

**Commonwealth of Kentucky
Energy and Environment Cabinet
Department for Environmental Protection
Division for Air Quality
300 Sower Boulevard, 2nd Floor
Frankfort, Kentucky 40601
(502) 564-3999**

Final

**AIR QUALITY PERMIT
Issued under 401 KAR 52:020**

Permittee Name: East Kentucky Power Cooperative, Inc.
Mailing Address: 4775 Lexington Road,
Winchester, KY 40392-0707

Source Name: Hugh L. Spurlock Generating Station
Mailing Address: 1301 West 2nd Street
Maysville, KY 41056

Source Location: Maysville, KY

Permit: V-15-063 R1
Agency Interest: 3004
Activity: APE20180002 & APE20190006
Review Type: Title V, Construction/Operating
Source ID: 21-161-00009

Regional Office: Ashland Regional Office
1550 Wolohan Drive, Suite 1
Ashland, KY 41102
(606) 929-5285

County: Mason

Application
Complete Date: September 11, 2011
Issuance Date: April 14, 2016
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Expiration Date: April 14, 2021

Rick S. Shewekah

For **Melissa Duff, Director**
Division for Air Quality

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Rev. #	Permit Type	Log #, or Activity #	Complete Date	Issuance Date	Summary of Action
V-06-007	Title V Renewal, NSR/PSD	APE20040001	January 20, 2006	July 31, 2006	Title V permit renewal and significant revision for construction of Unit#4 boiler-turbine-generator
V-06-007 R1	Minor Revision	APE20060003	August 22, 2006	January 10, 2007	Addition of WFSD and WESP on both Units 01& 02
V-06-007 R2	Significant Revision	APE20070003	December 21 2007	April 18, 2008	U.S. EPA Administrator's Order (IV-2006-4)
V-06-007 R3	Significant Revision	APE20090004	November 3, 2009	April 27, 2010	U.S. EPA Administrator's Order (IV-2008-4)
V-15-063	Renewal	APE20100006	September 11, 2011	April 14, 2016	Renewal, Add Consent Decree, Add CSAPR, Add BART
V-15-063 R1	Minor Revision	APE20180002 APE20190006	9/13/2018 6/28/2019	7/12/2020	Add new Fly Ash and Bottom Ash handling and Silos; increase haul road traffic; add cooling tower (EU35) for EU01 to replace EU27 (existing cooling tower for EU01); add WWT

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality (Division) hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes (KRS) Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Energy and Environment Cabinet (Cabinet) or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 01 - Indirect Heat Exchanger (Unit 1)

Description:

Pulverized coal, dry-bottom, wall-fired boiler, rated 3500 MMBtu/hr with low NO_x burners

Number two fuel oil used for startup and stabilization

Control equipment: Electrostatic Precipitator (ESP); Selective Catalytic Reduction (SCR)

Construction commenced before: 1971

New Control equipment: Wet Electrostatic Precipitator (WESP), Wet Flue Gas Desulfurization (WFGD), constructed after May 12, 2006, Dry Sorbent Injection (DSI) commenced in 2014

Applicable Regulations:

401 KAR 51:160	NO _x requirements for large utility and industrial boilers, incorporating by reference 40 CFR 96
401 KAR 51:190	Banking and trading NO _x allowances
401 KAR 51:210	CAIR NO _x annual trading program
401 KAR 51:220	CAIR NO _x ozone season trading program
401 KAR 51:230	CAIR SO ₂ trading program
401 KAR 52:060	Acid rain permits, incorporating by reference the Federal Acid Rain provisions 40 CFR Parts 72 to 78
40 CFR 63, Subpart UUUUU	National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units (EGU), effective April 16, 2015
40 CFR Part 64	Compliance Assurance Monitoring (CAM), applicable to particulate matter (PM) monitoring
401 KAR 61:015	Existing indirect heat exchangers
40 CFR 51, Subpart P	Kentucky Regional Haze SIP (June 2008; amended May 2010 as approved March 30, 2012 Federal Register and June 7, 2012 Federal Register

Applicable Consent Decree:

Consent Decree entered in *United States v. East Kentucky Power Cooperative, Inc., Civil Action No. 04-34-KSF (E.D. Ky.)*, September 24, 2007 (Consent Decree)

1. Operating Limitations:

Effective no later than April 16, 2015, the permittee shall be in compliance with the applicable operating limits in 40 CFR 63, Subpart UUUUU [40 CFR 63.10000(a)].

2. Emission Limitations:

a. Particulate emissions shall not exceed:

- (1) No later than April 30, 2017, 0.030 lb/MMBtu for filterable particulate matter, based on a three-hour average [Pursuant to 40 CFR 51, Subpart P, Regional Haze SIP BART provisions]. Compliance shall be demonstrated by testing as specified in **3. Testing Requirements** and **7. Specific Control Equipment Operating Conditions**. See Section I - Compliance Schedule for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(2) 0.14 lb/MMBtu [401 KAR 61:015, Section 4(1)]. Compliance shall be demonstrated by testing as specified in **3. Testing Requirements**. See Section I - Compliance Schedule for additional requirements; and

b. Opacity shall not exceed 20 percent, except [401 KAR 61:015, Section 4(2)]:

(1) a maximum of 40 percent opacity shall be permissible for not more than one six-minute period in any 60 consecutive minutes; and

(2) for emissions 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.

Compliance shall be demonstrated by U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 at least once every 7 boiler operating days [401 KAR 50:055, Section 2(3)]. As an alternative, the permittee may elect to adopt the testing schedule and modified testing procedures in 40 CFR 60.45(b)(7).

c. Sulfur dioxide emissions shall not exceed 3.0 lb/MMBtu based on a twenty-four-hour average [401 KAR 61:015, Section 3(1)(e)]. Compliance shall be demonstrated by SO₂ CEMS.

d. The permittee shall continuously operate the WFGD to achieve and maintain a 30-Day Rolling Average Removal Efficiency for SO₂ of at least 95 percent or a 30-Day Rolling Average SO₂ Emission Rate of no greater than 0.100 lb/MMBtu [Consent Decree entered September 24, 2007, paragraph 64]. In determining Emission Rates for SO₂, the permittee shall use CEMS, in accordance with the procedures specified in 40 CFR Part 75 [Consent Decree entered September 24, 2007 paragraph 79]. For Units that are required to be equipped with SO₂ control equipment and that are subject to percent removal efficiency requirements of the Consent Decree, the outlet SO₂ Emission Rate and the inlet SO₂ Emission Rate shall be determined based on the data generated in accordance with 40 CFR Part 75.15 (using SO₂ CEMS data from both the inlet and outlet of the control device) [Consent Decree entered September 24, 2007, paragraph 80].

e. The permittee shall operate, year-round, the SCR technology on Emission Unit 1 so as to achieve and maintain a NO_x 30-Day Rolling Average Emission Rate not greater than 0.100 lb/MMBtu [Consent Decree entered September 24, 2007, paragraph 52]. In determining Emission Rates for NO_x, the permittee shall use CEMS in accordance with procedures specified in 40 CFR Part 75 [Consent Decree entered September 24, 2007, paragraph 63].

f. Effective no later than April 16, 2015, the permittee shall be in compliance with the applicable emission limits in 40 CFR 63, Subpart UUUUU [40 CFR 63.10000(a)].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**3. Testing Requirements:**

- a. The permittee shall conduct testing using Method 5 in Appendix A of 40 CFR Part 60 [401 KAR 61:015, Section 7(1)(c)] for particulate matter within one year following the issuance of this permit (V-15-063). This testing shall be conducted in accordance with 401 KAR 50:045, Performance Tests and pursuant to 40 CFR 64.4(c)(1), the testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit. If no additional stack tests are performed, the permittee shall conduct one performance test for particulate emissions within the third year of the term of this permit (V-15-063) to demonstrate compliance with the allowable standard. Stack tests for particulate matter conducted pursuant to the Consent Decree entered September 24, 2007 may satisfy these testing requirements provided that the tests are conducted in accordance with 401 KAR 50:045, 401 KAR 61:015, Section 7(1)(c) and 40 CFR 64.4(c)(1).
- b. Beginning in calendar year 2008, and continuing annually thereafter, the permittee shall conduct a PM performance test on Emission Unit 1. The permittee may perform biennial rather than annual testing provided that:
 - (1) two of the most recently completed test results from tests conducted in accordance with 40 CFR Part 60, Appendix A, Method 5 demonstrate that the PM emissions are equal to or less than 0.015 lb/MMBtu, or
 - (2) the Emissions Unit is equipped with a PM CEMS pursuant to Paragraphs 88 through 95 of the Consent Decree entered September 24, 2007.

The permittee shall perform annual rather than biennial testing the year immediately following any test result demonstrating that the particulate matter emissions are greater than 0.015 lb/MMBtu unless the Emissions Unit is equipped with a PM CEMS in accordance with Paragraphs 88 through 95 [Consent Decree entered September 24, 2007, paragraph 86].

- c. Initial performance testing is required to demonstrate compliance with applicable emission limits in 40 CFR 63, Subpart UUUUU [40 CFR 63.10000(c)(1), 40 CFR 63.10011(a)]. Performance testing may include traditional stack tests or may involve continuous monitoring systems or both. The permittee shall demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than October 13, 2015 [40 CFR 63.9984(f)]. For the purposes of the initial compliance demonstration, the permittee may use test data and results from a performance test conducted prior to April 16, 2015, provided that the conditions in 40 CFR 63.10005(b) are fully met.

4. Specific Monitoring Requirements:

- a. The permittee shall install, calibrate, operate and maintain monitoring equipment necessary for continuously monitoring and recording filterable particulate matter, sulfur dioxide, nitrogen oxides, and oxygen or carbon dioxide [401 KAR 61:005, Section 3, 401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (1) PM CEMS shall comply with 40 CFR Part 60, Appendix B, Performance Specification 11 and 40 CFR Part 60, Appendix F, Procedure 2.
 - (2) NO_x and SO₂ CEMS shall comply with 40 CFR Part 60, Appendix B, Performance Specification 2 and with 40 CFR Part 75.
 - (3) O₂ or CO₂ CEMS for oxygen or carbon dioxide shall comply with 40 CFR Part 60, Appendix B, Performance Specification 3 and with 40 CFR Part 75.
- b. PM Compliance Assurance Monitoring. Excluding exempted time periods, if a 3-hour average PM emissions exceeds 0.14 lb/MMBtu, the permittee shall inspect the PM CEMS and control equipment and make any necessary repairs. If 5 percent or greater of the 3-hour average PM CEMS data exceeds the PM standard, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate matter standard while operating at representative conditions. The permittee shall submit a compliance test protocol as specified in 401 KAR 50:045, Performance Tests before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to 401 KAR 50:045 [40 CFR Part 64, CAM plan filed December 22, 2010].
- c. The permittee shall use the procedures in 401 KAR 61:005, Section 3(16) for converting monitoring data to units of the standard.
- d. The sulfur content of solid fuels as burned shall be determined in accordance with methods specified by the Division. The rate of each fuel burned shall be measured daily and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily [401 KAR 61:015, Section 6].
- e. The permittee shall monitor the time between ignition and the time steady state operation is achieved [401 KAR 52:020, Section 10].
- f. Effective no later than April 16, 2015, the permittee shall demonstrate continuous compliance with each applicable emissions limit, operating limit, and work practice standard in 40 CFR 63, Subpart UUUUU, according to the monitoring specified in Tables 6 and 7 to 40 CFR 63, Subpart UUUUU and paragraphs (b) through (g) of 40 CFR 63.10021 [40 CFR 63.10021(a)]. The permittee shall comply with the continuous monitoring system installation requirements in 40 CFR 63.10010(a) as applicable. The permittee shall monitor and collect data according to 40 CFR 63.10020(a) and the site-specific monitoring plan required by 40 CFR 63.10000(d) [40 CFR 63.10020(a)].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**5. Specific Recordkeeping Requirements:**

- a. The permittee shall maintain a file for a minimum of five years from the date of collection of the data or submission to the Cabinet of [401 KAR 61:005, Section 3, 401 KAR 52:020, Section 10]:
 - (1) All information reported in the quarterly summaries;
 - (2) All other data collected by the CEMS or as necessary to convert monitoring data to the units of the applicable standard;
 - (3) The results of all compliance tests;
 - (4) The records of the fuel analysis;
 - (5) The rate of fuel burned on a daily basis;
 - (6) The heating value and ash content on a weekly basis;
 - (7) The average electrical output and the minimum and maximum hourly generation rates on a daily basis; and
 - (8) The time of ignition, the time steady state operation is achieved, and the elapsed time between the two.
- b. The permittee shall comply with the recordkeeping requirements specified in 401 KAR 52:020, Section 10. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions) [40 CFR 64.9(b)(1)]. Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements [40 CFR 64.9(b)(2)].
- c. Effective no later than April 16, 2015, the permittee shall keep records as required by 40 CFR 63.10032 and 40 CFR 63.10033.

6. Specific Reporting Requirements:

- a. For each continuous monitoring system, the permittee shall submit, in writing to the cabinet, for every calendar quarter, a written report of excess emissions including the nature and cause of the excess emissions, if known, as follows [401 KAR 61:005, Section 3]:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (1) The averaging period used for data reporting shall correspond to the averaging period specified in the emission test method used to determine compliance with an emission standard for the applicable pollutant and source category, and quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter;
 - (2) For gaseous measurements, the summary shall consist of hourly averages expressed in the units of the applicable standard;
 - (3) Except for zero and span checks, the date and time of each period during which the CEMS was not operating, including proof of CEMS performance during system repairs and the nature of the repairs or adjustments; and
 - (4) If excess emissions have not occurred and the CEMS have not been inoperative, repaired, or adjusted, this information shall be included in the report.
 - (5) If startup is the cause of the excess emissions, the following should be included in the excess emissions report [401 KAR 50:055, Section 1]:
 - (i) The type of startup (cold, warm, or hot);
 - (ii) The reason why the startup was determined to be cold, warm, or hot (or the conditions that dictated a cold, warm, or hot startup);
 - (iii) The elapsed time of (or duration of) the startup;
 - (iv) The manufacturer's recommended duration for that type of startup or alternatively, typical, historical durations for that type of startup based upon good engineering practices; and
 - (v) Whether or not the duration of the startup exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of why the startup exceeded recommended or typical durations.
- b. The permittee shall submit monitoring reports to the Division in accordance with 401 KAR 52:020, Section 10 [40 CFR 64.9(a)(1)]. A report for monitoring under 40 CFR Part 64 shall include, at a minimum, the information required under 401 KAR 52:020, Section 10 and the following information, as applicable [40 CFR 64.9(a)(2)]:
- (1) Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - (2) Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. The permittee shall meet the notification and reporting requirements in 40 CFR 63.10030 and 40 CFR 63.10031 according to the schedule in 40 CFR 63.10030, 40 CFR 63.10031, and in Subpart A of 40 CFR Part 63. Some of the notifications shall be submitted before the permittee is required to comply with the emission limits and work practice standards 40 CFR 63 Subpart UUUUU [40 CFR 63.9984(c)]. The permittee shall submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply by the dates specified [40 CFR 63.10030(a)].

7. Specific Control Equipment Operating Conditions:

- a. Electrostatic Precipitator, Selective Catalytic Reduction, Wet Electrostatic Precipitator, and Wet Flue Gas Desulfurization systems shall be operated to maintain compliance with permitted emission limitations, consistence with manufacturer's specifications and/or good operating practices [401 KAR 50:055, Section 2].
- b. The permittee shall continuously operate the SCR at all times that Emissions Unit 1 is in operation, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for the SCR, for minimizing emissions to the extent practicable [Consent Decree entered September 24, 2007, paragraph 55].
- c. The permittee shall operate low NO_x burners at all times that Emission Unit 1 is in operation [Consent Decree entered September 24, 2007, paragraph 56].
- d. The permittee shall continuously operate the FGD at all times that Emissions Unit 1 is in operation, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for the FGD, minimizing emissions to the extent practicable [Consent Decree entered September 24, 2007, paragraph 67].
- e. The permittee shall continuously operate the electrostatic precipitator (ESP) on Emission Unit 1 to maximize PM emission reductions, consistent with manufacturers' specifications, the operational design and maintenance limitations of Emission Unit 1 and good engineering practices. Specifically, the permittee shall, at a minimum [Consent Decree entered September 24, 2007, paragraph 81 and 85]:
 - (1) energize each section of the ESP, regardless of whether that action is needed to comply with opacity limits;
 - (2) maintain the energy or power levels delivered to the ESP to achieve the greatest possible removal of PM;
 - (3) make best efforts to expeditiously repair and return to service transformer-rectifier sets when they fail;
 - (4) inspect for, and schedule for repair, any openings in ESP casings and ductwork to minimize air leakage; and

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (5) optimize the plate-cleaning and discharge-electrode-cleaning systems for the ESP by varying the cycle time, cycle frequency, rapper-vibrator intensity, and number of strikes per cleaning event, of these systems to minimize PM emissions.

- f. Records regarding the maintenance of the control equipment shall be maintained [401 KAR 50:055, Section 2].

- g. The permittee shall implement the technology specified in the Kentucky BART SIP by utilizing the ESP/WFGD control train for emissions from Unit 1.

- h. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 02 - Indirect Heat Exchanger (Unit 2)

Description:

Pulverized coal-fired boiler, dry bottom, tangentially-fired rated 5600 MMBtu/hr equipped with low NO_x burners

Number two fuel oil used for startup and stabilization

Control equipment: Electrostatic Precipitator, and Selective Catalytic Reduction system

Construction commenced: 1976

New control equipment: Wet Electrostatic Precipitator (commenced May 12, 2006), Wet Flue Gas Desulfurization (commenced May 12, 2006), Dry Sorbent Injection (commenced 2014)

Applicable Regulations:

401 KAR 51:160	NO _x requirements for large utility and industrial boilers, incorporating by reference 40 CFR 96
401 KAR 51:190	Banking and trading NO _x allowances
401 KAR 51:210	CAIR NO _x annual trading program
401 KAR 51:220	CAIR NO _x ozone season trading program
401 KAR 51:230	CAIR SO ₂ trading program
401 KAR 52:060	Acid rain permits, incorporating by reference the Federal Acid Rain provisions 40 CFR Parts 72 to 78
40 CFR 60, Subpart D	Standards of performance for fossil fuel-fired steam generators
40 CFR 63, Subpart UUUUU	National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units (EGU), effective April 16, 2015
40 CFR Part 64	Compliance Assurance Monitoring (CAM), applicable to particulate matter (PM) monitoring
40 CFR 52.21	Prevention of significant deterioration of air quality
40 CFR 51, Subpart P	Kentucky Regional Haze SIP (June 2008; amended May 2010 as approved March 30, 2012 Federal Register and June 7, 2012 Federal Register

Applicable Consent Decree:

Consent Decree entered in *United States v. East Kentucky Power Cooperative, Inc., Civil Action No. 04-34-KSF (E.D. Ky.)*, September 24, 2007 (Consent Decree)

1. Operating Limitations:

- a. The permittee shall operate Emission Unit 2 at a maximum heat input not greater than 5600 MMBtu/hr as determined by a weekly average. Compliance shall be demonstrated by calculating hourly heat input using 40 CFR Part 75 CEMS data and recording the weekly average.
- b. Effective no later than April 16, 2015, the permittee shall be in compliance with applicable operating limits in 40 CFR 63, Subpart UUUUU [40 CFR 63.10000(a)].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**2. Emission Limitations:**

- a. The permittee shall not cause to be discharged into the atmosphere any gases that [40 CFR 60.42(a)]:
- (1) Contain PM in excess of 0.10 lb/MMBtu derived from fossil fuel.
 - (2) Exhibit greater than 20 percent opacity except for one six-minute period per hour of not more than 27 percent opacity.

Compliance shall be demonstrated by testing as specified in **3. Testing Requirements**. See Section I - Compliance Schedule for additional requirements.

- b. The permittee shall not cause to be discharged into the atmosphere from any affected facility any gases that contain SO₂ in excess of 1.2 lb/MMBtu derived from solid fossil fuel or solid fossil fuel and wood residue [40 CFR 60.43(a)]. See 40 CFR 60.43 for emission limits if other fuels are used.

Compliance shall be demonstrated by SO₂ CEMS as specified in **4. Specific Monitoring Requirements**. Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels [40 CFR 60.43(c)]. Excess emissions are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of SO₂ as measured by a CEMS exceed the applicable standard [40 CFR 60.45(g)].

- c. The permittee shall not cause to be discharged into the atmosphere from any affected facility any gases that contain NO_x, expressed as NO₂, in excess of 300 ng/J heat input (0.70 lb/MMBtu) derived from solid fossil fuel or solid fossil fuel and wood residue [40 CFR 60.44(a)]. See 40 CFR 60.44 for emission limits if other fuels are used.

Compliance shall be demonstrated by NO_x CEMS as specified in **4. Specific Monitoring Requirements**. Excess emissions are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of NO_x as measured by a CEMS exceed the applicable standard [40 CFR 60.45(g)].

- d. The permittee shall continuously operate the WFGD to achieve and maintain a 30-Day Rolling Average Removal Efficiency for SO₂ of at least 95 percent or a 30-Day Rolling Average SO₂ Emission Rate of no greater than 0.100 lb/MMBtu [Consent Decree entered September 24, 2007, paragraph 64]. In determining Emission Rates for SO₂, the permittee shall use CEMS, in accordance with the procedures specified in 40 CFR Part 75 [Consent Decree entered September 24, 2007 paragraph 79]. For Units that are required to be equipped with SO₂ control equipment and that are subject to percent removal efficiency requirements of the Consent Decree, the outlet SO₂ Emission Rate and the inlet SO₂ Emission Rate shall be determined based on the data generated in accordance with 40 CFR Part 75.15 (1999) (using

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

SO₂ CEMS data from both the inlet and outlet of the control device) [Consent Decree entered September 24, 2007, paragraph 80].

