requirements for these boilers.

c. **NO_x RACT Plan Semiannual Reports**

For Boiler #1 and Boiler #2, the owner or operator shall submit a written report of all deviations from the requirements of the NO_x RACT Plan that occurred during the preceding semiannual period. Semiannual periods shall be January 1st through June 30th and July 1st through December 31st. If no deviation occurred during the semiannual period, the owner or operator shall report a negative declaration. The report shall be submitted within 60 days following the end of the semiannual period. The report shall contain the following information.

- i. Boiler number,
- ii. The beginning and ending date of the reporting period,
- iii. Identification of all periods during which a deviation occurred,
- iv. A description, including the magnitude, of the deviation,
- v. If known the cause of the deviation,
- vi. A description of all corrective actions taken to abate the deviation.

S5. **Testing** (Regulation 2.03, section 5.1)

The owner or operator shall construct all equipment in such a manner that the following testing requirements can be performed.

a. **PM**

- i. The owner or operator shall within 60 days of issuance of this permit perform an EPA Reference Method 5 performance test within +/- 10% of maximum production of the process equipment on the inlet and outlet of the control device.

- ii. The owner or operator shall within 60 days of issuance of this permit perform a capture efficiency test using EPA guidelines.
- iii. The owner or operator shall submit a written compliance test plan that includes the EPA test methods that will be used for compliance testing, the process operating parameters that will be monitored during the compliance test, and the control device performance indicators (e.g. temperature) that will be monitored during the compliance test. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the compliance test.
- iv. The owner or operator shall provide the District at least 10 days prior notice of any compliance test to afford the District the opportunity to have an observer present.
- v. The owner or operator shall furnish the District with a written report of the results of the compliance test within 60 days following the actual date of the compliance test.

Comments

NO_x

1. Demonstrating compliance with the lower limit of 0.50 lb/MMBtu on a 30 day rolling average in Specific Condition S1.a.iii. for Boiler #1 and Boiler #2, also demonstrates compliance with Specific Condition S1.a.ii.
2. For Boilers #1 and #2, there are no NO_x emission standards, monitoring, recordkeeping, or reporting under Regulation 7.06, because these boilers are less than 250 MMBtu/hr.

CO

3. For Boiler #1 and Boiler #2, there are no CO standards, monitoring, recordkeeping, or reporting under either 40 CFR Part 60 Subpart Db, or Regulation 7.06.

Lead (Pb)

4. For Boiler #1 and Boiler #2, there are no Lead (Pb) standards, monitoring, recordkeeping, or reporting under either 40 CFR Part 60 Subpart Db, or Regulation 7.06.

H₂SO₄

5. For Boiler #1 and Boiler #2, there are no H₂SO₄ standards, monitoring, recordkeeping, or reporting under either 40 CFR Part 60 Subpart Db, or Regulation 7.06.

VOC

6. For Boiler #1 and Boiler #2, there are no VOC standards, monitoring, recordkeeping, or reporting under either 40 CFR Part 60 Subpart Db, or Regulation 7.06.

Miscellaneous

7. The New Source Performance Standards Prevention of Significant Deterioration Final Determination is dated October 24, 1990. The final determination indicates that the proposed construction of the energy facilities for American Synthetic Rubber Company will comply with all applicable air pollution regulations provided the boilers are installed and operated in accordance with the permit.
8. The definition of "Day" for U4 is the time period from midnight to midnight.
9. The following is a summary of the report periods and due dates for the reports required by this emission unit:

<u>Report Description</u>	<u>Report Period</u>	<u>Report due dates</u>
1 st Semiannual for CEMS	January 1 through June 30	July 30
2 nd Semiannual for CEMS	July 1 through December 31	January 30
1 st Semiannual for Title V	January 1 through June 30	August 29
2 nd Semiannual for Title V	July 1 through December 31	March 1 [*]
1 st Semiannual for NO _x RACT	January 1 through June 30	August 29
2 nd Semiannual for NO _x RACT	July 1 through December 31	March 1 [*]

* The date for leap years is February 29.

10. This equipment was originally permitted under Permit # 110-90-C. It was reissued as PSD Construction Permit 312-05-C on December 31, 2005 to change the following:
- Remove the ton per year emission limits for all pollutants, and the coal heating value limit, sulfur content limit, ash content limit, and consumption limits, since lb/hr limits are more restrictive.
 - Add applicable Regulation 7.02 (40 CFR 60 Subpart Db).
 - Remove Regulation 5.12, it does not apply per 401 KAR 63:022, section 1(2)(e), which exempts indirect fired fossil fuel heat exchangers.
 - Correct the PM₁₀ limit to be a PM limit.
 - Add standards that were referenced.
 - Add practically enforceable monitoring, recordkeeping, and reporting requirements.
11. This permit was revised as PSD Construction Permit 312-05-C (R1) to change the following:

- Replaced the lbSO_2/hr limit on a 3 hour average with a $0.20 \text{ lbSO}_2/\text{MMBtu}$ limit on a 30 day rolling average based on the BACT analysis dated ____
 - Added a limit on the maximum sulfur content in the coal
 - Added Initial Operator Training and Certification Program requirements
 - Added Operation and Maintenance requirements for the SO_2 removal system and baghouse
12. The source performed an EPA Reference Method 5 performance test for PM emissions from Boiler #1 and Boiler #2 on December 3, 1992. The performance test demonstrated the PM emissions are 2.13 lb/hr and 0.007 lb/MMBtu from each boiler, which are in compliance with the PSD limits.