- e. The permittee shall operate year-round the SCR technology on Emission Unit 2 so as to achieve and maintain a NO_x 30-Day Rolling Average Emission Rate not greater than 0.100 lb/MMBtu [Consent Decree entered September 24, 2007, paragraph 52]. In determining Emission Rates for NO_x, the permittee shall use CEMS in accordance with the procedures specified in 40 CFR Part 75 [Consent Decree entered September 24, 2007, paragraph 63].
- f. Effective no later than April 16, 2015, the permittee shall be in compliance with applicable emission limits in 40 CFR 63, Subpart UUUUU [40 CFR 63.10000(a)].
- g. No later than April 30, 2017, filterable particulate matter shall not exceed 0.030 lb/MMBtu, based on a three-hour average [Pursuant to 40 CFR 51, Subpart P, Regional Haze SIP BART provisions].

Compliance shall be demonstrated by testing as specified in **3. Testing Requirements** and **7. Specific Control Equipment Operating Conditions**. See Section I - Compliance Schedule for additional requirements.

3. Testing Requirements:

- a. The permittee shall conduct testing for particulates within one year following the issuance of this permit (V-15-063) [401 KAR 52:020, Section 10]. This testing shall be conducted in accordance with 401 KAR 50:045, Performance Tests, and pursuant to 40 CFR 64.4(c)(1), the testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit. If no additional stack tests are performed, the permittee shall conduct one performance test for particulate emissions within the third year of the term of this permit (V-15-063) to demonstrate compliance with the allowable standard. Stack tests for particulate matter conducted pursuant to the Consent Decree entered September 24, 2007 may satisfy these testing requirements provided that the tests are conducted in accordance with 401 KAR 50:045 and 40 CFR 64.4(c)(1).
- b. Beginning in calendar year 2008, and continuing annually thereafter, the permittee shall conduct a PM performance test. The permittee may perform biennial rather than annual testing provided that:
 - (1) two of the most recently completed test results from tests conducted in accordance with 40 CFR Part 60, Appendix A-3, Method 5B demonstrate that the PM emissions are equal to or less than 0.015 lb/MMBtu, or
 - (2) the Emissions Unit is equipped with a PM CEMS in accordance with Paragraphs 88 through 95 of the Consent Decree entered September 24, 2007.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

The permittee shall perform annual rather than biennial testing the year immediately following any test result demonstrating that the particulate matter emissions are greater than 0.015 lb/MMBtu unless the Emissions Unit is equipped with a PM CEMS in accordance with Paragraphs 88 through 95 [Consent Decree entered September 24, 2007, paragraph 86].

- c. The permittee shall determine compliance with the PM, SO₂, and NO_x standards in 40 CFR 60.42, 60.43, and 60.44 using the procedures specified in 40 CFR 60.46(b).
- d. The permittee shall conduct a performance test using U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 and the procedures in 40 CFR 60.11 to demonstrate compliance with the applicable limit in 40 CFR 60.42 within 90 days of the issuance of this permit (V-15-063). The observation period for U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation [40 CFR 60.45(b)(7)]. Except as provided in 40 CFR 60.45(b)(7)(ii) or (b)(7)(iii), the permittee shall conduct subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 using the procedures and schedules in 40 CFR 60.45(b)(7) [40 CFR 60.45(b)(7)(i)].
- e. When combinations of fossil fuels or fossil fuel and wood residue are fired, the permittee shall determine the percentage (w, x, y, or z) of the total heat input derived from each type of fuel as specified in 40 CFR 60.46(c).
- f. Initial performance testing is required to demonstrate compliance with applicable emission limits in 40 CFR Subpart UUUUU [40 CFR 63.10000(c)(1), 40 CFR 63.10011(a)]. Performance testing may include traditional stack tests or may involve continuous monitoring systems or both. The permittee shall demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than October 13, 2015 [40 CFR 63.9984(f)]. For the purposes of the initial compliance demonstration, the permittee may use test data and results from a performance test conducted prior to April 16, 2015, provided that the conditions in 40 CFR 63.10005(b) are fully met.

4. Specific Monitoring Requirements:

- a. The permittee shall install, calibrate, maintain, and operate CEMS for measuring PM emissions, SO₂ emissions, NO_x emissions, and either oxygen (O₂) or carbon dioxide (CO₂) [40 CFR 60.45(a) and (b)(5)]. Conversion procedures in 40 CFR 60.45(e) shall be used to convert the continuous monitoring data into units of the applicable standards [40 CFR 60.45(e)].
- b. PM Compliance Assurance Monitoring. Excluding exempted time periods, if a 3-hour average PM emissions exceeds the PM standard, the permittee shall inspect the PM CEMS and/or control equipment and make any necessary repairs. If 5 percent or greater of the 3-hour average PM CEMS data exceeds the PM standard, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate matter standard while operating at representative conditions. The permittee shall submit a compliance test

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

protocol as specified in 401 KAR 50:045, Performance Tests before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to 401 KAR 50:045 [40 CFR Part 64, CAM plan filed December 22, 2010].

- c. The permittee shall monitor the time between ignition and the time steady state operation is achieved [401 KAR 52:020, Section 10].
- d. Effective no later than April 16, 2015, the permittee shall demonstrate continuous compliance with each applicable emissions limit, operating limit, and work practice standard in 40 CFR 63, Subpart UUUUU, according to the monitoring specified in Tables 6 and 7 to 40 CFR 63, Subpart UUUUU and paragraphs (b) through (g) of 40 CFR 63.10021 [40 CFR 63.10021(a)]. The permittee shall comply with the continuous monitoring system installation requirements in 40 CFR 63.10010(a) as applicable. The permittee shall monitor and collect data according to 40 CFR 63.10020(a) and the site-specific monitoring plan required by 40 CFR 63.10000(d) [40 CFR 63.10020(a)].

5. Specific Recordkeeping Requirements:

- a. The permittee shall keep the results of all compliance tests [401 KAR 52:020, Section 10].
- b. The permittee shall comply with the recordkeeping requirements specified in 401 KAR 52:020, Section 10. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions) [40 CFR 64.9(b)(1)]. Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements [40 CFR 64.9(b)(2)].
- c. The permittee shall record the time of ignition, the time steady state operation is achieved, and shall calculate and record the elapsed time between the two [401 KAR 52:020, Section 10].
- d. Effective no later than April 16, 2015, the permittee shall keep records as required by 40 CFR 63.10032 and 40 CFR 63.10033.

6. Specific Reporting Requirements:

- a. Excess emission and monitoring system performance reports shall be submitted to the Administrator semiannually for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and monitoring systems performance (MSP) report shall include the

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

information required in 40 CFR 60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows [40 CFR 60.45(g)]:

- (1) *Opacity*. Excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one six-minute average per hour of up to 27 percent opacity need not be reported.
 - (2) *Sulfur dioxide*. Excess emissions are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of SO₂ as measured by a CEMS exceed the applicable standard in 40 CFR 60.43.
 - (3) *Nitrogen oxides*. Excess emissions when using a CEMS for measuring NO_x are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards in 40 CFR 60.44.
- b. The permittee shall submit monitoring reports to the Division in accordance with 401 KAR 52:020, Section 10 [40 CFR 64.9(a)(1)]. A report for monitoring under 40 CFR Part 64 shall include, at a minimum, the information required under 401 KAR 52:020, Section 10 and the following information, as applicable [40 CFR 64.9(a)(2)]:
- (1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - (2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable).
- c. For each performance test conducted using U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60, the permittee shall keep the records including the following information [40 CFR 60.45(h)(1)]:
- (i) Dates and time intervals of all opacity observation periods;
 - (ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and
 - (iii) Copies of all visible emission observer opacity field data sheets.
- d. In the event of startup, the permittee shall report [401 KAR 52:020, Section 10]:
- (1) The type of startup (cold, warm, or hot);
 - (2) The reason why the startup was determined to be cold, warm, or hot (or the conditions that dictated a cold, warm, or hot startup);

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- (3) The elapsed time of (or duration of) the startup;
 - (4) The manufacturer's recommended duration for that type of startup or alternatively, typical, historical durations for that type of startup based upon good engineering practices; and
 - (5) Whether or not the duration of the startup exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of why the startup exceeded recommended or typical durations.
- e. The permittee shall meet the notification and reporting requirements in 40 CFR 63.10030 and 40 CFR 63.10031 according to the schedule in 40 CFR 63.10030, 40 CFR 63.10031, and in Subpart A of 40 CFR Part 63. Some of the notifications shall be submitted before the permittee is required to comply with the emission limits and work practice standards 40 CFR 63 Subpart UUUUU [40 CFR 63.9984(c)]. The permittee shall submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply by the dates specified [40 CFR 63.10030(a)].

7. Specific Control Equipment Operating Conditions:

- a. Electrostatic Precipitator, Selective Catalytic Reduction system, Wet Electrostatic Precipitator, and Wet Flue Gas Desulfurization system shall be operated to maintain compliance with permitted emission limitations, consistence with manufacturer's specifications and good operating practices [401 KAR 50:055, Section 2].
- b. The permittee shall continuously operate the SCR at all times that Emission Unit 2 is in operation, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for the SCR for minimizing emissions to the extent practicable [Consent Decree entered September 24, 2007, paragraph 55].
- c. The permittee shall continuously operate the WFGD at all times that Emission Unit 2 is in operation, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for the WFGD for minimizing emissions to the extent practicable [Consent Decree entered September 24, 2007, paragraph 67].
- d. The permittee shall operate low NO_x burners and over-fire air at all times that Emission Unit 2 is in operation [Consent Decree entered September 24, 2007, paragraph 56].
- e. The permittee shall continuously operate the Electrostatic Precipitator on Emission Unit 2 to maximize PM emission reductions, consistent with manufacturers' specifications, the operational design and maintenance limitations of Emission Unit 2 and good engineering practices. Specifically, the permittee shall, at a minimum [Consent Decree entered September 24, 2007, paragraph 81 and 85]:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (1) energize each section of the ESP for Emission Unit 2, regardless of whether that action is needed to comply with opacity limits;
 - (2) maintain the energy or power levels delivered to the ESP to achieve the greatest possible removal of PM;
 - (3) make best efforts to expeditiously repair and return to service transformer-rectifier sets when they fail;
 - (4) inspect for, and schedule for repair, any openings in ESP casings and ductwork to minimize air leakage, and
 - (5) optimize the plate-cleaning and discharge-electrode-cleaning systems for the ESP at by varying the cycle time, cycle frequency, rapper-vibrator intensity, and number of strikes per cleaning event, of these systems to minimize PM emissions.
- f. Records regarding the maintenance of the control equipment shall be maintained.
- g. The permittee shall implement the technology specified in the Kentucky BART SIP by utilizing the ESP/WFGD control train for emissions from Unit 2.
- h. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 08 - Circulating Fluidized Bed (Unit 3)

Description:

Coal fired Circulating Fluidized Bed (CFB) boiler rating 2,500 MMBtu/hour,
Emission control units: baghouse, dry lime scrubber, and SNCR. Dry sorbent injection (DSI) added in 2014.

No. 2 Fuel Oil used for startup and stabilization

Tire-Derived Fuel (TDF) <=10 percent coal fuel by weight ratio

Construction date: June 2002

Applicable Regulations:

401 KAR 51:017	Prevention of significant deterioration of air quality
401 KAR 51:160	NO _x requirements for large utility and industrial boilers, incorporating by reference 40 CFR 96
401 KAR 51:190	Banking and trading NO _x allowances
401 KAR 51:210	CAIR NO _x annual trading program
401 KAR 51:220	CAIR NO _x ozone season trading program
401 KAR 51:230	CAIR SO ₂ trading program
401 KAR 52:060	Acid rain permits, incorporating by reference the Federal Acid Rain provisions 40 CFR Parts 72 to 78
40 CFR 60, Subpart Da	Standards of performance for electric utility steam generating units
40 CFR 63, Subpart UUUUU	National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired electric Utility Steam Generating Units (EGU), effective April 16, 2015
40 CFR Part 64	Compliance Assurance Monitoring (CAM), applicable to PM, and H ₂ SO ₄ .
40 CFR 63, Subpart B	Requirements for Control Technology Determinations with Major Sources in Accordance with Clean Air Act Sections, Sections 112(g) and 112(j) (not applicable when 40 CFR 63, Subpart UUUUU becomes applicable)

1. Operating Limitations:

- a. The permittee shall install control devices required to meet Best Available Control Technology ("BACT") [401 KAR 51:017].
- b. Tire-Derived Fuel (TDF) shall not be burned in excess of 10 percent of coal fuel by weight ratio.
- c. Effective no later than April 16, 2015, the permittee shall be in compliance with applicable operating limits in 40 CFR 63, Subpart UUUUU [40 CFR 63.10000(a)].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**2. Emission Limitations:**

a. Particulate matter emissions shall not exceed:

- (1) 0.015 lb/MMBtu heat input based on a three-hour average [401 KAR 51:017].
- (2) 0.03 lb/MMBtu heat input [40 CFR 60.42Da(a)] based on a daily average [40 CFR 60.48Da(f)].

Compliance shall be demonstrated by testing as specified in **3. Testing Requirements.**

b. The permittee shall not cause to be discharged into the atmosphere any gases which exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity [40 CFR 60.42Da(b)]. Compliance shall be demonstrated by U.S. EPA Reference Method 9 of Appendix A of 40 CFR Part 60 and the procedures in 40 CFR 60.11 [40 CFR 60.50Da(b)(3)].

c. Sulfur dioxide emissions shall not exceed:

- (1) 0.20 lb/MMBtu based on a twenty-four (24) hour block average [401 KAR 51:017] and;
- (2) 1.20 lb/MMBtu heat input and 10 percent of the potential combustion concentration (90 percent reduction) [40 CFR 60.43Da(a)]; or
- (3) 30 percent of the potential combustion concentration (70 percent reduction), when emissions are less than 0.60 lb/MMBtu heat input [40 CFR 60.43Da(a)]; or
- (4) 180 ng/J (1.4 lb/MWh) gross energy output [40 CFR 60.43Da(a)]; or
- (5) 65 ng/J (0.15 lb/MMBtu) heat input [40 CFR 60.43Da(a)].

Compliance shall be demonstrated by SO₂ CEMS. Compliance with the emission limitation and percent reduction requirements under 40 CFR 60.43Da(a) are both determined on a 30-day rolling average basis [40 CFR 60.43Da(g)]. Compliance with applicable SO₂ percentage reduction requirements is determined based on the average inlet and outlet SO₂ emission rates for the 30 successive boiler operating days [40 CFR 60.48Da(e)].

d. Nitrogen oxides emissions shall not exceed:

- (1) 0.07 lb/MMBtu while above 70 percent load (210 MWg), based on a 30 day rolling average, excluding startup, shutdown, and malfunction [401 KAR 51:017].
- (2) 0.09 lb/MMBtu based on a 30-day rolling average, excluding startup, shutdown, and malfunction [401 KAR 51:017].

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- (3) 225 lb/hour based on a 30-day rolling average, excluding startup, shutdown, and malfunction [401 KAR 51:017].
- (4) 1.6 lb/MWh gross energy output, as determined on a 30-boiler operating day rolling average basis [40 CFR 60.44 Da(d)(1)].

Compliance shall be demonstrated by NO_x CEMS. For limits established pursuant to 40 CFR 60.44Da, the permittee shall calculate NO_x emissions in accordance with 40 CFR 60.48Da(i). For the purposes of demonstrating compliance with (1) and (2) above, startup is defined as beginning with the ignition of fuel oil and ending when the boiler has reached a minimal sustainable load for one hour of 200 MWg firing coal. Shutdown is defined as when the load decreases from 200 MWg either to generator desynchronization or to fuel feed stopped. After startup is complete, it is possible to operate the unit below 200 MWg down to approximately 150 MWg without being in shutdown mode. Emissions during such periods shall be included in demonstrating compliance with the 0.09 lb/MMBtu and 225 lb/hour 30-day average limit [401 KAR 52:020, Section 10].

- e. Emissions shall not exceed [401 KAR 51:017]:

Pollutant	Emissions Limit (lb/MMBtu)	Averaging Period	Compliance Demonstration
Carbon monoxide	0.15	30-day rolling	See 3. <u>Testing Requirements</u>
VOC	0.0036	30-day rolling	
Mercury	0.00000265	quarterly	
Fluoride	0.0000466	30-day rolling	
Lead	0.0000063	quarterly	
Beryllium	0.0000146	quarterly	
Sulfuric Acid Mist	0.005	30-day rolling	

- f. Emissions shall not exceed [40 CFR 63.43(d), case-by-case MACT determination] until the compliance date under 40 CFR 63, Subpart UUUUU:

HAP	Emissions Limitation (lb/MMBtu)	Averaging Period	Compliance Demonstration
VOC	0.0036	30-day rolling	See 3. <u>Testing Requirements.</u>
Mercury	0.00000265	quarterly	
Hydrogen Chloride	0.0035	30-day rolling	
Hydrogen Fluoride	0.00047	30-day rolling	
Beryllium	0.0000146	quarterly	
Lead	0.0000063	quarterly	
Metal HAPS (as PM)	0.015	3-hour	

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- g. The applicable PM emissions limit and opacity standard under 40 CFR 60.42Da, SO₂ emissions limit under 40 CFR 60.43Da, and NO_x emissions limit under 40 CFR 60.44Da apply at all times except during periods of startup, shutdown, or malfunction [40 CFR 60.48Da(a)]. Compliance with applicable 30-boiler operating day rolling average SO₂ and NO_x emissions limits is determined by calculating the arithmetic average of all hourly emission rates for SO₂ and NO_x for the 30 successive boiler operating days, except for data obtained during startup, shutdown, or malfunction [40 CFR 60.48Da(d)].
- h. Compliance with the applicable SO₂ emissions limit and percentage reduction requirements under 40 CFR 60.43Da and NO_x emissions limit under 40 CFR 60.44Da, is based on the average emission rate for 30 successive boiler operating days. A separate performance test is completed at the end of each boiler operating day after the initial performance test, and a new 30-boiler operating day rolling average emission rate for both SO₂, NO_x or NO_x plus CO as applicable, and a new percent reduction for SO₂ are calculated to demonstrate compliance with the standards [40 CFR 60.48Da(b)].
- i. The numeric PM, SO₂, CO, VOC, mercury, fluoride, lead, beryllium and sulfuric acid mist emissions limits under 401 KAR 51:017 apply at all times except during startup, shutdown, and malfunction.
 - (1) Startup is defined as beginning with the ignition of fuel oil and ending when the boiler has reached a minimal sustainable load for one hour of 200 MWg firing coal. Shutdown is defined as when the load decreases from 200 MWg either to generator desynchronization or to fuel feed stopped. After startup is complete, it is possible to operate the unit below 200 MWg down to approximately 150 MWg without being in shutdown mode.
 - (2) Pursuant to 401 KAR 51:017, the permittee shall utilize good work and maintenance practices and manufacturer's recommendations to minimize emissions during, and the frequency of, startup and shutdown events. Within 60 days of issuance of the renewal permit, the permittee shall provide a current copy of its startup and shutdown plan to the Division. During startup and shutdown periods, the permittee shall comply with the work practice standards in the startup and shutdown plan [401 KAR 51:017].
- j. Effective no later than April 16, 2015, the permittee shall be in compliance with applicable emission limits in 40 CFR 63, Subpart UUUUU [40 CFR 63.10000(a)].

3. Testing Requirements:

- a. The permittee shall submit a schedule within six months from the issuance date of this permit (V-15-063) to conduct a performance test within one year following the issuance of this permit (V-15-063) to demonstrate compliance with emission standards and to re-establish the correlation between opacity and particulate matter emissions (opacity indicator level); CO and VOC emissions; H₂SO₄, HCL, and HF with limestone injection rates and SO₂ CEMS readings; and fuel sample concentration correlations with HAP emissions when required for monitoring

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

and compliance demonstrations [40 CFR Part 64, 401 KAR 50:045, 401 KAR 52:020, Section 10].

- (1) Testing shall be conducted in accordance with 401 KAR 50:045, Performance Tests, and pursuant to 40 CFR 64.4(c)(1), the testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit.
- (2) If no additional stack tests are performed, the permittee shall conduct a performance test by the start of the fourth year of this permit (V-15-063) to demonstrate compliance with emission limits and to re-establish the correlations between opacity and particulate matter emissions, CO and VOC emissions, and H₂SO₄ and SO₂ emissions.
- (3) In conducting the performance tests required in 40 CFR 60.8, the permittee shall use as reference methods and procedures the methods in Appendix A of 40 CFR Part 60 or the methods and procedures as specified in 40 CFR 60.50Da, except as provided in 40 CFR 60.8(b). 40 CFR 60.8(f) does not apply to 40 CFR 60.50Da for SO₂ and NO_x. Acceptable alternative methods are given in 40 CFR 60.50Da(e) [40 CFR 60.50Da(a)].
- (4) The permittee shall demonstrate compliance using the following test methods in the appendices to 40 CFR Part 60 [40 CFR 63.43(g)(2)(ii)] until compliance the compliance date under 40 CFR 63, Subpart UUUUU:

HAP	Test Method
VOC (VOC HAPs)	Method 25A
Mercury	Method 29
Hydrogen Chloride	Method 26A
Hydrogen Fluoride	Method 26A
Beryllium	Method 29
Lead	Method 29
Metal HAPs (as PM)	Method 5

During the initial compliance test, the permittee shall take a sample of the fuel “as fired” and analyze it to determine the HAP content in the fuel. This information shall be used to establish a correlation between the sample’s HAP content and HAP emissions for monitoring purposes.

For Hydrogen Chloride and Hydrogen Fluoride, the permittee shall demonstrate compliance with these emission limits each year to validate the correlation between grab samples' HAP content and HAP emissions. After three years of demonstrating compliance and the correlation between the samples and emissions, the permittee may petition the Division to use the grab samples as a surrogate for compliance testing [401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

For Mercury, Beryllium, and Lead, the permittee shall take a sample of fuel "as fired" and analyze it to determine the HAP content in the fuel. Previously conducted correlation tests between HAP content and HAP emissions shall be used to determine HAP emissions from HAP content in the fuel.

- (5) The permittee shall perform initial testing with the appropriate U.S. EPA test method for sulfuric acid mist (SAM) to establish correlation with sulfur dioxide emission readings and the limestone injection rate to SAM emissions. Limestone injection rate and SO₂ CEM readings are the indicators of continuing SAM compliance [401 KAR 52:020, Section 10] .
- b. Initial performance testing is required to demonstrate compliance with applicable emission limits in 40 CFR Subpart UUUUU [40 CFR 63.10000(c)(1), 40 CFR 63.10011(a)]. Performance testing may include traditional stack tests or may involve continuous monitoring systems or both. The permittee shall demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than October 13, 2015 [40 CFR 63.9984(f)]. For the purposes of the initial compliance demonstration, the permittee may use test data and results from a performance test conducted prior to April 16, 2015, provided that the conditions in 40 CFR 63.10005(b) are fully met.
- c. See Section D.

4. Specific Monitoring Requirements:

- a. The permittee shall install, calibrate, maintain, and operate a COMS, and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere [40 CFR 60.49Da(a)(1)].
- b. PM Compliance Assurance Monitoring. Excluding exempted time periods, if a 3-hour average opacity exceeds the opacity indicator level, the permittee shall inspect the COMS and/or control equipment and make any necessary repairs. If 5 percent or greater of the 3-hour average COMS data exceeds the opacity indicator level, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate matter standard while operating at representative conditions. The permittee shall submit a compliance test protocol as specified in 401 KAR 50:045, Performance Tests before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to 401 KAR 50:045 [40 CFR Part 64, CAM plan filed December 22, 2010].
- c. The permittee shall install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring SO₂ emissions as specified in 40 CFR 60.49Da(b). If the permittee has installed and certified a SO₂ CEMS according to the requirements of 40 CFR 75.20(c)(1) and Appendix A to 40 CFR Part 75, and is continuing to meet the ongoing quality assurance requirements of 40 CFR 75.21 and Appendix B to 40 CFR Part 75, that CEMS may be used to

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

meet the requirements of 40 CFR 60.49Da, provided that the requirements of 40 CFR 60.49Da(b)(4) are met [40 CFR 60.49Da(b) and (d), 401 KAR 51:017].

- d. The permittee shall install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring NO_x emissions discharged to the atmosphere [40 CFR 60.49Da(c)(1)]. If the permittee has installed a NO_x emission rate CEMS to meet the requirements of 40 CFR Part 75 and is continuing to meet the ongoing requirements of 40 CFR Part 75, that CEMS may be used to meet the requirements of 40 CFR 60.49Da, except that permittee shall also meet the requirements of 40 CFR 60.51Da. Data reported to meet the requirements of 40 CFR 60.51Da shall not include data substituted using the missing data procedures in 40 CFR 75, Subpart D, nor shall the data have been bias adjusted according to the procedures of 40 CFR Part 75 [40 CFR 60.49Da(c)(2), 401 KAR 51:017].
- e. The permittee shall install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring the O₂ or CO₂ content of the flue gases at each location where SO₂ or NO_x emissions are monitored [40 CFR 60.49Da(d), 401 KAR 51:017].
- f. The permittee shall install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring carbon monoxide emissions discharged to the atmosphere. The carbon monoxide CEMS shall be operated and maintained in accordance with Performance Specification 4 of Appendix B to 40 CFR Part 60 [40 CFR 63.43, Case-by-Case MACT Determination, 401 KAR 51:017].
- g. Case-by-Case MACT
The permittee shall conduct the following monitoring to assure compliance with the applicable requirements [40 CFR 63.43(g), Case-by-Case MACT determination] until the compliance date under 40 CFR 63, Subpart UUUUU:

HAP	Emissions Limitation lb/MMBtu	Monitoring Method
VOC (VOC HAPs)	0.0036	The continuous compliance monitoring method used to assess compliance with the carbon monoxide emission limitation shall be used as an indicator of good combustion practices. Compliance with the carbon monoxide emission limitation assures compliance with the VOC (VOC HAP) emission limit.
Mercury	0.00000265	The permittee shall take a sample of fuel “as fired” to the boiler on a quarterly basis. The samples taken on a quarterly basis shall be analyzed to determine mercury content. Emissions shall be estimated based on the emission correlations established during the most recent stack test.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

HAP	Emissions Limitation lb/MMBtu	Monitoring Method
		The continuous compliance monitoring method used to assess compliance with the carbon monoxide emission limitation shall be used as an indicator of good combustion practices. The continuous compliance monitoring method used to assess compliance with the sulfur dioxide emission limitations shall also be used as an indicator of the proper dry lime scrubber operational procedures. Compliance with the carbon monoxide and sulfur dioxide emission limitations assures compliance with the mercury emission limit.
Hydrogen Chloride	0.0035	The permittee shall take a sample of fuel "as fired" to the boiler on a quarterly basis. The samples taken on a quarterly basis shall be analyzed to determine chlorine content. Emissions shall be estimated based on the emission correlations with limestone injection rates and SO ₂ CEMS readings established during the most recent stack test.
Hydrogen Fluoride	0.00047	The permittee shall take a sample of fuel "as fired" to the boiler on a quarterly basis. The samples taken on a quarterly basis shall be analyzed to determine fluoride content. Emissions shall be estimated based on the emission correlations with limestone injection rates and SO ₂ CEMS readings established during the most recent stack test.
Lead	0.0000063	Same as beryllium
Beryllium	0.0000146	The permittee shall take a sample of fuel "as fired" to the coal-fired boiler on a quarterly basis. The samples taken on a quarterly basis shall be analyzed to determine beryllium. Emissions shall be estimated based on the emission correlations established during the most recent stack test. [The continuous compliance monitoring method used to assess compliance with the PM emission limitations shall be used to assure compliance with the beryllium emission limit as an indicator of proper operation and removal of beryllium from the exhaust stream.]
Metal HAPs	0.015	The continuous compliance monitoring method used to assess compliance with the PM emission limitations shall be used to assure compliance with the metal HAPs emission limit as an indicator of proper operation and removal of metal HAPs from the exhaust stream. Compliance with the PM emission limitation assures compliance with the metal

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

HAP	Emissions Limitation lb/MMBtu	Monitoring Method
		HAPs emissions limit.

- h. The permittee shall conduct the following monitoring until the compliance date under 40 CFR 63, Subpart UUUUU. The permittee shall take a grab sample of the fuel “as fired” to the CFB on a quarterly basis. The samples taken on a quarterly basis shall be analyzed to determine the applicable hazardous air pollutant content. This data, along with the baseline data established during the initial compliance test, shall be used to demonstrate compliance with the emission limits for these pollutants. Depending on the results of the quarterly tests, additional steps may be required to ensure that applicable hazardous air pollutant content emission limits are not exceeded [401 KAR 52:020, Section 10].
- i. For sulfuric acid mist, the permittee shall utilize the SO₂ CEMS and monitor the rate of limestone injection in conjunction with the initial source test to establish excursion levels [40 CFR Part 64, 401 KAR 52:020, Section 10].
- j. The CEMS under 40 CFR 60.49Da(b), (c), and (d) shall be operated and data recorded during all periods of operation including periods of startup, shutdown, and malfunction, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments [40 CFR 60.49Da(e)].
- k. The permittee shall obtain emission data for at least 18 hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement cannot be met with CEMS, the permittee shall supplement emission data with other monitoring systems approved by the Administrator or the reference methods and procedures as described in 40 CFR 60.49Da(h) [40 CFR 60.49Da(f)(1)].
- l. The procedures specified in 40 CFR 60.49Da(k)(1) through (3) and 40 CFR 60.49Da(l) shall be used to determine gross energy output for sources demonstrating compliance with an output-based standard [40 CFR 60.49Da(k) and (l)].
- m. The permittee shall prepare and submit to the Administrator for approval a unit-specific monitoring plan for each monitoring system, at least 45 days before commencing certification testing of the monitoring systems. The permittee shall comply with the requirements in its plan. The plan shall address the requirements in 40 CFR 60.49(s)(1) through (6) [40 CFR 60.49Da(s)].
- n. If the permittee elects to demonstrate compliance with the output-based emissions limit under 40 CFR 60.42Da, the permittee shall either install, certify, operate, and maintain a CEMS for measuring PM emissions according to the requirements 40 CFR 60.49Da(v) or install, calibrate, operate, and maintain a PM CPMS according to the requirements for new facilities specified in 40 CFR 63, Subpart UUUUU. If the permittee elects to demonstrate compliance

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

with the input-based emissions limit in 40 CFR 60.42Da, the permittee may install, certify, operate, and maintain a CEMS for measuring PM emissions according to the requirements of 40 CFR 60.49Da(v) [40 CFR 60.49Da(t)].

- o. The permittee shall install, certify, operate, and maintain CEMS as specified in paragraphs 40 CFR 60.49Da(w)(1) through (5) [40 CFR 60.49Da(w)].
- p. The permittee shall monitor and record the TDF tonnage and 10 percent tire to coal ratio for fuel usage on a monthly basis [401 KAR 52:020, Section 10].
- q. The permittee shall monitor the time between ignition and the time minimum sustainable load of 200 MWg for one hour at Emissions Unit 08 is achieved [401 KAR 51:017; 401 KAR 52:020, Section 10].
- r. After the initial compliance test, continuing compliance with the emission standards shall be determined by continuous emission monitors for Opacity, NO_x, and SO₂. Ongoing compliance with the emission standard for CO shall be determined by monitoring for CO emissions using a continuous emission monitor. Ongoing compliance with the emission standards for beryllium and the applicable hazardous air pollutants (HAPs) shall be based on quarterly fuel analyses and calculations using established baseline factors developed during the initial compliance test [401 KAR 52:020, Section 10]. For emission limits established by Case-by-Case MACT (Section B.2.f), this monitoring requirement will be superseded when 40 CFR Part 63, Subpart UUUUU is applicable (see Section B.4.s). Emissions limits established by BACT (Section B.2.e) shall still be monitored in accordance with this paragraph (Section B.4.r).
- s. Effective no later than April 16, 2015, the permittee shall demonstrate continuous compliance with each applicable emissions limit, operating limit, and work practice standard in 40 CFR 63, Subpart UUUUU, according to the monitoring specified in Tables 6 and 7 to 40 CFR 63, Subpart UUUUU and paragraphs (b) through (g) of 40 CFR 63.10021 [40 CFR 63.10021(a)]. The permittee shall comply with the continuous monitoring system installation requirements in 40 CFR 63.10010(a) as applicable. The permittee shall monitor and collect data according to 40 CFR 63.10020(a) and the site-specific monitoring plan required by 40 CFR 63.10000(d) [40 CFR 63.10020(a)].

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by 401 KAR 59:005 recorded in a permanent form suitable for inspection [401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. The permittee shall comply with the recordkeeping requirements specified in 401 KAR 52:020, Section 10. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions) [40 CFR 64.9(b)(1)]. Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements [40 CFR 64.9(b)(2)].
- c. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the affected facility, any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative [401 KAR 51:017; 401 KAR 52:020, Section 10].
- d. The permittee shall compute and record percentage of the COM data (excluding startup, shutdown, and malfunction data) showing excursions above the opacity trigger level in each calendar quarter. The permittee shall record the opacity measurements, calculations performed, and any corrective actions taken. The record of corrective action taken shall include the date and time during which the measured 3-hour average COM data was greater than baseline opacity level, and the date, time, and description of the corrective action [40 CFR Part 64].
- e. Case-by-Case MACT. Until the compliance date under 40 CFR 63, Subpart UUUUU, the permittee shall [40 CFR 63.43]:
 - (1) Keep quarterly records of the sample's HAP analyses according to the general recordkeeping requirements specified in Section F.1. and F.2. of this permit.
 - (2) Record continuously the SO₂ emission rate at the outlet of the dry lime scrubber using the CEM system.
 - (3) Record continuously the opacity of visible emissions at the outlet of the baghouse using the COM system.
 - (4) Record continuously the carbon monoxide emission rate using the CEM system.
- f. On a daily basis, the permittee shall record the TDF usage for fuel and the coal fuel/weight ratio, when TDF is used as fuel.
- g. The permittee shall record the time of ignition and the time minimum sustainable load of 200 MWg for one hour is achieved, and shall calculate and record the elapsed time between the two [401 KAR 51:017; 401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- h. The permittee shall record limestone injection rates and the SO₂ CEMS data [401 KAR 52:020, Section 10].
- i. For each performance test conducted using U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60, the permittee shall keep the following records [40 CFR 60.52Da(b)(1)]:
 - (1) Dates and time intervals of all opacity observation periods;
 - (2) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and
 - (3) Copies of all visible emission observer opacity field data sheets.
- j. Effective no later than April 16, 2015, the permittee shall keep records as required by 40 CFR 63.10032 and 40 CFR 63.10033.

6. Specific Reporting Requirements:

- a. For SO₂, NO_x, and PM, the performance test data from the initial and subsequent performance tests and from the performance evaluation of the continuous monitors shall be reported to the Administrator [40 CFR 60.51Da(a)].
- b. For SO₂ and NO_x the following information shall be reported to the Administrator for each 24-hour period [40 CFR 60.51Da(b)].
 - (1) Calendar date.
 - (2) The average SO₂ and NO_x emission rates (ng/J, lb/MMBtu, or lb/MWh) for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the emission standards; and, description of corrective actions taken.
 - (3) If complying with the percent reduction requirement, percent reduction of the potential combustion concentration of SO₂ for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.
 - (4) Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 75 percent of the hours of operation of the facility; justification for not obtaining sufficient data; and description of corrective actions taken.
 - (5) Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, or malfunction.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (6) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
 - (7) Identification of times when hourly averages have been obtained based on manual sampling methods.
 - (8) Identification of the times when the pollutant concentration exceeded full span of the CEMS.
 - (9) Description of any modifications to CEMS which could affect the ability of the CEMS to comply with Performance Specifications 2 or 3.
- c. If the minimum quantity of emission data as required by 40 CFR 60.49Da is not obtained for any 30 successive boiler operating days, the following information obtained under the requirements of 40 CFR 60.48Da(h) shall be reported to the Administrator for that 30-day period [40 CFR 60.51Da(c)]:
- (1) The number of hourly averages available for outlet emission rates (n_o) and inlet emission rates (n_i) as applicable.
 - (2) The standard deviation of hourly averages for outlet emission rates (s_o) and inlet emission rates (s_i) as applicable.
 - (3) The lower confidence limit for the mean outlet emission rate (E_o^*) and the upper confidence limit for the mean inlet emission rate (E_i^*) as applicable.
 - (4) The applicable potential combustion concentration.
 - (5) The ratio of the upper confidence limit for the mean outlet emission rate (E_o^*) and the allowable emission rate (E_{std}) as applicable.
- d. For any periods for which opacity, SO₂ or NO_x emissions data are not available, the permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability [40 CFR 60.51Da(f)].
- e. The permittee shall submit a signed statement indicating whether [40 CFR 60.51Da(h)]:
- (1) The required CEMS calibration, span, and drift checks or other periodic audits have or have not been performed as specified.
 - (2) The data used to show compliance was or was not obtained in accordance with approved methods and procedures of this part and is representative of plant performance.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (3) The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.
- (4) Compliance with the standards has or has not been achieved during the reporting period.
- f. For the purposes of the reports required under 40 CFR 60.7, periods of excess emissions are defined as all 6-minute periods during which the average opacity exceeds the applicable opacity standards under 40 CFR 60.42Da(b). Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the Administrator each calendar quarter [40 CFR 60.51Da(i)].
- g. The permittee shall submit the written reports required under 40 CFR 60, Subpart Da and 40 CFR 60, Subpart A to the Administrator semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period [40 CFR 60.51Da(j)].
- h. The permittee may submit electronic quarterly reports for SO₂, NO_x, and opacity in lieu of submitting the written reports required under paragraphs 40 CFR 60.51Da(b) and (i). The format of each quarterly electronic report shall be coordinated with the Division. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the permittee, indicating whether compliance with the applicable emission standards and minimum data requirements of 40 CFR 60, Subpart Da was achieved during the reporting period [40 CFR 60.51Da(k)].
- i. A report for monitoring under 40 CFR Part 64 shall include, at a minimum, the information required under 40 CFR 70.6(a)(3)(iii) and the following information, as applicable [40 CFR 64.9(a)(2)]:
 - (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - (ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - (iii) A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.
- j. For startup and shutdown events, the permittee shall report [401 KAR 51:017; 401 KAR 52:020, Section 10]:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (1) The type of startup (cold, warm, or hot);
- (2) The reason why the startup was determined to be cold, warm, or hot (or the conditions that dictated a cold, warm, or hot startup);
- (3) The elapsed time of (or duration of) the startup;
- (4) The manufacturer's recommended duration for that type of startup or alternatively, typical, historical durations for that type of startup based upon good engineering practices; and
- (5) Whether or not the duration of the startup exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of deviations from the startup and shutdown plan, including why the startup exceeded recommended or typical durations.

k. The permittee shall utilize the limestone injection rate, the SO₂ CEMS data, and the correlation established during initial source testing to calculate and report sulfuric acid mist (SAM) emissions quarterly to the Division's Regional Office [401 KAR 52:020, Section 10].

l. The permittee shall meet the notification and reporting requirements in 40 CFR 63.10030 and 40 CFR 63.10031 according to the schedule in 40 CFR 63.10030, 40 CFR 63.10031, and in Subpart A of 40 CFR Part 63. Some of the notifications shall be submitted before the permittee is required to comply with the emission limits and work practice standards 40 CFR 63, Subpart UUUUU [40 CFR 63.9984(c)]. The permittee shall submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply by the dates specified [40 CFR 63.10030(a)].

7. Specific Control Equipment Operating Conditions:

- a. The CFB, baghouse, SNCR, and dry lime scrubber shall be operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b. Records regarding the maintenance of the control equipment shall be maintained.
- c. See Section E for additional requirements.
- d. Case-by-Case MACT

Until the compliance date under 40 CFR 63, Subpart UUUUU, the permittee shall install and operate the following control technology to meet the Case-by-Case MACT emission limitations while the emission unit is in operation [40 CFR 63.43(d)]:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

HAP	Control Technology
Mercury	Selective non-catalytic reduction (SNCR), dry lime scrubber, baghouse
Beryllium, Lead	Baghouse
Acid Gases (Hydrogen Chloride and Hydrogen Fluoride)	Dry Scrubber and Baghouse
Metals (Metal HAPs)	Baghouse

e. Control Equipment Operating Conditions for the dry lime scrubber

The permittee shall monitor SO₂ emissions continuously using the CEM system. Compliance with the SO₂ emissions limitation assures proper operation of the dry lime scrubber [40 CFR 63.43, Case-by-Case MACT determination].

f. Control Equipment Operating Conditions for the baghouse

The permittee shall maintain the opacity of visual emissions to less than 20 percent on a six-minute average except for one six-minute period per hour of not more than 27 percent opacity as measured by the COM system [40 CFR 63.43, Case-by-Case MACT determination]. Compliance with the opacity limitation assures proper operation of the baghouse.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 17 - Circulating Fluidized Bed (Unit 4)

Description:

Coal fired Circulating Fluidized Bed (CFB) boiler rating 2800 MMBtu/hr (or 300 MWh)
Emissions control units: Baghouse, dry lime scrubber, and SNCR. Dry sorbent injection (DSI) added in 2014.

Tire-Derived Fuel (TDF), <= 10 percent coal fuel by weight ratio
ASTM Grade No.2-DS15 fuel oil, used for startup and stabilization
Construction Commence Date: April 2006

Applicable Regulations:

401 KAR 51:017	Prevention of significant deterioration of air quality
401 KAR 51:160	NO _x requirements for large utility and industrial boilers, incorporating by reference 40 CFR 96
401 KAR 51:190	Banking and trading NO _x allowances
401 KAR 51:210	CAIR NO _x annual trading program
401 KAR 51:220	CAIR NO _x ozone season trading program
401 KAR 51:230	CAIR SO ₂ trading program
401 KAR 52:060	Acid rain permits, incorporating by reference the Federal Acid Rain provisions 40 CFR Parts 72 to 78
40 CFR 60, Subpart Da	Standards of performance for electric utility steam generating units applicable to an emission unit with a capacity of more than 250 MMBtu/hr
40 CFR 63, Subpart UUUUU	National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired electric Utility Steam Generating Units (EGU)
40 CFR Part 64	Compliance Assurance Monitoring (CAM), applicable to sulfuric acid mist

Applicable Agreed Order:

Agreed Order DAQ-33617 entered May 14, 2012

1. Operating Limitations:

- a. The permittee shall install and utilize all control devices selected required to meet BACT [401 KAR 51:017].
 - (1) BACT for PM/PM₁₀ is Pulse Jet Fabric Filter.
 - (2) BACT for CO is good combustion control.
 - (3) BACT for H₂SO₄ mist is a dry scrubber with limestone injection.
 - (4) BACT for fluorides (as HF) is a PJFF and dry scrubber.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (5) BACT for NO_x is a CFB and SNCR.
 - (6) BACT for SO₂ is a CFB with dry scrubber with limestone injection.
 - (7) Only ASTM Grade No.2-DS15 fuel oil, with a sulfur content not to exceed 15 ppm shall be used for startup and stabilization.
 - (8) Tire-Derived Fuel (TDF) shall not be burned in excess of 10 percent of coal fuel by weight ratio.
- b. The work practice standards at Table 3 to 40 CFR Part 63 Subpart UUUUU for coal-fired units shall be met during periods of startup and shutdown, beginning April 16, 2013 except as provided in Section I [40 CFR 63.10000(a), Agreed Order entered May 14, 2012, paragraph 26].

2. Emission Limitations:

- a. Particulate matter emissions shall not exceed:
- (1) 0.009 lb/MMBtu (filterable) based on a 30-day rolling average from the PM CEMS [401 KAR 51:017]. Compliance shall be demonstrated by PM CEMS or performance test [401 KAR 52:020, Section 10].
 - (2) 0.012 lb/MMBtu (filterable and condensable PM/PM₁₀) based on a 3-hour performance test [401 KAR 51:017, 401, KAR 52:020, Section 10].
 - (3) 84 lb/hr (PM₁₀) based on a twenty-four block average to ensure the validity of the NAAQS and increment consumption modeling [401 KAR 51:017]. Compliance shall be demonstrated by PM CEMS or performance test [401 KAR 52:020, Section 10].
 - (4) 0.14 lb/MWh gross energy output [40 CFR 60.42Da(c)(1)] or 0.015 lb/MMBtu heat input [40 CFR 60.42Da(c)(2)]. Compliance with 40 CFR 60.42Da(c)(1) shall be demonstrated in accordance with 40 CFR 60.48Da(n). Compliance with the 40 CFR 60.42Da(c)(2) shall be demonstrated in accordance with 40 CFR 60.48Da(o) or 40 CFR 60.48 Da(p).
- b. Sulfur dioxide (SO₂) emissions shall not exceed:
- (1) 0.15 lb/MMBtu on a 24-hour block average [401 KAR 51:017].
 - (2) 504 lb/hr based on a twenty-four (24) hour block average to ensure the validity of the NAAQS and increment consumption modeling [401 KAR 51:017].
 - (3) 1.4 lb/MWh gross energy output or 5 percent of the potential combustion concentration (95 percent reduction) based on a 30-day rolling average [40 CFR 60.43Da(g) and (i)].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance shall be demonstrated by SO₂ CEMS.

c. Carbon monoxide (CO) emissions shall not exceed:

- (1) 0.10 lb/MMBtu based on a 30-day rolling average [401 KAR 51:017].
- (2) 420 lb/hr on an eight hour block average to ensure the validity of the NAAQS and increment consumption modeling [401 KAR 51:017].

Compliance shall be demonstrated by CO CEMS.

d. Nitrogen oxides (NO_x) emissions shall not exceed:

- (1) 0.07 lb/MMBtu on a 30-day rolling average [401 KAR 51:017].
- (2) 280 lb/hr based on a 30-day block average to ensure the validity of the NAAQS and increment consumption modeling [401 KAR 51:017].
- (3) 1.0 lb/MWh gross energy output as determined on a 30-boiler operating day rolling average basis [40 CFR 60.44Da(e)(1)].

Compliance shall be demonstrated by NO_x CEMS.

e. VOC emissions shall not exceed:

- (1) 0.002 lb/MMBtu based on 3-hour rolling average [401 KAR 51:017].
- (2) 6 lb/hr on a three hour block average to ensure the validity of the NAAQS and increment consumption modeling [401 KAR 51:017].

Compliance shall be demonstrated by CO CEMS after demonstrating by testing that VOC emissions are in compliance when CO emissions are in compliance.

f. Fluoride emissions shall not exceed:

- (1) 0.000047 lb/MMBtu based on a three hour rolling average [401 KAR 51:017].
- (2) 1.32 lb/hr on a three hour block average to ensure the validity of the NAAQS and increment consumption modeling [401 KAR 51:017].

Compliance shall be demonstrated by correlation between fuel samples and emissions determined by testing.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- g. Sulfuric acid mist emissions shall not exceed:
- (1) 0.005 lb/MMBtu based on a three-hour rolling average [401 KAR 51:017].
 - (2) 14 lb/hr on a three hour block average to ensure the validity of the Class I visibility modeling [401 KAR 51:017].

Compliance shall be demonstrated by initial source testing to establish correlation to SO₂ and limestone injection rate to sulfuric acid mist emissions.

- h. HAPs emissions shall not exceed the limits specified below for a coal-fired unit not low rank virgin coal except during startup and shutdown, as demonstrated through quarterly performance testing or based on a 30-boiler operating day rolling average. This requirement shall be met no later than April 16, 2013. [40 CFR 63.9991(a)(1), Agreed Order entered May 14, 2012].

Pollutant	Emission Limit
a. Filterable particulate matter (PM)	3.0E-2 lb/MMBtu or 3.0E-1 lb/MWh.
OR	
Total non-Hg HAP metals	5.0E-5 lb/MMBtu or 5.0E-1 lb/GWh.
OR	
Individual HAP metals:	
Antimony (Sb)	8.0E-1 lb/TBtu or 8.0E-3 lb/GWh.
Arsenic (As)	1.1E0 lb/TBtu or 2.0E-2 lb/GWh.
Beryllium (Be)	2.0E-1 lb/TBtu or 2.0E-3 lb/GWh.
Cadmium (Cd)	3.0E-1 lb/TBtu or 3.0E-3 lb/GWh.
Chromium (Cr)	2.8E0 lb/TBtu or 3.0E-2 lb/GWh.
Cobalt (Co)	8.0E-1 lb/TBtu or 8.0E-3 lb/GWh.
Lead (Pb)	1.2E0 lb/TBtu or 2.0E-2 lb/GWh.
Manganese (Mn)	4.0E0 lb/TBtu or 5.0E-2 lb/GWh.
Nickel (Ni)	3.5E0 lb/TBtu or 4.0E-2 lb/GWh.
Selenium (Se)	5.0E0 lb/TBtu or 6.0E-2 lb/GWh.
AND	
b. Hydrogen chloride (HCl)	2.0E-3 lb/MMBtu or 2.0E-2 lb/MWh.
OR	
Sulfur dioxide (SO ₂)	2.0E-1 lb/MMBtu or 1.5E0 lb/MWh.
AND	
c. Mercury (Hg)	1.2E0 lb/TBtu or 1.3E-2 lb/GWh

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance Demonstration:

- (1) If the permittee uses a CEMS to measure SO₂, PM, HCl, or Hg emissions or if a sorbent trap monitoring system is used to measure Hg emissions, compliance shall be demonstrated by using all quality-assured hourly data recorded by the CEMS or sorbent trap monitoring system to calculate the arithmetic average emissions rate in units of the emission standard on a 30-day boiler operating day rolling average, updated at the end of each new boiler operating day [40 CFR 63.10021(b).]
 - (2) If the permittee uses testing or other methods allowed under 40 CFR Part 63 Subpart UUUUU to measure emissions, compliance shall be demonstrated by adhering to the applicable procedures in 40 CFR 63.10021(d).
 - (3) Compliance shall be demonstrated by performing periodic tune-ups in accordance with 63.10021(e), except as provided in Section I [40 CFR 63.10000(e)].
 - (4) Emissions averaging may be used to demonstrate compliance pursuant to 40 CFR 63.10009 and 63.10022.
- i. The applicable PM emissions limit under 40 CFR 60.42Da, SO₂ emissions limit under 40 CFR 60.43Da, and NO_x emissions limit under 40 CFR 60.44Da apply at all times except during periods of startup, shutdown, or malfunction [40 CFR 60.48Da(a)].
 - j. Compliance with the applicable SO₂ emissions limit and percentage reduction requirements under 40 CFR 60.43Da and NO_x emissions limit under 40 CFR 60.44Da is based on the average emission rate for 30 successive boiler operating days. A separate performance test is completed at the end of each boiler operating day after the initial performance test, and a new 30-boiler operating day rolling average emission rate for both SO₂ and NO_x, and a new percent reduction for SO₂ are calculated to demonstrate compliance with the standards [40 CFR 60.48Da(b)].
 - k. Compliance with applicable 30-boiler operating day rolling average SO₂ and NO_x emissions limits is determined by calculating the arithmetic average of all hourly emission rates for SO₂ and NO_x for the 30 successive boiler operating days, except for data obtained during startup, shutdown, or malfunction [40 CFR 60.48Da(d)].
 - l. Compliance with applicable SO₂ percentage reduction requirements is determined based on the average inlet and outlet SO₂ emission rates for the 30 successive boiler operating days. [40 CFR 60.48Da(e)].
 - m. Compliance with the applicable daily average PM emissions limit is determined by calculating the arithmetic average of all hourly emission rates each boiler operating day, except for data obtained during startup, shutdown, or malfunction periods. Daily averages shall be calculated for boiler operating days that have out-of-control periods totaling no more than 6 hours of unit operation during which the standard applies. For affected facilities that elect to demonstrate

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

compliance using PM CEMS, compliance with the applicable PM emissions limit in 40 CFR 60.42Da is determined on a 30-boiler operating day rolling average basis by calculating the arithmetic average of all hourly PM emission rates for the 30 successive boiler operating days, except for data obtained during periods of startup or shutdown. [40 CFR 60.48Da(f)].

- n. If the permittee has not obtained the minimum quantity of emission data as required under 40 CFR 60.49Da, compliance of the affected facility with the emission requirements under 40 CFR 60.43Da and 60.44Da for the day on which the 30-day period ends may be determined by the Administrator by following the applicable procedures in Section 7 of Method 19 of Appendix A of 40 CFR Part 60 [40 CFR 60.48Da(h)].
- o. The numeric PM, SO₂, CO, NO_x, VOC, fluoride, and sulfuric acid mist emissions limits under 401 KAR 51:017 apply at all times except during startup, shutdown, and malfunction.
 - (1) Startup is defined as beginning with the ignition of fuel oil and ending when the boiler has reached a minimal sustainable load for one hour of 200 MWg firing coal. Shutdown is defined as when the load decreases from 200 MWg either to generator desynchronization or to fuel feed stopped. After startup is complete, it is possible to operate the unit below 200 MWg down to approximately 150 MWg without being in shutdown mode.
 - (2) The permittee shall utilize good work and maintenance practices and manufacturer's recommendations to minimize emissions during, and the frequency of, startup and shutdown events. Within 60 days of issuance of the renewal permit, the permittee shall provide a current copy of its startup and shutdown plan to the Division. During startup and shutdown periods, the permittee shall comply with the work practice standards in the startup and shutdown plan [401 KAR 51:017].

3. Testing Requirements:

- a. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the methods in Appendix A of this part or the methods and procedures as specified 40 CFR 60.50Da, except as provided in 40 CFR 60.8(b). 40 CFR 60.8(f) does not apply to this section for SO₂ and NO_x. Acceptable alternative methods are given in 40 CFR 60.50Da(e) [40 CFR 60.50Da(a)].
 - (1) In conducting the performance tests to determine compliance with the PM emissions limits in 40 CFR 60.42Da, the permittee shall meet the requirements specified in 40 CFR 60.50Da(b).
 - (2) The permittee shall determine compliance with the SO₂ standards in 40 CFR 60.43Da as specified in 40 CFR 60.50Da(c).
 - (3) The permittee shall determine compliance with the NO_x standard in 40 CFR 60.44Da as specified in 40 CFR 60.50Da(d).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (4) The permittee may use the alternatives to the reference methods and procedures specified in 40 CFR 60.50Da(e).
- b. During the initial compliance test, the permittee shall take a sample of the fuel “as fired” and analyze it using ASTM methods to determine the fluoride content in the fuel. This information shall be used to establish a correlation between the sample’s fluoride content and fluoride emissions for monitoring purposes. The permittee shall demonstrate compliance with these emission limits each year to validate the correlation between coal samples and fluoride emissions. After three years of demonstrating compliance and the correlation between the samples and emissions, the permittee may petition the Division to use the grab samples as a surrogate for compliance testing.
 - c. The permittee shall conduct performance testing to demonstrate initial compliance with the applicable HAP emission limits [40 CFR 63.10000(c), 40 CFR 63.10005, and 40 CFR 63.10011]:
 - (1) To demonstrate initial compliance using a CEMS or sorbent trap monitoring system, the initial performance test consists of 30 boiler operating days of data collected by April 16, 2013 [40 CFR 63.10005(a) and 40 CFR 63.10011(c)]. The CEMS or sorbent trap monitoring system shall meet the applicable requirements of 40 CFR 63.10005(d). Data shall be collected for all non-exempt unit operating conditions (see 40 CFR 63.10011(g) and Table 3 to Subpart UUUUU) [40 CFR 63.10007(a)].
 - (2) To demonstrate initial compliance using performance testing, the permittee shall follow the applicable procedures in 40 CFR 63.10005 and 40 CFR 63.10007. Compliance shall be demonstrated within 180 days of April 16, 2013 [40 CFR 63.9984(f) and Section I].
 - (3) As part of the initial compliance demonstration, a performance tune-up according to 40 CFR 63.10021(e) is required, subject to Section I [40 CFR 63.10005(e)].
 - (4) Notifications shall be provided as specified in 40 CFR 63.10030(d) and (e).
 - (5) If a PM CPMS is utilized, the PM CPMS operating limit shall be established during initial or subsequent performance testing pursuant to 40 CFR 63.10023.
 - d. Subsequent performance testing to demonstrate compliance with HAP emission limits shall be conducted pursuant to 40 CFR 63.10006, 40 CFR 63.10007, and 40 CFR 63.10021:
 - (1) If a CEMS or sorbent trap monitoring system is used, continuous compliance with the emission limits is demonstrated by using all quality-assured hourly data recorded by the CEMS or sorbent trap monitoring system to calculate the arithmetic average emission rate in units of the standard on a continuous 30-boiler operating day rolling average basis, updated at the end of each new boiler operating day as required by 40 CFR 63.10021.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (2) If a CEMS or sorbent trap monitoring system is not used or if the unit qualifies as a low emitting electric generating unit, subsequent performance testing shall be performed in accordance with 40 CFR 63.10000, 40 CFR 63.10006, and 40 CFR 63.10007.
- (3) Notification of performance testing shall be provided pursuant to 40 CFR 63.10030(d).

e. See Section D.

4. Specific Monitoring Requirements:

- a. The permittee shall install, certify, operate, and maintain the PM CEMS as specified in 40 CFR 60.48Da(p), 40 CFR 60.49Da(t), and CFR 60.49Da(v). The permittee shall demonstrate compliance with the PM emission limit in 40 CFR 60.42(Da(c)(1) by calculating the PM emission rate by multiplying the average hourly PM output concentration (measured according to the provisions of 40 CFR 60.49Da(t)), by the average hourly flow rate (measured according to the provisions of 40 CFR 60.49Da(l) or 40 CFR 60.49Da(m)), and dividing by the average hourly gross energy output (measured according to the provisions of 40 CFR 60.49Da(k)) or the average hourly net energy output, as applicable [40 CFR 60.48Da(n)].
- b.
 - (1) The permittee shall install, certify, maintain, and operate a CEMS, and record the output of the system, for measuring SO₂ emissions as specified in 40 CFR 60.49Da.
 - (2) If the permittee has installed and certified a SO₂ CEMS according to the requirements of 40 CFR 75.20(c)(1) and Appendix A to 40 CFR Part 75, and is continuing to meet the ongoing quality assurance requirements of 40 CFR 75.21 and Appendix B to 40 CFR Part 75, that CEMS may be used to meet the requirements of 40 CFR 60.49Da, provided that the requirements under 40 CFR 60.49Da(b)(4)(i)-(ii) are met [40 CFR 60.49Da(b)(4)].
- c.
 - (1) The permittee shall install, certify, maintain, and operate a CEMS, and record the output of the system as specified in 40 CFR 60.49Da for measuring NO_x emissions discharged to the atmosphere; or
 - (2) If the permittee has installed a NO_x CEMS to meet the requirements of 40 CFR Part 75 and is continuing to meet the ongoing requirements of 40 CFR Part 75, that CEMS may be used to meet the requirements of 40 CFR 60.49Da(c), except that the permittee shall also meet the requirements of 40 CFR 60.51Da. Data reported to meet the requirements of 40 CFR 60.51Da shall not include data substituted using the missing data procedures in 40 CFR 75, Subpart D, nor shall the data have been bias adjusted according to the procedures of 40 CFR Part 75[40 CFR 60.49Da(c)].
- d. To meet the continuous monitoring requirement for carbon monoxide, the permittee shall use a continuous emission monitor (CEM). The carbon monoxide CEM system shall be operated and maintained in accordance with Performance Specification 4 of Appendix B to 40 CFR Part 60 filed by reference in 401 KAR 50:015 [401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- e. The permittee shall install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring the O₂ or carbon dioxide (CO₂) content of the flue gases at each location where SO₂ or NO_x emissions are monitored. The permittee shall install, certify, operate, and maintain the CO₂, and O₂ CEMS as specified in 40 CFR 60.49Da(w). If the permittee has installed and certified a CO₂ or O₂ monitoring system according to 40 CFR 75.20(c) and Appendix A to 40 CFR Part 75 and the monitoring system continues to meet the applicable quality-assurance provisions of 40 CFR 75.21 and Appendix B to 40 CFR Part 75, that CEMS may be used together with the 40 CFR Part 75 SO₂ concentration monitoring system described in 40 CFR 60.49Da(b), to determine the SO₂ emission rate in lb/MMBtu. SO₂ data used to meet the requirements of 40 CFR 60.51Da shall not include substitute data values derived from the missing data procedures in 40 CFR 75, Subpart D, nor shall the data have been bias adjusted according to the procedures of 40 CFR Part 75 [40 CFR 60.49Da(d)].
- f. The CEMS under 40 CFR 60.49Da(b), (c), and (d) shall be operated and data recorded during all periods of operation of the affected facility including periods of startup, shutdown, and malfunction, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments [40 CFR 60.49Da(e)].
- g. The permittee shall obtain emission data for at least 90 percent of all operating hours for each 30 successive boiler operating days. If this minimum data requirement cannot be met with a CEMS, the owner or operator shall supplement emission data with other monitoring systems approved by the Administrator or the reference methods and procedures as described in 40 CFR 60.49Da(h) [40 CFR 60.49Da(f)(2)].
- h. The 1-hour averages required under paragraph 40 CFR 60.13(h) shall be expressed in ng/J (lb/MMBtu) heat input and used to calculate the average emission rates under 40 CFR 60.48Da. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2) [40 CFR 60.49Da(g)].
- i. When it becomes necessary to supplement CEMS data to meet the minimum data requirements in 40 CFR 60.49Da(f), the permittee shall use the reference methods and procedures as specified in 40 CFR 60.49Da(h) or (j) [40 CFR 60.49Da(h)].
- j. The procedures specified in 40 CFR 60.49Da(k) shall be used to determine gross energy output when demonstrating compliance with an output-based standard [40 CFR 60.49Da(k)].
- k. When demonstrating compliance with an output-based standard, the permittee shall install, certify, operate, and maintain a continuous flow monitoring system meeting the requirements of Performance Specification 6 of Appendix B of 40 CFR Part 60 and the calibration drift (CD) assessment, relative accuracy test audit (RATA), and reporting provisions of Procedure 1 of Appendix F of 40 CFR Part 60, and record the output of the system, for measuring the volumetric flow rate of exhaust gases discharged to the atmosphere; or [40 CFR 60.49Da(l)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- l. Alternatively, data from a continuous flow monitoring system certified according to the requirements of 40 CFR 75.20(c) and Appendix A to 40 CFR Part 75, and continuing to meet the applicable quality control and quality assurance requirements of 40 CFR 75.21 and Appendix B to 40 CFR Part 75, may be used. Flow rate data reported to meet the requirements of 40 CFR 60.51Da shall not include substitute data values derived from the missing data procedures in subpart D of 40 CFR Part 75, nor shall the data have been bias adjusted according to the procedures of 40 CFR Part 75 [40 CFR 60.49Da(m)].
- m. The permittee shall prepare and submit to the Division for approval a unit-specific monitoring plan for each monitoring system, at least 45 days before commencing certification testing of the monitoring systems. The permittee shall comply with the requirements in its plan. The plan shall address the requirements in 40 CFR 60.49Da(s) [40 CFR 60.49Da(s)].
- n. The permittee shall monitor and record fuel usage (tonnage) including the TDF tonnage and 10 percent tire to coal ratio on a daily basis [401 KAR 52:020, Section 10].
- o. For sulfuric acid mist emissions, the permittee shall monitor rate of limestone injection in conjunction with the initial source tests to establish excursion and exceedance levels [40 CFR Part 64].
- p. The permittee shall monitor the time between ignition and the time minimum sustainable load of 200 MWg for one hour at Emissions Unit 17 is achieved [401 KAR 51:017, 401 KAR 52:020 Section 10].
- q. Continuous monitoring systems used after April 16, 2013 to demonstrate compliance with the HAP emission limits established by 40 CFR Part 63, Subpart UUUUU shall be operated and maintained in accordance with 40 CFR 63.10010. A site specific monitoring plan may be required for continuous parameter monitoring systems or CEMS used to demonstrate compliance with applicable emission limits. Monitoring and data collection shall follow the procedures set forth in 40 CFR 63.10020 [40 CFR 63.10000(d)].

5. Specific Recordkeeping Requirements:

- a. The permittee shall record and maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by 40 CFR 60, Subpart Da in a permanent form suitable for inspection [401 KAR 52:020, Section 10].
- b. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR, Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions) [40

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

CFR 64.9(b)(1)]. Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements [40 CFR 64.9(b)(2)].

- c. The permittee shall maintain the records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the affected facility, any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative [401 KAR 51:017, 401 KAR 52:020, Section 10].
- d. The permittee shall maintain the results of all compliance tests, and [401 KAR 52:020, Section 10]:
 - (1) Record continuously the SO₂ emission rate at the outlet of the dry lime scrubber using the CEM system.
 - (2) Record continuously the opacity of visual emissions at the outlet of the baghouse using the COM system.
 - (3) Record continuously the PM emissions at the outlet of the baghouse using a PM-CEM system.
 - (4) Record continuously the carbon monoxide emission rate using the CEM system.
 - (5) Record fuel usage (tonnage) including the TDF tonnage and tire to coal ratio.
- e. The permittee shall record the time between ignition and the time minimum sustainable load of 200 MWg for one hour at Emissions Unit 17 is achieved, and shall calculate and record the elapsed time between the two [401 KAR 51:017, 401 KAR 52:020, Section 10].
- f. The permittee shall maintain the following:
 - (1) Copies of all notifications and reports submitted in compliance with 40 CFR Part 63, Subpart UUUUU [40 CFR 63.10032(a)(1)].
 - (2) Records of performance stack tests, fuel analysis or other compliance demonstrations and performance evaluations [40 CFR 63.10032(a)(2)].
 - (3) Records regarding operations and deviations of CEMS or CPMS [40 CFR 63.10032(b)].
 - (4) Records required in Table 7 of 40 CFR Part 63, Subpart UUUUU [40 CFR 63.10032(c)].
 - (5) Records regarding monthly fuel use; combustion of non-hazardous secondary materials; qualification of the unit as a low emitting EGU (if applicable); emissions averaging implementation plan (if applicable); occurrence and duration of startup, shutdown and

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

malfunction and actions taken during periods of malfunction to minimize emissions; and types and amounts of fuel used during startup and shutdown [40 CFR 63.10032(d)-(i)].

- (6) Records shall be kept in accordance with 40 CFR 63.10033.

6. Specific Reporting Requirements:

- a. For SO₂, NO_x, and PM emissions, the performance test data from the initial and subsequent performance tests and from the performance evaluation of the continuous monitors shall be reported to the Administrator [40 CFR 60.51Da(a)].
- b. For SO₂ and NO_x the following information shall be reported to the Administrator for each 24-hour period [40 CFR 60.51Da(b)].
- (1) Calendar date.
 - (2) The average SO₂ and NO_x emission rates (ng/J, lb/MMBtu, or lb/MWh) for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the emission standards; and, description of corrective actions taken.
 - (3) When complying with the percent reduction requirement, percent reduction of the potential combustion concentration of SO₂ for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.
 - (4) Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 75 percent of the hours of operation of the facility; justification for not obtaining sufficient data; and description of corrective actions taken.
 - (5) Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, or malfunction.
 - (6) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
 - (7) Identification of times when hourly averages have been obtained based on manual sampling methods.
 - (8) Identification of the times when the pollutant concentration exceeded full span of the CEMS.
 - (9) Description of any modifications to CEMS which could affect the ability of the CEMS to comply with Performance Specifications 2 or 3.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. If the minimum quantity of emission data as required by 40 CFR 60.49Da is not obtained for any 30 successive boiler operating days, the following information obtained under the requirements of 40 CFR 60.48Da(h) is reported to the Administrator for that 30-day period [40 CFR 60.51Da(c)]:
- (1) The number of hourly averages available for outlet emission rates (n_o) and inlet emission rates (n_i) as applicable.
 - (2) The standard deviation of hourly averages for outlet emission rates (s_o) and inlet emission rates (s_i) as applicable.
 - (3) The lower confidence limit for the mean outlet emission rate (E_o^*) and the upper confidence limit for the mean inlet emission rate (E_i^*) as applicable.
 - (4) The applicable potential combustion concentration.
 - (5) The ratio of the upper confidence limit for the mean outlet emission rate (E_o^*) and the allowable emission rate (E_{std}) as applicable.
- d. For any periods for which SO₂ or NO_x emissions data are not available, the permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability [40 CFR 60.51Da(f)].
- e. The permittee shall submit a signed statement indicating whether [40 CFR 60.51Da(h)]:
- (1) The required CEMS calibration, span, and drift checks or other periodic audits have or have not been performed as specified.
 - (2) The data used to show compliance was or was not obtained in accordance with approved methods and procedures of this part and is representative of plant performance.
 - (3) The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.
 - (4) Compliance with the standards has or has not been achieved during the reporting period.
- f. The permittee shall submit the written reports required by 40 CFR 60.51Da and 40 CFR 60, Subpart A to the Administrator semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period [40 CFR 60.51Da(j)].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- g. The permittee may submit electronic quarterly reports for SO₂ and NO_x in lieu of submitting the written reports required under 40 CFR 60.51Da(b) and (i). The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the permittee indicating whether compliance with the applicable emission standards and minimum data requirements of 40 CFR 60, Subpart Da was achieved during the reporting period [40 CFR 60.51Da(k)].
- h. CAM Requirements
A report for monitoring under 40 CFR Part 64 shall include, at a minimum, the information required under 40 CFR 70.6(a)(3)(iii) and the following information, as applicable [40 CFR 64.9(a)(2)]:
- (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - (ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - (iii) A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.
- i. For startup and shutdown events, the permittee shall report [401 KAR 51:017, 401 KAR 52:020, Section 10]:
- (1) The type of startup (cold, warm, or hot);
 - (2) The reason why the startup was determined to be cold, warm, or hot (or the conditions that dictated a cold, warm, or hot startup);
 - (3) The elapsed time of (or duration of) the startup;
 - (4) The manufacturer's recommended duration for that type of startup or alternatively, typical, historical durations for that type of startup based upon good engineering practices; and
 - (5) Whether or not the duration of the startup exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of the deviations from the startup and shutdown plan, including why the startup exceeded recommended or typical durations.
- j. The permittee shall submit the following [40 CFR 63.10031(f)]:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (1) Compliance reports as specified in 40 CFR 63.10031(a)-(d) and (g).
- (2) The results of performance testing according to the requirements of 40 CFR 63.10031(f).
- k. The permittee shall maintain on-site and submit, if requested by the Division, an annual report documenting performance tune-ups conducted by the permittee [40 CFR 63.10021(e)].
- l. The permittee shall meet the notification and reporting requirements in 40 CFR 63.10030 and 40 CFR 63.10031.

7. Specific Control Equipment Operating Conditions:

- a. The CFB, baghouse, SNCR, and dry lime scrubber shall be operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b. Records regarding the maintenance of the control equipment shall be maintained.
- c. See Section E for additional requirements.
- d. Control Equipment Operating Conditions for the dry lime scrubber
The permittee shall monitor SO₂ emissions continuously using the CEM system [401 KAR 52:020, Section 10]. Compliance with the SO₂ emissions limitation assures proper operation of the dry lime scrubber.
- e. Control Equipment Operating Conditions for the baghouse
Compliance with the PM limitation as measured by the PM-CEM indicates proper operation of the baghouse [401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 04 - Coal Handling Operations

Description:

Transfer towers #1, #2 and #3, reclaim hoppers, conveyors, crusher houses, and conveyor drop points.

Operating rate: 4000 tons/hr

Control Equipment: Enclosures, Covered Conveyors, Dust Suppression

Construction commenced: Prior to 1975

Applicable Regulations:

40 CFR 60, Subpart Y Standards of performance for coal preparation plants

1. Operating Limitations:

Not applicable.

2. Emission Limitations:

The permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater [40 CFR 60.254(a)].

3. Testing Requirements:

The permittee shall conduct all performance tests required by 40 CFR 60.8 to demonstrate compliance with the applicable emission standards using the methods identified in 40 CFR 60.257 [40 CFR 60.255(a)].

4. Specific Monitoring Requirements:

The permittee shall perform a qualitative visual observation of the emissions for each emission source on a weekly basis and maintain a log of the observation. If visible emissions are seen, the permittee shall determine the opacity of emissions by U.S. EPA Reference Method 9 [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the result of all compliance tests [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

- a. The permittee shall report semiannually all 6-minute average opacities that exceed the applicable standard [40 CFR 60.258(b)(3)].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. Within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with 40 CFR 60, Subpart Y, the permittee shall submit the test data to US EPA by successfully entering the data electronically into US EPA's WebFIRE data base available at <http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main>. For performance tests that cannot be entered into WebFIRE (i.e., U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 opacity performance tests) the permittee shall mail a summary copy to United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; mail code: D243-01; RTP, NC 27711 [40 CFR 60.258(d)].
- c. See Section F.

7. Specific Control Equipment Operating Conditions:

- a. Control equipment shall be operated to maintain compliance with applicable requirements, consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b. Records regarding maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 06 - One fly ash silo (Truck loadout)

Description:

The maximum loading rate: 300 tons/hr.

Control equipment: baghouses

Construction commenced: 1979

Applicable Regulations:

401 KAR 59:010 New Process Operations

1. Operating Limitations:

Not applicable.

2. Emission Limitations:

- a. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack which is equal to or greater than twenty (20) percent opacity [401 KAR 59:010, Section 3(1)(a)]. Compliance shall be demonstrated by U.S. EPA Reference Method 9. See 4.a Specific Monitoring Requirements [401 KAR 59:010, Section 4, 401 KAR 52:020, Section 10].
- b. Particulate matter emissions shall not exceed 43.12 lb/hr. Compliance shall be demonstrated by the formula: PM emissions = emission factor of 0.72 lbs of PM per ton of fly ash processed times (1-0.99) removal efficiency times tons of ash processed per month divided by hours of operation per month [401 KAR 59:010, Section 3(2)(a)].

3. Testing Requirements:

See 4.a Specific Monitoring Requirements.

4. Specific Monitoring Requirements:

- a. The permittee shall perform a qualitative observation of the emissions from each stack on a weekly basis and maintain a log of the observations. If emissions are visible, the permittee shall determine the opacity of emissions by U.S. EPA Reference Method 9 [401 KAR 50:055, Section 2, 401 KAR 52:020, Section 10].
- b. The permittee shall monitor the amount of ash processed in tons and hours of operation per month [401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Recordkeeping Requirements:

Records of the ash processed in tons and hours of operation per month shall be maintained [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

- a. The control equipment shall be operated to maintain compliance with applicable requirements, consistent with manufacturer's specifications and standard engineering practices [401 KAR 50:055, Section 2].
- b. Records regarding maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 07 - Coal Handling Operations

Description:

Rotary railcar unloader, barge unloader, circular stacker reclaimers

Operating rate: 4,600 tons/hr

Construction commenced: Prior to 1975

Applicable Regulations:

401 KAR 63:010 Fugitive emissions

1. Operating Limitations:

- a. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following [401 KAR 63:010, Section 3]:
 - (1) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - (2) Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - (3) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations;
 - (4) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
 - (5) The maintenance of paved roadways in a clean condition;
 - (6) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water.
- b. No person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate [401 KAR 63:010, Section 3].

2. Emission Limitations:

Not applicable.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

Not applicable.

4. Specific Monitoring Requirements:

The permittee shall monitor actions taken to reduce fugitive emissions [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of actions taken to reduce fugitive emissions [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

- a. The control equipment (including but not limited to hoods, enclosures, use of dust suppressant/foam, telescopic chute, and water spray system) shall be operated to maintain compliance with applicable requirements consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b. Records regarding maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 09 - Coal Storage Pile

Description:

Unit 03 and Unit 04 Coal Storage Pile

Control Equipment: Wet Suppression, or Dust Suppressant

Operating Rate: 1800 tons/hour

Construction Commenced Date: February 8, 2002

Applicable Regulations:

401 KAR 63:010 Fugitive emissions

401 KAR 51:017 Prevention of significant deterioration of air quality

1. Operating Limitations:

- a. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following [401 KAR 63:010, Section 3]:
 - (1) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - (2) Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - (3) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations;
 - (4) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
 - (5) The maintenance of paved roadways in a clean condition;
 - (6) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water.
- b. No person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate [401 KAR 63:010, Section 3].
- c. The permittee shall install and operate control methods selected as BACT (wet suppression or dust suppressant) [401 KAR 51:017].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

Not applicable.

3. Testing Requirements:

Not applicable.

4. Specific Monitoring Requirements:

The permittee shall monitor application of wet suppression or dust suppressant as required by BACT [401 KAR 51:017].

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the use of wet suppression or dust suppressant [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

- a. The control equipment (including, but not limited to, use of dust suppressant/foam, and wet suppression) shall be operated to maintain compliance with applicable requirements, and consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b. Records regarding maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 10 - Coal Silos (4)

Description:

Machine Point 01 - Coal Silos

Control Equipment: Baghouse, shared with Emissions Unit 14, Limestone Silos

Operating Rate: 860 tons/hour

Construction Commenced Date: February 8, 2002

Applicable Regulations:

40 CFR 60, Subpart Y Standards of Performance for Coal Preparation Plants.

401 KAR 51:017 Prevention of significant deterioration of air quality.

1. Operating Limitations:

The permittee shall install and operate control methods selected as BACT (baghouse) [401 KAR 51:017].

2. Emission Limitations:

a. The permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater [40 CFR 60.254(a)].

b. The baghouse shall exhibit a design control efficiency of at least 99 percent [401 KAR 51:017].

3. Testing Requirements:

The permittee shall conduct all performance tests required by 40 CFR 60.8 to demonstrate compliance with the applicable emission standards using the methods identified in 40 CFR 60.257 [40 CFR 60.255(a)].

4. Specific Monitoring Requirements:

The permittee shall perform a qualitative observation of the emissions from each stack on a weekly basis and maintain a log of the observations. If emissions are visible, the permittee shall determine the opacity of emissions by U.S. EPA Reference Method 9 [401 KAR 50:055, Section 2, 401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

The permittee shall maintain the results of all compliance tests [401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

- a. The permittee shall report semiannually all 6-minute average opacities that exceed the applicable standard [40 CFR 60.258(b)(3)].
- b. Within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with 40 CFR Part 60, Subpart Y, the permittee shall submit the test data to US EPA by successfully entering the data electronically into US EPA's WebFIRE data base available at <http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main>. For performance tests that cannot be entered into WebFIRE (i.e., U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 opacity performance tests) the permittee shall mail a summary copy to United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; mail code: D243-01; RTP, NC 27711 [40 CFR 60.248(d)].
- c. See Section F.

7. Specific Control Equipment Operating Conditions:

- a. The control equipment shall be maintained and operated to ensure the emission unit is in compliance with the applicable requirements and consistent with manufacturer's specifications and standard operating practices [401 KAR 52:020, Section 10].
- b. Records regarding maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 11 - Bed Ash Handling System

Description:

Machine Point 01 – Bed Ash Silo

Control Equipment: Baghouses

Operating Rate: 100 tons/hour

Construction Commenced Date: February 8, 2002

Applicable Regulations:

401 KAR 59:010 New process operations

401 KAR 51:017 Prevention of significant deterioration of air quality

1. Operating Limitations:

The permittee shall install and operate control equipment selected as BACT (baghouses) [401 KAR 51:017].

2. Emission Limitations:

- a. The permittee shall not cause to be discharged into the atmosphere from the emissions unit gases which exhibit twenty (20) percent opacity or greater [401 KAR 51:017, 401 KAR 59:010].
- b. The baghouses shall exhibit a design control efficiency of at least 99 percent [401 KAR 51:017].
- c. Particulate matter emissions shall not exceed 36.17 lb/hr [401 KAR 59:010]. Compliance shall be demonstrated by the formula: PM emissions = emission factor of 1.5 lbs of PM per ton of ash processed times (1-0.99) removal efficiency times tons of ash processed per month divided by hours of operation per month [401 KAR 52:020, Section 10].

3. Testing Requirements:

- a. The permittee shall determine the opacity of emissions from each stack by U.S. EPA Reference Method 9 annually, or more frequently if requested by the Division for Air Quality [401 KAR 59:010].
- b. U.S. EPA Reference Method 5 or Method 17 shall be performed as required by the Division for Air Quality to determine particulate matter concentration [401 KAR 50:055, Section 2, 401 KAR 59:010, Section 4, 401 KAR 50:045].

4. Specific Monitoring Requirements:

- a. The permittee shall perform a qualitative observation of the emissions from each stack on a weekly basis and maintain a log of the observations. If emissions are visible, the permittee

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

shall determine the opacity of emissions by U.S. EPA Reference Method 9 [401 KAR 50:055, Section 2, 401 KAR 52:020, Section 10].

- b. The pressure drop across baghouses will be checked and recorded on a continuous basis and compared with the manufacturer's specified operating range to ensure compliance [401 KAR 52:020, Section 10].
- c. The permittee shall monitor the amount of ash processed in tons and hours of operation per month [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of amount of ash processed in tons and hours of operation per month [401 KAR 52:020, Section 10].
- b. The permittee shall maintain results of all compliance tests and calculations [401 KAR 52:020, Section 10].
 - (1) The permittee shall record each week the date and time of the visible emissions monitoring. If a U.S. EPA Reference Method 9 is required, the opacity shall be recorded. In case of an exceedance, the permittee shall record the reason (if known) and the measures taken to minimize or eliminate the exceedance.
 - (2) Pressure drop across the baghouses will be monitored through the use of a strip recorder or other continuous recording device. The permittee shall maintain strip recorder (or other continuous recording device) charts. In case of out-of-range indications, the permittee shall log the date and time of the excursion, the reason for the excursion (if known) and the measures taken to correct the excursion.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions:

- a. The control equipment shall be maintained and operated to maintain compliance with permitted emission limitations and consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b. Records regarding maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 12 - Fly Ash Handling System

Description:

Machine Point 01 Fly Ash Silo

Control Equipment: Baghouses

Operating Rate: 134 tons/hour

Construction Commenced Date: February 8, 2002

Applicable Regulations:

401 KAR 59:010 New process operations

401 KAR 51:017 Prevention of significant deterioration of air quality

1. Operating Limitations:

The permittee shall install and operate control equipment selected as BACT (baghouses) [401 KAR 51:017].

2. Emission Limitations:

- a. The permittee shall not cause to be discharged into the atmosphere from the emissions unit gases which exhibit twenty (20) percent opacity or greater [401 KAR 51:017, 401 KAR 59:010].
- b. The baghouses shall exhibit a design control efficiency of at least 99 percent [401 KAR 51:017].
- c. Particulate matter emissions shall not exceed 37.9 lb/hr based on a three-hour average [401 KAR 59:010].

3. Testing Requirements:

- a. The permittee shall determine the opacity of emissions from each stack as required by subsection 4(a) below, or more frequently if requested by the Division for Air Quality [401 KAR 59:010].
- b. U.S. EPA Reference Method 5 or Method 17 shall be performed as required by the Division for Air Quality to determine particulate matter concentration [401 KAR 50:055, Section 2, 401 KAR 59:010, Section 4, 401 KAR 50:045].

4. Specific Monitoring Requirements:

- a. The permittee shall perform a qualitative observation of the emissions from each stack on a weekly basis and maintain a log of the observations. If emissions are visible, the permittee shall determine the opacity of emissions by U.S. EPA Reference Method 9 [401 KAR 50:055, Section 2, 401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. The pressure drop across baghouses will be checked and recorded on a continuous basis and compared with the manufacturer's specified operating range to ensure compliance. If a U.S. EPA Reference Method 9 is required, the opacity shall be recorded [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of amount of ash processed [401 KAR 52:020, Section 10].
- b. The permittee shall maintain results of all compliance tests and calculations [401 KAR 52:020, Section 10].
 - (1) The permittee shall record each week the date and time of the visible emissions monitoring. If a U.S. EPA Reference Method 9 is required, the opacity shall be recorded. In case of an exceedance, the permittee shall record the reason (if known) and the measures taken to minimize or eliminate the exceedance.
 - (2) Pressure drop across the baghouses will be monitored through the use of a strip recorder or other continuous recording device. The permittee shall maintain strip recorder (or other continuous recording device) charts. In case of out-of-range indications, the permittee shall log the date and time of the excursion, the reason for the excursion (if known) and the measures taken to correct the excursion.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions:

- a. The control equipment shall be maintained and operated to maintain compliance with permitted emission limitations and consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b. Records regarding maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 14 - Limestone Storage

Description:

Machine Point 01 – Limestone Silos

Control Equipment: Baghouse, shared with Emissions Unit 10, Coal Silos

Operating Rate: 860 tons/hour

Construction Commenced Date: February 8, 2002

Applicable Regulations:

40 CFR 60, Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants

401 KAR 51:017 Prevention of significant deterioration of air quality

1. Operating Limitations:

The permittee shall install and operate control equipment selected as BACT (baghouse) [401 KAR 51:017].

2. Emission Limitations:

- a. Particulate matter emissions shall be controlled by a baghouse with a design control efficiency of at least 99 percent [401 KAR 51:017].
- b. Particulate matter emissions shall not exceed 0.05 g/dscm (0.022 gr/dscf) and shall not exhibit greater than 7 percent opacity [40 CFR 60.672(a)].

3. Testing Requirements:

- a. The permittee shall determine compliance annually with opacity using U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 and the procedures in 40 CFR 60.11 [40 CFR 60.675(b)]. For performance tests involving only U.S. EPA Reference Method 9 testing, the permittee may reduce the 30-day advance notification of performance test in 40 CFR 60.7(a)(6) and 40 CFR 60.8(d) to a 7-day advance notification [40 CFR 60.675(g)].
- b. U.S. EPA Reference Method 5 or Method 17 in Appendix A to 40 CFR Part 60 shall be used to determine the particulate matter concentration as required by the Division [40 CFR 60.675(b)(1), 401 KAR 52:020, Section 10]].

4. Specific Monitoring Requirements:

- a. The permittee shall perform a qualitative observation of emissions from each stack on a weekly basis and maintain a log of the observations. If emissions are visible, the permittee shall determine the opacity of emissions by U.S. EPA Reference Method 9 [401 KAR 50:055, Section 2, 401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. The pressure drop across the baghouse will be checked and recorded on a continuous basis and compared with the manufacturer's specified operating range to ensure compliance [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- a. The permittee shall record each week the date and time of the visible emissions monitoring. If a U.S. EPA Reference Method 9 is required, the opacity shall be recorded. In case of exceedances, the permittee shall record the reason (if known) and the measures taken to minimize or eliminate the exceedances [401 KAR 52:020, Section 10].
- b. Pressure drop across the baghouse will be monitored through the use of a strip recorder or other continuous recording device. The permittee shall maintain strip recorder (or other continuous recording device) charts. In case of out-of-range indications, the permittee shall log the date and time of the excursion causing an indication, the reason for the excursion (if known) and the measures taken to correct the excursion [401 KAR 52:020, Section 10].
- c. See Section F, Conditions 5, 6, 7 and 8.

6. Specific Reporting Requirements:

The permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards of 40 CFR 60.672, including reports of opacity observations made using U.S. EPA Reference Method 9 [40 CFR 60.676(f), 401 KAR 52:020, Section 10].

7. Specific Control Equipment Operating Conditions:

- a. The control equipment shall be maintained and operated to ensure the emission unit is in compliance with applicable requirements and consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b. Records regarding maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 15 - Limestone Unloading/Storage

Description:

Machine Point 01 – Limestone Truck Dump, Conveyor, and Storage Pile

Control Equipment: Wet Suppression or Dust Suppressant

Operating Rate: 860 tons/hour

Construction Commenced Date: February 8, 2002

Applicable Regulations:

401 KAR 63:010 Fugitive emissions

401 KAR 51:017 Prevention of significant deterioration of air quality

1. Operating Limitations:

- a. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following [401 KAR 63:010, Section 3]:
 - (1) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - (2) Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - (3) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations;
 - (4) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
 - (5) The maintenance of paved roadways in a clean condition;
 - (6) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water.
- b. No person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate [401 KAR 63:010, Section 3].
- c. The permittee shall install control methods selected as BACT (wet suppression or dust suppressant [401 KAR 51:017]).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

Not applicable.

3. Testing Requirements:

Not applicable.

4. Specific Monitoring Requirements:

The permittee shall monitor fugitive emissions from the limestone truck dump as required by BACT [401 KAR 51:017].

5. Reporting and Recordkeeping Requirements:

Records of limestone processed (tonnage) shall be maintained [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions:

- a. The control equipment (including, but not limited to, use of dust suppressant and wet suppression) shall be operated to maintain compliance with applicable requirements and consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b. Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 16 - Cooling Tower

Description:

Control Equipment: 0.005 percent Drift Eliminators

Operating Rate: 2600 GPM

Construction Commenced Date: February 8, 2002

Applicable Regulations:

401 KAR 63:010 Fugitive emissions

401 KAR 51:017 Prevention of significant deterioration of air quality

1. Operating Limitations

- a. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following [401 KAR 63:010, Section 3]:
 - (1) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - (2) Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - (3) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations;
 - (4) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
 - (5) The maintenance of paved roadways in a clean condition;
 - (6) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water.
- b. No person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate [401 KAR 63:010, Section 3].
- c. To preclude applicability of 40 CFR 63, Subpart Q, the permittee shall not use chromium-based water treatment chemicals in the cooling towers [40 CFR 63.400(a)].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

The cooling towers shall utilize 0.005 percent Drift Eliminators [401 KAR 51:017].

3. Testing Requirements:

Not applicable.

4. Specific Monitoring Requirements:

Not applicable.

5. Reporting and Recordkeeping Requirements:

The permittee shall maintain the records of manufacturer design of the Drift Eliminators [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions

- a. The control equipment shall be operated and maintained consistent with manufacturer's specifications and standard operating practices to ensure the emission unit is in compliance with applicable requirements. [401 KAR 50:055, Section 2].
- b. Records regarding maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. Refer to Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 18 - Coal Silos

Description:

Machine point 04 - Coal Silos

Control Equipment: Baghouse with 99 percent emission control efficiency, shared with Emissions Unit 21

Operating Rate: 860 tons/hour

Construction Commenced Date: 2006

Applicable Regulations:

40 CFR 60, Subpart Y Standards of Performance for Coal Preparation Plants

401 KAR 51:017 Prevention of significant deterioration of air quality

1. Operating Limitations:

The permittee shall install and operate control methods selected as BACT (baghouse) [401 KAR 51:017].

2. Emission Limitations:

- a. The permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater [40 CFR 60.254(a)].
- b. The baghouse utilized shall exhibit a design control efficiency of at least 99 percent, with a BACT limit of 0.10 lb/hr (or 0.00013 lb/ton) [401 KAR 51:017].

3. Testing Requirements:

The permittee shall conduct all performance tests required by 40 CFR 60.8 to demonstrate compliance with the applicable emission standards using the methods identified in 40 CFR 60.257 [40 CFR 60.255(a)].

4. Specific Monitoring Requirements:

- a. The permittee shall perform a qualitative observation of emissions from each stack on a weekly basis and maintain a log of the observations. If emissions are visible, the permittee shall determine the opacity of emissions by U.S. EPA Reference Method 9 [401 KAR 50:055, Section 2, 401 KAR 52:020, Section 10].
- b. The pressure drop across the baghouse will be monitored and recorded on a continuous basis and compared with the manufacturer's specified operating range to ensure compliance [401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**5. Specific Recordkeeping Requirements:**

- a. The permittee shall monitor and record the amount of coal received and processed [401 KAR 52:020, Section 10].
- b. The permittee shall maintain results of all compliance tests and calculations [401 KAR 52:020, Section 10].
 - (1) The permittee shall record each week the date and time of the visible emissions monitoring. If a U.S. EPA Reference Method 9 is required, the opacity shall be recorded. In case of exceedances, the permittee shall record the reason (if known) and the measures taken to minimize or eliminate the exceedances.
 - (2) Pressure drop across the baghouse shall be monitored through the use of a strip recorder or other continuous recording device. The permittee shall maintain strip recorder (or other continuous recording device) charts. In case of out-of-range indications, the permittee shall log the date and time of the excursion, the reason for the excursion (if known) and the measures taken to correct the excursion.

6. Specific Reporting Requirements:

- a. The permittee shall report semiannually all 6-minute average opacities that exceed the applicable standard [40 CFR 60.258(b)(3)].
- b. Within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with 40 CFR 60, Subpart Y, the permittee shall submit the test data to US EPA by successfully entering the data electronically into US EPA's WebFIRE data base available at <http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main>. For performance tests that cannot be entered into WebFIRE (i.e., U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 opacity performance tests) the permittee shall mail a summary copy to United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; mail code: D243-01; RTP, NC 27711 [40 CFR 60.258(d)].
- c. See Section F.

7. Specific Control Equipment Operating Conditions:

- a. The baghouse shall be maintained and operated to ensure the emission unit is in compliance with the applicable requirements and consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b. Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 19 - Ash Handling System (04A)

Description:

Machine Point 04 – Ash Silo

Control Equipment: Baghouses, 99 percent emission control efficiency

Operating Rate: 134 tons/hour

Construction Commenced Date: 2006

Applicable Regulations:

401 KAR 59:010 New Process Operations

401 KAR 51:017 Prevention of significant deterioration of air quality

1. Operating Limitations:

The permittee shall install and operate control equipment selected as BACT (baghouses) [401 KAR 51:017].

2. Emission Limitations:

- a. The permittee shall not cause to be discharged into the atmosphere from the emissions unit gases which exhibit twenty (20) percent opacity or greater [401 KAR 59:010].
- b. The baghouse shall exhibit a design control efficiency of at least 99 percent, with a BACT limit of 0.011 lb/ton when handling bed ash and with a BACT limit of 0.0037 lb/ton when handling fly ash [401 KAR 51:017].
- c. Particulate matter emissions shall not exceed 37.9 lb/hour [401 KAR 59:010]. Compliance shall be demonstrated by the formula: PM emissions = Emission Factor(lbs) per ton of ash processed times (1-0.99) removal efficiency times tons of ash processed per month divided by hours of operation per month. Emission Factor = 1.12 lbs/ton for bed ash and 0.373 lbs/ton for fly ash [401 KAR 52:020, Section 10]

3. Testing Requirements:

U.S. EPA Reference Method 5 or Method 17 shall be performed as required by the Division for Air Quality to determine particulate matter concentration [401 KAR 50:055, Section 2, 401 KAR 52:020, Section 10, 401 KAR 50:045].

4. Specific Monitoring Requirements:

- a. The permittee shall perform a qualitative observation of emissions from each stack on a weekly basis and maintain a log of the observations. If emissions are visible, the permittee shall determine the opacity of emissions by U.S. EPA Reference Method 9 [401 KAR 50:055, Section 2, 401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. The pressure drop across baghouses will be checked and recorded on a continuous basis and compared with the manufacturer's specified operating range [401 KAR 52:020, Section 10].
- c. The permittee shall monitor the amount of ash processed in tons and hours of operation per month [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the ash processed in tons and hours of operation per month shall be maintained [401 KAR 52:020, Section 10].
- b. The permittee shall maintain results of all compliance tests and calculations [401 KAR 52:020, Section 10].
 - (1) The permittee shall record each week the date and time of the visible emissions monitoring. If a U.S. EPA Reference Method 9 is required, the opacity shall be recorded. In case of an exceedance, the permittee shall record the reason (if known) and the measures taken to minimize or eliminate the exceedance.
 - (2) Pressure drop across the baghouses will be monitored through the use of a strip recorder or other continuous recording device. The permittee shall maintain strip recorder (or other continuous recording device) charts. In case of out-of-range indications, the permittee shall log the date and time of the excursions, the reason for the excursions (if known) and the measures taken to correct the excursions.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions:

- a. The baghouses shall be maintained and operated to maintain compliance with permitted emission limitations and consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b. Records regarding maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 20 - Ash Handling System (04B)

Description:

Machine Point 04 - Ash Silo

Control Equipment: Baghouses, 99 percent emission control efficiency

Operating Rate: 134 tons/hour

Construction Commenced Date: 2006

Applicable Regulations:

401 KAR 59:010 New Process Operations

401 KAR 51:017 Prevention of significant deterioration of air quality

1. Operating Limitations:

The permittee shall install and operate control equipment selected as BACT (baghouses) [401 KAR 51:017].

2. Emission Limitations:

- a. The permittee shall not cause to be discharged into the atmosphere from the above mentioned emissions units gases which exhibit twenty percent opacity or greater [401 KAR 51:017, 401 KAR 59:010].
- b. The baghouse shall exhibit a design control efficiency of at least 99 percent, with a BACT limit of 0.011 lb/ton when handling bed ash and a BACT limit of 0.0037 lb/ton when handling fly ash [401 KAR 51:017].
- c. Particulate matter emissions shall not exceed 37.9 lb/hour [401 KAR 59:010]. Compliance shall be demonstrated by the formula: $PM \text{ emissions} = \text{Emission Factor}(\text{lbs}) \text{ per ton of ash processed times } (1 - 0.99) \text{ removal efficiency times tons of ash processed per month divided by hours of operation per month. Emission Factor} = 1.12 \text{ lbs/ton for bed ash and } 0.373 \text{ lbs/ton for fly ash [401 KAR 52:020, Section 10]$

3. Testing Requirements:

U.S. EPA Reference Method 5 or Method 17 shall be performed as required by the Division for Air Quality to determine particulate matter concentration [401 KAR 50:055, Section 2, 401 KAR 52:020, Section 10, 401 KAR 50:045].

4. Specific Monitoring Requirements:

- a. The permittee shall perform a qualitative observation of emissions from each stack on a weekly basis and maintain a log of the observations. If emissions are visible, the permittee shall determine the opacity of emissions by U.S. EPA Reference Method 9 [401 KAR 50:055, Section 2, 401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. The pressure drop across baghouses will be checked and recorded on a continuous basis and compared with the manufacturer's specified operating range [401 KAR 52:020, Section 10].
- c. The permittee shall monitor the amount of ash processed in tons and hours of operation per month [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the ash processed in tons and hours of operation per month [401 KAR 52:020, Section 10].
- b. The permittee shall maintain results of all compliance tests and calculations [401 KAR 52:020, Section 10].
 - (1) The permittee shall record each week the date and time of the visible emissions monitoring. If a U.S. EPA Reference Method 9 is required, the opacity shall be recorded. In case of an exceedance, the permittee shall record the reason (if known) and the measures taken to minimize or eliminate the exceedance.
 - (2) Pressure drop across the baghouses will be monitored through the use of a strip recorder or other continuous recording device. The permittee shall maintain strip recorder (or other continuous recording device) charts. In case of out-of-range indications, the permittee shall log the date and time of the excursions, the reason for the excursions (if known) and the measures taken to correct the excursions.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions:

- a. The baghouses shall be maintained and operated to maintain compliance with permitted emission limitations and consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b. Records regarding maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Emissions Unit 21 - Limestone Silos****Description:**

Machine Point 04 – Limestone Silos

Control Equipment: Baghouse, 99 percent emission control efficiency, shared with Emissions Unit 18

Operating Rate: 860 tons/hour

Construction Commenced Date: 2006

Applicable Regulations:

40 CFR 60, Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants

401 KAR 51:017 Prevention of significant deterioration of air quality

1. Operating Limitations:

The permittee shall install and operate control equipment selected as BACT (baghouse) [401 KAR 51:017].

2. Emission Limitations:

- a. Emissions of particulate matter shall be controlled by a baghouse with a design control efficiency of at least 99 percent [401 KAR 51:017].
- b. Emissions of particulate matter shall not exceed 0.05 g/dscm (0.022 gr/dscf) and shall not exhibit greater than 7 percent opacity [40 CFR 60.675(a)]. Compliance with the PM limit shall be demonstrated by the formula: $PM \text{ emissions (gr/dscf)} = 0.1 \text{ lbs of PM per ton of limestone processed times (1-0.99) removal efficiency times tons of limestone processed per month divided by hours of operation per month divided by 60 minutes per hour divided by 5000 acfm times 7000 gr/lb}$. Compliance with opacity limit shall be demonstrated by U.S. EPA Reference Method 9 of Appendix A-4 to 40 CFR Part 60. See 4. Specific Monitoring Requirements.

3. Testing Requirements:

- a. The permittee shall determine compliance annually with opacity using Method 9 of Appendix A-4 of 40 CFR Part 60 and the procedures in 40 CFR 60.11 [40 CFR 60.675(b)]. For performance tests involving only U.S. EPA Reference Method 9 testing, the permittee may reduce the 30-day advance notification of performance test in 40 CFR 60.7(a)(6) and 40 CFR 60.8(d) to a 7-day advance notification [40 CFR 60.675(g)].
- b. The permittee shall determine compliance with the PM standard as specified in 40 CFR 60.675(b) as required by the Division for Air Quality [401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**4. Specific Monitoring Requirements:**

- a. The permittee shall perform a qualitative observation of emissions from each stack and vent on a weekly basis and maintain a log of the observations. If emissions are visible, the permittee shall determine the opacity of emissions by U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 [401 KAR 52:020, Section 10].
- b. The pressure drop across the baghouse will be checked and recorded on a continuous basis and compared with the manufacturer's specified operating range [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- a. The permittee shall record each week the date and time of the visible emissions monitoring. If a U.S. EPA Reference Method 9 is required, opacity shall be recorded. In case of an exceedance, the permittee shall record the reason (if known) and the measures taken to minimize or eliminate the exceedance [401 KAR 52:020, Section 10].
- b. Pressure drop across the baghouse will be monitored through the use of a strip recorder or other continuous recording device. The permittee shall maintain strip recorder (or other continuous recording device) charts. In case of out-of-range indications, the permittee shall log the date and time of the excursion, the reason for the excursion (if known) and the measures taken to correct the excursion [401 KAR 52:020, Section 10].
- c. Records of the limestone processed in tons and hours of operation per month shall be maintained [401 KAR 52:020, Section 10].
- d. See Section F, Conditions 5, 6, 7 and 8.

6. Specific Reporting Requirements:

The permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 CFR 60.672, including reports of opacity observations made using U.S. EPA Reference Method 9 (40 CFR Part 60, Appendix A-4) [40 CFR 60.676(f)].

7. Specific Control Equipment Operating Conditions:

- a. The control equipment shall be maintained and operated to ensure the emission unit is in compliance with applicable requirements and consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b. Records regarding maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 23 - Cooling Tower

Description:

Generator Unit 04 Cooling Tower

Control Equipment: 0.0005 percent Drift Eliminators

Operating Rate: 2800 GPM

Construction Commenced: 2006

Applicable Regulations:

401 KAR 63:010 Fugitive emissions

401 KAR 51:017 Prevention of significant deterioration of air quality

1. Operating Limitations

- a. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following [401 KAR 63:010, Section 3]:
 - (1) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - (2) Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - (3) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations;
 - (4) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
 - (5) The maintenance of paved roadways in a clean condition;
 - (6) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water.
- b. No person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate [401 KAR 63:010, Section 3].
- c. To preclude applicability of 40 CFR 63, Subpart Q, the permittee shall not use chromium-based water treatment chemicals in the cooling towers. [40 CFR 63.402]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

The cooling tower shall utilize 0.0005 percent Drift Eliminators [401 KAR 51:017].

3. Testing Requirements:

Not applicable.

4. Specific Monitoring Requirements:

The permittee shall monitor total dissolved solids content of the circulating water on a monthly basis [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the manufacturer's design of the Drift Eliminators [401 KAR 52:020, Section 10].
- b. The permittee shall maintain records of maximum pumping capacity and monthly records of the total dissolved solids content [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions:

- a. The drift eliminators shall be operated and maintained to ensure compliance with applicable requirements consistent with manufacturer's specifications and standard operating practices to ensure the emission unit is in compliance with applicable requirements. [401 KAR 50:055, Section 2].
- b. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 24 - Four Diesel Fired Emergency Generators (EP a-d)

Description:

Model: Caterpillar DM 8518 Generator Set
 Maximum Capacity: 6.2 MMBtu/hr (900 hp/672 kW), each unit
 18.1 liters/cylinder, each unit
 Commenced construction: 2008

Applicable Regulations:

40 CFR 60, Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
 40 CFR 63, Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engine

1. Operating Limitations:

- a. The permittee shall operate the emergency stationary ICE according to the requirements in paragraphs 1.a.(1) through (3) of this subsection. In order for the engine to be considered an emergency stationary ICE under 40 CFR 60, Subpart IIII and 40 CFR 63, Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (a)(1) through (3) of this subsection, is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs 1.a.(1) through (3) of this subsection, the engine will not be considered an emergency engine under 40 CFR 60, Subpart IIII and 40 CFR 63, Subpart ZZZZ and shall meet all requirements for non-emergency engines [40 CFR 60.4211(f), 40 CFR 63.6640(f)].
 - (1) There is no time limit on the use of emergency stationary ICE in emergency situations [40 CFR 60.4211(f), 40 CFR 63.6640(f)].
 - (2) Emergency stationary ICE may be operated for any combination of the purposes specified in paragraphs 1.a.(2)(i) through (iii) of this subsection for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph 1.a.(3) of this subsection counts as part of the 100 hours per calendar year allowed [40 CFR 60.4211(f), 40 CFR 63.6640(f)].
 - (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year [40 CFR 60.4211(f), 40 CFR 63.6640(f)].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17 and 40 CFR 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3 [40 CFR 60.4211(f), 40 CFR 63.6640(f)].
 - (iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency [40 CFR 60.4211(f)].
- (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph 1.a.(2) of this subsection. Except as provided in paragraph 1.a.(3)(i) of this subsection, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity [40 CFR 60.4211(f), 40 CFR 63.6640(f)].
- b. The permittee shall operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine [40 CFR 60.4206].
 - c. The permittee shall purchase diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [40 CFR 60.4207(b), takes precedence over 40 CFR 63.6604(c)].
 - d. The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes [40 CFR 63.6625(h)].

2. Emission Limitations:

- a. The permittee shall comply with the emission standards for new nonroad CI engines in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power [40 CFR 60.4205(b)]. Compliance shall be demonstrated by all of the following:
 - (1) Purchasing an engine certified to the emission standards in 40 CFR 60.4205(b) for the same model year and maximum engine power.
 - (2) Installing and configuring the emission unit according to the manufacturer's emission-related specifications except as permitted in 40 CFR 60.4211(g) [40 CFR 60.4211(c)].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (3) Operating and maintaining the emission unit and control device according to the manufacturer's emission-related written instructions except as permitted in 40 CFR 60.4211(g)[40 CFR 60.4211(a)].
- (4) Changing only those emission-related settings that are permitted by the manufacturer except as permitted in 40 CFR 60.4211(g)[40 CFR 60.4211(a)].
- (5) Meeting the requirements of 40 CFR parts 89, 94 and/or 1068, as applicable except as permitted in 40 CFR 60.4211(g) [40 CFR 60.4211(a)].

3. Testing Requirements:

Not applicable.

4. Specific Monitoring Requirements:

- a. The permittee shall meet applicable monitoring requirements of 40 CFR 60.4209 and CFR 40 60.4211 [40 CFR 60.4209].
- b. The permittee shall install a non-resettable hour meter prior to startup of the engine [40 CFR 60.4209(a)].

5. Specific Recordkeeping Requirements:

- a. If the emission unit is equipped with a diesel particulate filter, the permittee shall keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached [40 CFR 60.4214(c)].
- b. The permittee shall keep records of the operation of the emissions unit in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time [401 KAR 52:020, Section 10)].
- c. See Section F and 40 CFR 60.4218 for additional requirements.

6. Specific Reporting Requirements:

- a. The permittee shall submit each applicable report in Table 7 of 40 CFR 63, Subpart ZZZZ [40 CFR 63.6650(a)].
- b. If the engine operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in 40 CFR 63.6640(f)(4)(ii), the permittee shall submit an annual report according to the following requirements [40 CFR 63.6650(h), 40 CFR 60.4214(d)]:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (1) The report shall contain the following information:
 - (i) Company name and address where the engine is located.
 - (ii) Date of the report and beginning and ending dates of the reporting period.
 - (iii) Engine site rating and model year.
 - (iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
 - (v) Hours operated for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii).
 - (vi) Number of hours the engine is contractually obligated to be available for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii).
 - (vii) Hours spent for operation for the purpose specified in 40 CFR 63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 63.6640(f)(4)(ii). The report shall also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
 - (viii) If there were no deviations from the fuel requirements in 40 CFR 63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.
 - (ix) If there were deviations from the fuel requirements in 40 CFR 63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.
 - (2) The annual report shall be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report shall be submitted to the Administrator at the appropriate address listed in 40 CFR 63.13.
 - (3) The first annual report shall cover the calendar year 2015 and shall be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year shall be submitted no later than March 31 of the following calendar year. [40 CFR 63.6650(h)(2)]
- c. If the emission units operate or are contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii) or that

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

operate for the purposes specified in 40 CFR 60.4211(f)(3)(i), the permittee shall submit an annual report according to the requirements in 40 CFR 60.4214(d)(1)-(3).

d. See Section F and 40 CFR 60.4218.

7. Specific Control Equipment Operating Conditions:

Not applicable (no control equipment).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 25 - Limestone Unloading/Storage

Description:

Limestone truck loadout (A) and limestone storage pile (B) for facility

Machine Point 01 – Limestone truck dump

Machine Point 02 – Limestone offloading to feeder

Control Equipment: Wet Suppression or Dust Suppressant 90 percent emission control efficiency

Operating Rate: 1300 tons/hour

Construction Commenced: 2006

Applicable Regulations:

401 KAR 63:010 Fugitive emissions

1. Operating Limitations:

- a. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following [401 KAR 63:010, Section 3]:
 - (1) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - (2) Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - (3) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations;
 - (4) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
 - (5) The maintenance of paved roadways in a clean condition;
 - (6) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water.
- b. No person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate [401 KAR 63:010, Section 3].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

Not applicable.

3. Testing Requirements:

Not applicable.

4. Specific Monitoring Requirements:

Not applicable.

5. Reporting and Recordkeeping Requirements:

Not applicable.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

- a. The control equipment (including, but not limited to, use of dust suppressant or wet suppression) shall be operated to maintain compliance with applicable requirements of 401 KAR 63:010, and consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b. Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Emissions Unit 26 - Limestone Preparations****Description:**

Machine Point C to D – 1300 tons/hr Front Loader to Receiving Hopper

Machine Point D to E – 1300 tons/hr Receiving Hopper to Covered Conveyor

Machine Point E to F & G – 1800 tons/hr Covered Conveyor to two Day Bins

Machine Point F & G to H through K – 100 tons/hr each, two Day Bins to two Weigh Feeders

Machine Point H through K to L & M - 100 tons/hour each, two Weigh Feeders to two Ball Mills

Control Equipment: Enclosures on all conveyors, and Baghouses on Day Bins

Construction Commenced Date: 2006

Applicable Regulations:

40 CFR 60, Subpart OOO Standards of Performance for Nonmetallic Plants

1. Operating Limitations:

Not applicable.

2. Emission Limitations:

- a. For affected facilities with capture systems used to capture and transport particulate matter to a control device, particulate matter emissions shall not exceed 0.05 g/dscm (0.022 gr/dscf) and opacity shall not exceed 7 percent for dry control devices. Exceptions to the PM limit may apply. See 40 CFR 60.672(d) through (f) [40 CFR 60.672(a), 40 CFR 60, Subpart OOO, Table 2]. Compliance with the PM standard shall be demonstrated as specified in 40 CFR 60.675(b)(1). Compliance with the opacity standard shall be demonstrated by U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 and the procedures in 40 CFR 60.11 [40 CFR 60.672, 40 CFR 60.675(b)(2)].
- b. For fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems, fugitive emissions shall not exceed 10 percent opacity. Exceptions to the PM limit may apply. See 40 CFR 60.672(d) through (f) [40 CFR 60.672(b), 40 CFR 60, Subpart OOO, Table 3]. Compliance shall be demonstrated by U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 and the procedures in 40 CFR 60.11, with the additions specified in 40 CFR 60.675(c).
- c. If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility shall comply with the emission limits in 40 CFR 60.672 (a) and (b), or the building enclosing the affected facility or facilities shall comply with the following emission limits [40 CFR 60.672(e)]:
 - (1) Fugitive emissions from the building openings (except for vents as defined in 40 CFR 60.671) shall not exceed 7 percent opacity; and

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (2) Vents (as defined in 40 CFR 60.671) in the building shall meet the applicable stack emission limits and compliance requirements in Table 2 of 40 CFR 60, Subpart OOO.

Compliance with the opacity standard in (1) above shall be demonstrated as specified in 40 CFR 60.675(d). Compliance with the PM standard in (2) above shall be demonstrated as specified in 40 CFR 60.675(c).

- d. Any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the applicable stack PM concentration limit (and associated performance testing) in Table 2 of 40 CFR 60, Subpart OOO but shall meet the applicable stack opacity limit and compliance requirements in Table 2 of 40 CFR 60, Subpart OOO. This exemption from the stack PM concentration limit does not apply for multiple storage bins with combined stack emissions [40 CFR 60.672(f)].
- e. Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of 40 CFR 60.672 [40 CFR 60.672(d)].

3. Testing Requirements:

- a. Performance testing shall be conducted at least once by the end of the fourth year after the effective date of this permit (V-15-063) [401 KAR 52:020, Section 10]. In conducting the performance tests required in 40 CFR 60.8, the permittee shall use as reference methods and procedures the test methods in appendices A-1 through A-7 of 40 CFR Part 60 or other methods and procedures as specified in 40 CFR 60.675, except as provided in 40 CFR 60.8(b). Acceptable alternative methods and procedures are given in 40 CFR 60.675(e) [40 CFR 60.675(a)].
- b. Except as provided in 40 CFR 60.657(e)(3) and (4), Method 5 of Appendix A-3 of 40 CFR Part 60 or Method 17 of Appendix A-6 of 40 CFR Part 60 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5 (40 CFR Part 60, Appendix A-3), if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter [40 CFR 60.675(b)(1)].
- c. In determining compliance with opacity standards in 2.b. and c. **Emissions Limitations**, the permittee shall use U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 and the procedures in 40 CFR 60.11, with the following additions [40 CFR 60.675(c)(1)]:
- (1) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
- (2) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (*e.g.*, road dust). The required observer position relative

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

to the sun (U.S. EPA Reference Method 9 of Appendix A-4 of this part, Section 2.1) shall be followed.

- d. In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin using U.S. EPA Reference Method 9 (40 CFR part 60, Appendix A-4), the duration of the U.S. EPA Reference Method 9 (40 CFR part 60, Appendix A-4) observations shall be 1 hour (ten 6-minute averages). The duration of the U.S. EPA Reference Method 9 (40 CFR part 60, Appendix A-4) observations may be reduced to the duration the affected facility operates (but not less than 30 minutes) for baghouses that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time [40 CFR 60.675(c)(2)].
- e. When determining compliance with the fugitive emissions standard in 2.a and c. **Emissions Limitations**, the duration of the U.S. EPA Reference Method 9 (40 CFR part 60, Appendix A-4) observations shall be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of 40 CFR Part 60, Subpart OOO shall be based on the average of the five 6-minute averages [40 CFR 60.675(c)(3)].
- f. To demonstrate compliance with the fugitive emission limits for buildings specified in 2.c. **Emissions Limitations**, the permittee shall complete the testing specified in paragraph (f)(1) and (2) below. Performance tests shall be conducted while all affected facilities inside the building are operating [40 CFR 60.675(d)]. If the building encloses only affected facilities that commenced construction, modification, or reconstruction before April 22, 2008, and the permittee has previously conducted an initial Method 22 (40 CFR Part 60, Appendix A-7) performance test showing zero visible emissions, then the permittee has demonstrated compliance with the opacity limit. If the permittee has not conducted an initial performance test for the building before April 22, 2008, then the permittee shall conduct an initial U.S. EPA Reference Method 9 (40 CFR Part 60, Appendix A-4) performance test and 40 CFR 60.11 to show compliance with the opacity limit.
- g. The permittee may use the alternatives to the reference methods and procedures specified in 40 CFR 60.675(e).
- h. For performance tests involving only U.S. EPA Reference Method 9 (40 CFR part 60 Appendix A-4) testing, the permittee may reduce the 30-day advance notification of performance test in 40 CFR 60.7(a)(6) and 60.8(d) to a 7-day advance notification [40 CFR 60.675(g)].
- i. If the initial performance test date falls during a seasonal shutdown (as defined in 40 CFR 60.671) of the affected facility, then with approval from the permitting authority, the permittee may postpone the initial performance test until no later than 60 calendar days after resuming operation of the affected facility [40 CFR 60.675(i)].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

- a. The permittee shall inspect the emissions control equipment weekly and make repairs to assure compliance [401 KAR 52:020, Section 10].
- b. The permittee shall check and record the pressure drop across the baghouses on a continuous basis, and comply with manufacture's operating requirements [401 KAR 52:020, Section 10].

5. Reporting and Recordkeeping Requirements:

- a. Records of the lime and/or limestone processed shall be maintained for emissions inventory purposes [401 KAR 52:020, Section 10].
- b. The permittee shall maintain results of all monitoring and performance tests [401 KAR 52:020, Section 10].
- c. See Section F for additional requirements.

6. Specific Reporting Requirements:

- a. The permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance, including reports of opacity observations made using U.S. EPA Reference Method 9 (40 CFR part 60, Appendix A-4) to demonstrate compliance [40 CFR 60.676(f)].
- b. See Section F for additional requirements.

7. Specific Control Equipment Operating Conditions:

- a. Control equipment shall be used to maintain compliance with applicable requirements and consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b. Records regarding maintenance of control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 27 - Unit 1 Cooling Tower

Description:

Generator Unit 01 Cooling Tower
Control Equipment: Drift Eliminators
Operating Rate: 3100 gallons/minute
Construction Commenced: 1972

Applicable Regulations:

401 KAR 63:010 Fugitive Emissions

1. Operating Limitations

- a. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following [401 KAR 63:010, Section 3]:
 - (1) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - (2) Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - (3) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations;
 - (4) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
 - (5) The maintenance of paved roadways in a clean condition;
 - (6) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water.
- b. No person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate [401 KAR 63:010, Section 3].
- c. To preclude applicability of 40 CFR 63, Subpart Q, the permittee shall not use chromium-based water treatment chemicals in the cooling towers. [40 CFR 63.400(a)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations

Not applicable.

3. Testing Requirements

Not applicable.

4. Specific Monitoring Requirements

Not applicable.

5. Specific Recordkeeping Requirements

The permittee shall maintain records of the manufacturer's design of the Drift Eliminators [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements

Refer to Section F for additional requirements.

7. Specific Control Equipment Operating Conditions

- a. The drift eliminators shall be operated and maintained consistent with manufacturer's specifications and standard operating practices to ensure the emission units are in compliance with applicable requirements. [401 KAR 50:055, Section 2].
- b. Refer to Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 28 - Unit 2 Cooling Tower

Description:

Generator Unit 02 Cooling Tower
Control Equipment: Drift Eliminators
Operating Rate: 5500 gallons/minute
Construction Commenced: 1976

Applicable Regulations:

401 KAR 63:010 Fugitive Emissions

1. Operating Limitations

- a. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following [401 KAR 63:010, Section 3]:
 - (1) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - (2) Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - (3) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations;
 - (4) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
 - (5) The maintenance of paved roadways in a clean condition;
 - (6) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water.
- b. No person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate [401 KAR 63:010, Section 3].
- c. To preclude applicability of 40 CFR 63, Subpart Q, the permittee shall not use chromium-based water treatment chemicals in the cooling towers. [40 CFR 63.400(a)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations

Not applicable.

3. Testing Requirements

Not applicable.

4. Specific Monitoring Requirements

Not applicable.

5. Specific Recordkeeping Requirements

The permittee shall maintain records of the manufacturer's design of the Drift Eliminators [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements

Refer to Section F for additional requirements.

7. Specific Control Equipment Operating Conditions

- a. The drift eliminators shall be operated and maintained consistent with manufacturer's specifications and standard operating practices to ensure the emission units are in compliance with applicable requirements. [401 KAR 50:055, Section 2].
- b. Refer to Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 29 - Unit 1 and Unit 2 Coal Piles

Description:

Unit 1 and Unit 2 Coal Storage Piles

Control Equipment: Dust Suppressant or Wet Suppression

Operating Rate: 1800 tons/hour

Construction Commenced: 1971

Applicable Regulations:

401 KAR 63:010 Fugitive Emissions

1. Operating Limitations

- a. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following [401 KAR 63:010, Section 3]:
 - (1) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - (2) Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - (3) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations;
 - (4) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
 - (5) The maintenance of paved roadways in a clean condition;
 - (6) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water.
- b. No person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate [401 KAR 63:010, Section 3].

2. Emission Limitations

Not applicable.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements

Not applicable.

4. Specific Monitoring Requirements

Not applicable.

5. Specific Recordkeeping Requirements

The permittee shall maintain records of the amount of coal received and processed [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements

Refer to Section F for additional requirements.

7. Specific Control Equipment Operating Conditions

- a. The control equipment (including, but not limited to, use of dust suppressant or wet suppression) shall be operated to maintain compliance with applicable requirements or consistent with the manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b. Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. Refer to Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 30 - Portable Backup Conveyor

Description:

Portable Conveyor System

Operating Rate: 500 tons/hour

Construction Commenced: 2011

Applicable Regulations:

401 KAR 63:010 Fugitive Emissions

1. Operating Limitations

- a. Maximum operation of the portable backup conveyor shall not exceed 2400 hours in any 12-consecutive months [Voluntary restriction per application received December 22, 2010]. Compliance shall be demonstrated by recordkeeping [401 KAR 52:020, Section 10].
- b. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following [401 KAR 63:010, Section 3]:
 - (1) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - (2) Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - (3) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations;
 - (4) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
 - (5) The maintenance of paved roadways in a clean condition;
 - (6) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water.
- c. No person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate [401 KAR 63:010, Section 3].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations

Not applicable.

3. Testing Requirements

Not applicable.

4. Specific Monitoring Requirements

The permittee shall monitor the amount of material received and processed [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements

The permittee shall maintain records of the dates and times of use of the emission unit, and records of the material received and processed [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements

Refer to Section F for additional requirements.

7. Specific Control Equipment Operating Conditions

Refer to Section E for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Emissions Unit 31 - Fire Pump****Description:**

Maximum Capacity: 660 HP
Commenced construction: 1976

Applicable Regulations:

40 CFR 63, Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engine

1. Operating Limitations:

- a. The emissions unit does not have to meet the requirements of 40 CFR 63, Subpart ZZZZ and 40 CFR 63, Subpart A as long as it meets the definition of emergency stationary RICE in 40 CFR 63.6675 and does not operate or is not contractually obligated to be available more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii) [40 CFR 63.6590(3)(b)(iii)]. Compliance shall be demonstrated by recordkeeping.
- b. *Emergency stationary RICE* means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) and (2) of this definition. All emergency stationary RICE shall comply with the requirements specified in 40 CFR 63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in 40 CFR 63.6640(f), then it is not considered to be an emergency stationary RICE under 40 CFR 63, Subpart ZZZZ [40 CFR 63.6675].
 - (1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.
 - (2) The stationary RICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in 40 CFR 63.6640(f), excluding 40 CFR 63.6640(f)(2)(ii) and (iii).

2. Emission Limitations:

Not applicable.

3. Testing Requirements:

Not applicable.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

Not applicable.

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the hours of operation and the purpose for operation of the fire pump.

6. Specific Reporting Requirements:

See Section F.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 32 - Dry Fly Ash Handling System (for Units 1 and 2)

Emission Point	Description
32-1	Dry Fly Ash Silo
32-2	Unit 1 Fly Ash Exhausters 1A & 1B (pneumatic conveying)
32-3	Unit 2 Fly Ash Exhausters 2A & 2B (pneumatic conveying)
Operating Rate:	52 tons/hour
Control:	Bin Vent Filter (0.005 grain/scfm) (integral control)
Construction Commenced:	March 2019

Applicable Regulations:

401 KAR 59:010, New Process Operations

1. Operating Limitations:

Not applicable

2. Emission Limitations:

- a) The permittee shall not cause to be discharged into the atmosphere from the emissions unit gases which exhibit twenty (20) percent opacity or greater [401 KAR 59:010].

Compliance Demonstration:

Refer to **4. Specific Monitoring Requirements: (a)**

- b) Particulate matter emissions shall not exceed the limit determined according to the following table, where P is the process rate in tons/hr and E is the maximum allowable emission rate in lbs/hr.

Process Rate (tons/hr)	Emission Limit (lbs/hr)
$P \leq 0.5$	$E = 2.34$
$0.5 < P \leq 30$	$E = 3.59P^{0.62}$
$P > 30$	$E = 17.31P^{0.16}$

[401 KAR 59:010, Section 3(2)]

Compliance Demonstration:

The unit is assumed in compliance with the particulate matter emission standard when the associated control equipment is in operation.

3. Testing Requirements:

- a) The permittee shall determine the opacity of emissions from each stack by U.S. EPA Reference Method 9 annually, or more frequently if requested by the Division for Air Quality [401 KAR 59:010].
- b) U.S. EPA Reference Method 5 or Method 17 shall be performed if required by the Division for Air Quality to determine particulate matter concentration [401 KAR 50:055, Section 2, 401 KAR 59:010, Section 4, 401 KAR 50:045].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

- a) The permittee shall perform a qualitative visual observation of emissions from each stack on a weekly basis and maintain a log of the observations. If emissions are visible, the permittee shall determine the opacity of emissions by U.S. EPA Reference Method 9 [401 KAR 52:020, Section 10].
- b) The pressure drop across bin vent filter shall be monitored and recorded on a continuous basis and compared with the manufacturer's specified operating range [401 KAR 52:020, Section 10].
- c) The permittee shall monitor the amount of ash processed in tons and hours of operation per month [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- a) The permittee shall maintain records of amount of ash processed [401 KAR 52:020, Section 10].
- b) The permittee shall maintain results of all compliance tests and calculations [401 KAR 52:020, Section 10].
 - i) The permittee shall record each week the date and time of the visible emissions monitoring. If a U.S. EPA Reference Method 9 is required, the opacity shall be recorded. In case of an exceedance, the permittee shall record the reason (if known) and the measures taken to minimize or eliminate the exceedance.
 - ii) Pressure drop across the bin vent filter shall be monitored through the use of a strip recorder or other continuous recording device. The permittee shall maintain strip recorder (or other continuous recording device) charts. In case of out-of-range indications, the permittee shall log the date and time of the excursion, the reason for the excursion (if known) and the measures taken to correct the excursion.

6. Specific Reporting Requirements:

Refer to **Section F – Monitoring, Recordkeeping, and Recording Requirements**, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions:

- a) The control equipment shall be maintained and operated to maintain compliance with permitted emission limitations and consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b) Records regarding maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c) Refer to **Section E – Source Control Equipment Requirements**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 33 - Dry Bottom Ash Handling System

Emission Point	Description
33-1	Dry Bottom Ash Silo
33-2	Unit 1 Bottom Ash Exhauster (pneumatic conveying)
33-3	Unit 2 Bottom Ash Exhauster (pneumatic conveying)
33-4	Common Spare Bottom Ash Exhauster (pneumatic conveying)
Operating Rate:	19 tons/hour
Control Device:	Bin Vent Filter (0.005 grain/scfm) (integral control)
Construction	March 2019 (April 2019 for 33-1)
Commenced:	

Applicable Regulations:

401 KAR 59:010, New Process Operations

1. Operating Limitations:

Not applicable

2. Emission Limitations:

- a) The permittee shall not emit any continuous emissions into the open air from a control device or stack which is equal to or greater than 20 percent opacity [401 KAR 59:010, Section 3(1)(a)].

Compliance Demonstration:

Refer to **4. Specific Monitoring Requirements:** (a)

- b) Particulate matter emissions shall not exceed the limit determined according to the following table, where P is the process rate in tons/hr and E is the maximum allowable emission rate in lbs/hr.

Process Rate (tons/hr)	Emission Limit (lbs/hr)
$P \leq 0.5$	$E = 2.34$
$0.5 < P \leq 30$	$E = 3.59P^{0.62}$

[401 KAR 59:010, Section 3(2)].

Compliance Demonstration:

The unit is assumed in compliance with the particulate matter emission standard when the associated control equipment is in operation.

3. Testing Requirements:

- a) The permittee shall determine the opacity of emissions from each stack by U.S. EPA Reference Method 9 annually, or more frequently if requested by the Division for Air Quality [401 KAR 59:010].
- b) U.S. EPA Reference Method 5 or Method 17 shall be performed if required by the Division for Air Quality to determine particulate matter concentration [401 KAR 50:055, Section 2, 401 KAR 59:010, Section 4, 401 KAR 50:045].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**4. Specific Monitoring Requirements:**

- a) The permittee shall perform a qualitative visual observation of emissions from each stack on a weekly basis and maintain a log of the observations. If emissions are visible, the permittee shall determine the opacity of emissions by U.S. EPA Reference Method 9 [401 KAR 52:020, Section 10].
- b) The pressure drop across the bin vent filter shall be monitored and recorded on a continuous basis and compared with the manufacturer's specified operating range [401 KAR 52:020, Section 10].
- c) The permittee shall monitor the amount of ash processed in tons and hours of operation per month [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- a) The permittee shall maintain records of amount of ash processed [401 KAR 52:020, Section 10].
- b) The permittee shall maintain results of all compliance tests and calculations [401 KAR 52:020, Section 10].
 - i) The permittee shall record each week the date and time of the visible emissions monitoring. If a U.S. EPA Reference Method 9 is required, the opacity shall be recorded. In case of an exceedance, the permittee shall record the reason (if known) and the measures taken to minimize or eliminate the exceedance.
 - ii) Pressure drop across the bin vent filter shall be monitored through the use of a strip recorder or other continuous recording device. The permittee shall maintain strip recorder (or other continuous recording device) charts. In case of out-of-range indications, the permittee shall log the date and time of the excursion, the reason for the excursion (if known) and the measures taken to correct the excursion.

6. Specific Reporting Requirements:

Refer to **Section F - Monitoring, Recordkeeping, and Reporting Requirements** for further requirements.

7. Specific Control Equipment Operating Conditions:

- a) The control equipment shall be maintained and operated to maintain compliance with permitted emission limitations and consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b) Records regarding maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c) Refer to **Section E – Source Control Equipment Operating Conditions** for additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 34 - Lime Storage (Two Silos) for Wastewater Treatment System

Description:

34-1: Wastewater Treatment Area Hydrated Lime Silo

34-2: Pond Area Hydrated Lime Silo

Operating Rate: 1.5 tons per hour

Control Device: Bin Vent Filter (0.005 grain/scfm) (integral control)

Commenced Construction: May (34-1) and June (34-2) 2019

Applicable Regulations:

401 KAR 59:010, New Process Operations

1. Operating Limitations:

Not applicable

2. Emission Limitations:

- a) The permittee shall not emit any continuous emissions into the open air from a control device or stack which is equal to or greater than 20 percent opacity [401 KAR 59:010, Section 3(1)(a)].

Compliance Demonstration:

Refer to 4. Specific Monitoring Requirements.

- b) Particulate matter emissions shall not exceed the limit determined according to the following table, where P is the process rate in tons/hr and E is the maximum allowable emission rate in lbs/hr.

Process Rate (tons/hr)	Emission Limit (lbs/hr)
$P \leq 0.5$	$E = 2.34$
$0.5 < P \leq 30$	$E = 3.59P^{0.62}$

[401 KAR 59:010, Section 3(2)].

Compliance Demonstration:

The unit is assumed in compliance with the particulate matter emission standard when the associated control equipment is in operation.

3. Testing Requirements:

Not applicable

4. Specific Monitoring Requirements:

The permittee shall perform a qualitative visual observation of the emissions from each stack on a weekly basis. If emissions are visible, the permittee shall determine the opacity by conducting a U.S. EPA Reference Method 9 [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

The permittee shall maintain a log of the qualitative visual observations performed, any visible emissions observed, and the opacity percentage result determined by U.S. EPA Reference Method 9 [401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

Refer to **Section F - Monitoring, Recordkeeping, and Reporting Requirements.**

7. Specific Control Equipment Operating Conditions:

- a) The control equipment shall be maintained and operated to maintain compliance with permitted emission limitations and consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055, Section 2].
- b) Records regarding maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c) Refer to **Section E – Source Control Equipment Operating Conditions.**

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 35 - Cooling Tower (for operation of EU01 and replacing EU27)

Description:

Circulation Rate: 161,000 gallons/minute
 Makeup Rate: 3,100 gallons/minute
 Drift Eliminator Rate: 0.0005%
 Commenced Construction: 2020

Applicable Regulation:

401 KAR 59:010, New process operation

1. Operating Limitations:

To preclude applicability of 40 CFR 63, Subpart Q, the permittee shall not use chromium-based water treatment chemicals in the cooling towers [40 CFR 63.400(a)].

2. Emission Limitations:

a) The permittee shall not emit any continuous emissions into the open air from a control device or stack which is equal to or greater than 20 percent opacity [401 KAR 59:010, Section 3(1)(a)].

b) Particulate matter emissions shall not exceed the limit determined according to the following table, where P is the process rate in tons/hr and E is the maximum allowable emission rate in lbs/hr.

Process Rate (tons/hr)	Emission Limit (lbs/hr)
$P \leq 0.5$	$E = 2.34$
$0.5 < P \leq 30$	$E = 3.59P^{0.62}$
$P > 30$	$E = 17.31P^{0.16}$

[401 KAR 59:010, Section 3(2)].

Compliance Demonstration:

The unit is assumed in compliance with the opacity and particulate matter emission standards when the associated control equipment is in operation.

3. Testing Requirements:

Not applicable

4. Specific Monitoring Requirements:

a) The permittee shall monitor the processing rate (gallons/hr) for each unit on a monthly basis [401 KAR 52:020, Section 10].

b) The permittee shall monitor total dissolved solids content of the circulating water on a monthly basis [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

a) The permittee shall maintain records of the processing rate (gallons/hr) on a monthly basis [401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b) The permittee shall maintain records of the manufacturer's design of the Drift Eliminators [401 KAR 52:020, Section 10].
- c) The permittee shall maintain records of the circulating water and total dissolved solids on a monthly basis [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

Refer to **Section F – Monitoring, Recordkeeping and Reporting Requirements.**

7. Specific Control Equipment Operating Conditions:

- a) The drift eliminators shall be operated and maintained to ensure compliance with applicable requirements consistent with manufacturer's specifications and standard operating practices to ensure the emission unit is in compliance with applicable requirements. [401 KAR 50:055, Section 2].
- b) Refer to **Section E - Source Control Equipment Requirements.**

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. Although these activities are designated as insignificant the permittee shall comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. Storage vessels containing petroleum or organic liquids with a capacity of less than 10,567 gallons, providing (a) the vapor pressure of the stored liquid is less than 1.5 psia at storage temperature, or (b) vessels greater than 580 gallons with stored liquids having greater than 1.5 psia vapor pressure are equipped with a permanent submerged fill pipe.	NA
2. Storage vessels containing inorganic aqueous liquids, except inorganic acids with boiling points below the maximum storage temperature at atmospheric pressure.	NA
3. #2 oil-fired space heaters or ovens rated at less than two million Btu per hour actual heat input, provided the maximum sulfur content is less than 0.5 percent by weight.	NA
4. Machining of metals, providing total solvent usage at the source for this activity does not exceed 60 gallons per month.	NA
5. Volatile organic compound and hazardous air pollutant storage containers, as follows: (a) Tanks, less than 1,000 gallons, and throughput less than 12,000 gallons per year; (b) Lubricating oils, hydraulic oils, machining oils, and machining fluids.	NA
6. Machining where an aqueous cutting coolant continuously floods machining interface.	NA
7. Degreasing operations, using less than 145 gallons per year.	NA
8. Maintenance equipment: brazing, cutting torches, soldering, welding	NA
9. Underground conveyors.	NA
10. Coal bunker and coal scale exhausts.	401 KAR 63:010
11. Blowdown (sight glass, boiler, compressor, pump, cooling tower).	NA

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

	<u>Description</u>	<u>Generally Applicable Regulation</u>
12.	Grinding and machining operations vented through fabric filters, scrubbers, mist eliminators, or electrostatic precipitators (e.g., deburring, buffing, polishing, abrasive blasting, pneumatic conveying, woodworking).	401 KAR 63:010
13.	Vents from ash transport systems not operated at positive pressure.	401 KAR 63:010
14.	Wastewater treatment (for stream less than 1 percent oil and grease).	NA
15.	Heat exchanger cleaning and repair.	NA
16.	Repair and maintenance of ESP, fabric filters, etc.	NA
17.	Any operation using aqueous solution (less than 1 percent VOC).	NA
18.	Laboratory fume hoods and vents used exclusively for chemical or physical analysis, or for "bench scale production" R&D facilities.	NA
19.	Machinery lubricant and waxes, including oils, greases or other lubricants applied as temporary protective coatings.	NA
20.	Purging of gas lines and vessels related to routine maintenance.	NA
21.	Equipment used to collect spills.	NA
22.	Ash pond and ash pond maintenance.	NA
23.	Lime Dosing System	401 KAR 59:010 401 KAR 63:010
24.	Off-specification used oil fuel burned for energy recovery.	NA
25.	Truck ash loadout	401 KAR 63:010
26.	Switch grass grinder	401 KAR 63:010
27.	Gypsum storage	401 KAR 63:010
28.	FuelSolve Additive or equivalent	NA
29.	Emissions Units 1, 2, 8, and 17 - DSI Unloading, Storage, and Handling, 4000 lb/hr maximum injection rate	401 KAR 59:010 401 KAR 63:010
30.	Emissions Units 1 and 2 – Fuel and FGD Additive for Hg control	NA

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

- | | | |
|-----|---|----------------------------------|
| 31. | Emission Units 32, 33 and 34 Associated Paved and Unpaved | 401 KAR 63:010 |
| 32. | 8000 Gallon HCl Storage Tank | 401 KAR 63:020 |
| 33. | Filter Press Truck Loadout (non-fugitive and fugitive) | 401 KAR 59:010
401 KAR 63:010 |
| 34. | 6000 Gallon Ferric Chloride Tank | 401 KAR 63:020 |
| 35. | Vacuum Truck Ash Handling Station (35,000 tons/year) | 401 KAR 63:010 |

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 10; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
2. Nitrogen oxides, sulfur dioxide, particulate matter, PM₁₀ (filterable and condensable), mercury, volatile organic compounds, carbon monoxide, hazardous air pollutants, sulfuric acid, and visible (opacity) emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.
3. The following units comprise the "EKPC System" and are subject to system-wide emission limits:
 - a. Unit 1 (124 MW)("Cooper 1") and Unit 2 (240 MW)("Cooper 2") located at the John Sherman Cooper Power Station near Somerset, Kentucky.
 - b. Unit 3 (80 MW)("Dale 3") and Unit 4 (80 MW)("Dale 4") (and shall exclude Units 1 and 2) located at the William C. Dale Power Station near Winchester, Kentucky.
 - c. Unit 1 (344 MW)("Spurlock 1") and Unit 2 (555 MW)("Spurlock 2") located at the Spurlock Power Station near Maysville, Kentucky [Consent Decree entered September 24, 2007, Section III].
4. Pursuant to the Consent Decree entered September 24, 2007, the permittee shall comply with the following System-Wide 12-Month Rolling Tonnage limitations for NO_x, which apply to all EKPC System units collectively:

For the 12-Month Period Commencing on the Date Specified Below, and Each 12-Month Period Thereafter:	System-wide 12-Month Rolling Tonnage Limitation for NO_x
January 1, 2008	11,500 tons
January 1, 2013	8,500 tons
January 1, 2015	8,000 tons

The system-wide annual emissions limits for NO_x shall apply prospectively from the specified date on which a 12-month period commences, that is compliance with the cap shall first be determined 12 months following the commencement date specified above, and shall end on the date that the subsequent system-wide limit, if any, takes effect. The permittee may not use NO_x Allowances to comply with these system-wide limitations [Consent Decree entered September 24, 2007, Section V].

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

5. Pursuant to the Consent Decree entered September 24, 2007, the permittee shall comply with the following System-Wide 12-Month Rolling Tonnage limitations for SO₂, which apply to all EKPC System units collectively:

For the 12-Month Period Commencing on the Date Specified Below, and Each 12-Month Period Thereafter:	System-Wide 12-Month Rolling Tonnage Limitation for SO₂
October 1, 2008	57,000 tons
July 1, 2011	40,000 tons
January 1, 2013	28,000 tons

Each of the system-wide annual emission limits for SO₂ shall apply prospectively from the specified date on which a 12-month period commences, that is compliance with the cap shall first be determined 12 months following the commencement date specified above, and shall end on the date that the subsequent system-wide limit, if any, takes effect. The permittee shall not use SO₂ allowances or credits to comply with these system-wide limitations [Consent Decree entered September 24, 2007, Section VI].

6. "System-Wide 12-Month Rolling Tonnage" means the sum of the tons of the pollutant in question emitted from the EKPC System units in the most recent complete month and the previous 11 months. A new System-Wide 12-Month Rolling Tonnage shall be calculated for each new complete month. The calculation of each System-Wide 12-Month Rolling Tonnage shall include the pollutants emitted during periods of startup, shutdown, and Malfunction within each calendar month, except as otherwise provided by the Force Majeure provisions of the Consent Decree entered September 24, 2007.
7. Performance standards, emissions limits, and other quantitative standards set by or under the Consent Decree shall be met to the number of significant digits in which the standard or limit is expressed. For example, an Emission Rate of 0.100 is not met if the actual Emission Rate is 0.101. The permittee shall round the fourth significant digit to the nearest third significant digit, or the third significant digit to the nearest second significant digit, depending upon whether the limit is expressed to three or two significant digits. For example, if an actual Emission Rate is 0.1004, that shall be reported as 0.100, and shall be in compliance with an Emission Rate of 0.100, and if an actual Emission Rate is 0.1005, that shall be reported as 0.101, and shall not be in compliance with an Emission Rate of 0.100. The permittee shall report data to the number of significant digits in which the standard or limit is expressed [Consent Decree entered September 24, 2007, paragraph 192].
8. Malfunction Events. If the permittee intends to exclude a period of Malfunction, as defined in paragraph 22 of the Consent Decree, from the calculation of any 30-Day Rolling Average Emission Rate, Combined 30-Day Rolling Average Emission Rate, or 30-Day

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Rolling Average SO₂ Removal Efficiency, the permittee shall notify the United States in writing as soon as practicable, but in no event later than 21 days following the date the Malfunction occurs.

- a. In this notice, the permittee shall describe the anticipated length of time that the Malfunction may persist, the cause or causes of the Malfunction, all measures taken or to be taken by the permittee to minimize the duration of the Malfunction, and the schedule by which the permittee proposes to implement those measures. The permittee shall adopt all reasonable measures to minimize the duration of such Malfunctions, and to prevent the recurrence of such Malfunctions in the future.
 - b. A Malfunction, as defined in paragraph 22 of the Consent Decree, does not constitute a Force Majeure Event unless the Malfunction also meets the definition of a Force Majeure Event, as provided in the Consent Decree. Conversely, a period of Malfunction may be excluded by the permittee from the calculations of emission rates and removal efficiencies, as allowed under this paragraph, regardless of whether the Malfunction constitutes a Force Majeure Event [Consent Decree entered September 24, 2007, paragraph 152].
 - c. "Malfunction" means malfunction as the term is defined under 40 CFR 60.2 [Consent Decree entered September 24, 2007, paragraph 22
9. FORCE MAJEURE, as defined by the Consent Decree entered September 24, 2007, paragraphs 143-151, states as follows:

"143. For purposes of this Consent Decree, a "Force Majeure Event" shall mean an event that has been or will be caused by circumstances beyond the control of EKPC, its contractors, or any entity controlled by EKPC that delays compliance with any provision of this Consent Decree or otherwise causes a violation of any provision of this Consent Decree despite EKPC's best efforts to fulfill the obligation. "Best efforts to fulfill the obligation" include using best efforts to anticipate any potential Force Majeure Event and to address the effects of any such event (a) as it is occurring and (b) after it has occurred, such that the delay or violation is minimized to the greatest extent possible.

144. Notice of Force Majeure Events. If any event occurs or has occurred that may delay compliance with or otherwise cause a violation of any obligation under this Consent Decree, as to which EKPC intends to assert a claim of Force Majeure, EKPC shall notify the United States in writing as soon as practicable, but in no event later than twenty-one (21) days following the date that the event occurred. In this notice, EKPC shall reference this Paragraph 144 of this Consent Decree and describe the anticipated length of time that the delay or violation may persist, the cause or causes of the delay or violation, all measures taken or to be taken by EKPC to prevent or minimize the delay or violation, the schedule by which EKPC proposes to implement those measures, and EKPC's rationale for attributing a delay or violation to a Force Majeure Event. EKPC shall adopt all

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

reasonable measures to avoid or minimize such delays or violations. EKPC shall be deemed to know of any circumstance which EKPC, its contractors, or any entity controlled by EKPC knew.

145. Failure to Give Notice. If EKPC fails to comply with the notice requirements of this Section, the Plaintiff may void EKPC's claim for Force Majeure as to the specific event for which EKPC has failed to comply with such notice requirement.

146. Plaintiff's Response. The Plaintiff shall notify EKPC in writing regarding EKPC's claim of Force Majeure within twenty (20) business days of receipt of the notice provided under Paragraph 144. If the Plaintiff agrees that a delay in performance has been or will be caused by a Force Majeure Event, the Parties shall stipulate to an extension of deadline(s) for performance of the affected compliance requirement(s) by a period equal to the delay actually caused by the event. In such circumstances, an appropriate modification shall be made pursuant to Section XXIII (Modification) of this Consent Decree.

147. Disagreement. If the Plaintiff does not accept EKPC's claim of Force Majeure, or if the Parties cannot agree on the length of the delay actually caused by the Force Majeure Event, the matter shall be resolved in accordance with Section XVI (Dispute Resolution) of this Consent Decree.

148. Burden of Proof. In any dispute regarding Force Majeure, EKPC shall bear the burden of proving that any delay in performance or any other violation of any requirement of this Consent Decree was caused by or will be caused by a Force Majeure Event. EKPC shall also bear the burden of proving that EKPC gave the notice required by this Section and the burden of proving the anticipated duration and extent of any delay(s) attributable to a Force Majeure Event. An extension of one compliance date based on a particular event may, but will not necessarily, result in an extension of a subsequent compliance date.

149. Events Excluded. Unanticipated or increased costs or expenses associated with the performance of EKPC's obligations under this Consent Decree shall not constitute a Force Majeure Event.

150. Potential Force Majeure Events. The Parties agree that, depending upon the circumstances related to an event and EKPC's response to such circumstances, the kinds of events listed below are among those that could qualify as Force Majeure Events within the meaning of this Section: construction, labor, or equipment delays; Malfunction of a Unit or emission control device; natural gas supply interruption; acts of God; acts of war or terrorism; and orders by a government official, government agency, or other regulatory body acting under and authorized by applicable law that directs EKPC to supply electricity in response to a system-wide (state-wide or regional) emergency. Depending upon the circumstances and EKPC's response to such circumstances, failure of a permitting authority or the Kentucky Public Service Commission to issue a necessary

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

permit or order with sufficient time for EKPC to achieve compliance with the requirements of this Consent Decree may constitute a Force Majeure Event where the failure of the authority to act is beyond the control of EKPC and EKPC has taken all steps available to it to obtain the necessary permit or order, including, but not limited to: submitting a complete application or request; responding to requests for additional information by the authority in a timely fashion; and accepting lawful terms and conditions after expeditiously exhausting any legal rights to appeal terms and conditions imposed by the authority.

151. As part of the resolution of any matter submitted to this Court under Section XVI (Dispute Resolution) of this Consent Decree regarding a claim of Force Majeure, the Parties by agreement, or this Court by order, may in appropriate circumstances extend or modify the schedule for completion of work under this Consent Decree to account for the delay in the work that occurred as a result of any delay agreed to by the United States or approved by the Court. EKPC shall be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the extended or modified schedule.

For the purposes of these provisions of the Consent Decree, “this Court” refers to the Court in which the Consent Decree was entered, the United States District Court Eastern District of Kentucky, Central Division, Lexington. “Plaintiff” is the United States of America, and the “Parties” means EKPC and the United States of America.

10. Consent Decree Definitions. The following definitions, contained in Section III of the Consent Decree entered September 24, 2007, shall apply to the provisions of the Consent Decree entered September 24, 2007 as set forth herein:

- a. A “30-Day Rolling Average Emission Rate” for a Unit or “Combined 30-Day Rolling Average Emission Rate” for Emission Units 1 and 2 shall be expressed as lb/MMBtu and calculated in accordance with the following procedure: first, sum the total pounds of the pollutant in question emitted from the Unit (in the case of a 30-Day Rolling Average Emission Rate) or Emission Units 1 and 2 (in the case of a Combined 30-Day Rolling Average Emission Rate) during an Operating Day and the previous 29 Operating Days; second, sum the total heat input to the Unit (in the case of a 30-Day Rolling Average Emission Rate) or Emission Units 1 and 2 (in the case of a Combined 30-Day Rolling Average Emission Rate) in MMBtu during the Operating Day and the previous 29 Operating Days; and third, divide the total number of pounds of the pollutant emitted during the 30 Operating Days by the total heat input during the 30 Operating Days. A new 30-Day Rolling Average Emission Rate shall be calculated for each new Operating Day. A new Combined 30-Day Rolling Average Emission Rate shall be calculated for each new Operating Day during which both Emission Units 1 and 2 fire Fossil Fuel. Each 30-Day Rolling Average Emission Rate and Combined 30-Day Rolling Average Emission Rate shall include all emissions that occur during all periods of start-up, shutdown and Malfunction within an Operating Day, except as follows:

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

- (1) For emissions of NO_x from Emission Unit 1 only, the permittee shall include all emissions commencing from the time Emission Unit 1 is synchronized with a utility electric distribution system through the time that Spurlock 1 ceases to combust fossil fuel and the fire is out in the boiler;
 - (2) Emissions of NO_x that occur during the fifth and subsequent Cold Start Up Period(s) that occur in any 30-day period shall be excluded from the calculation of the 30-Day Rolling Average Emission Rate and Combined 30-Day Rolling Average Emission Rate if inclusion of such emissions would result in a violation of any applicable 30-Day Rolling Average Emission Rate or Combined 30-Day Rolling Average Emission Rate, and if the permittee has installed, operated, and maintained the SCR in question in accordance with manufacturers' specifications and good engineering practices. A "Cold Start Up Period" occurs whenever there has been no fire in the boiler of a Unit (no combustion of any fossil fuel) for a period of six hours or more. The emissions to be excluded during the fifth and subsequent Cold Start Up Period(s) shall be the less of (a) those NO_x emissions emitted during the eight hour period commencing when the Unit is synchronized with a utility electric distribution system and concluding eight hours later or (b) those emitted prior to the time that the flue gas has achieved the minimum SCR operational temperature as specified by the catalyst manufacturer;
 - (3) For Cold Start Up Periods that occur at Spurlock 1 prior to April 1, 2008, emissions of NO_x that occur during the first and second Cold Start Up Period(s) that occur in any 30-day period shall also be excluded from the calculation of the 30-Day Rolling Average Emission Rate and Combined 30-Day Rolling Average Emission Rate under the same terms and conditions as provided in Subparagraph (a)(2) above; and
 - (4) Emissions that occur during a period of Malfunction shall be excluded from the calculation of the 30-Day Rolling Average Emission Rate and Combined 30-Day Rolling Average Emission Rate if the permittee provides notice of the Malfunction to US EPA and takes all reasonable measures to minimize the duration of such Malfunction and prevent the recurrence of such Malfunctions in the future, in accordance with paragraph 152 of the Consent Decree entered September 24, 2007.
- b. 30-Day Rolling Average SO₂ Removal Efficiency" means the percent reduction in the mass of SO₂ achieved by a Unit's pollution control device over a 30-Operating Day period. This percent reduction shall be calculated by subtracting the outlet 30-Day Rolling Average Emission Rate from the inlet 30-Day Rolling Average Emission Rate, dividing that difference by the inlet 30-Day Rolling Average Emission Rate, and then multiplying by 100. In the event the 30-Day Rolling Average SO₂ Removal Efficiency does not meet the requirements of the Consent Decree entered September

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

- 24, 2007, a 30-Day Rolling Average SO₂ emission rate of 0.100 lb/mmBTU or less shall satisfy the removal efficiency requirement. A new 30-Day Rolling Average SO₂ Removal Efficiency shall be calculated for each new Operating Day. The permittee may exclude Malfunctions from the calculation of a 30-Day Rolling Average SO₂ Removal Efficiency only to the extent that such Malfunctions have been excluded from the underlying 30-Day Rolling Average Emission Rates.
- c. “Emission Rate” means the number of pounds of pollutant emitted per million British thermal units of heat input (“lb/MMBtu”) or the average concentration of pollutant in parts per million by dry volume (“ppm”) corrected to 15% O₂, measured in accordance with the Consent Decree entered September 24, 2007.
 - d. “Fossil Fuel” means any hydrocarbon fuel, including coal, petroleum coke, petroleum oil, or natural gas.
 - e. “New Units” means the following coal-fired circulating fluidized bed (“CFB”) Units that commenced operation after the filing of the Complaint in this action and/or commence operation after entry of this Consent Decree and are owned all or in part by the permittee: Spurlock Unit 3 (305 MW), Spurlock Unit 4 (315 MW), Smith Unit 1 (315 MW) and Smith Unit 2 (315 MW).
 - f. “Operating Day” means any calendar day on which a Unit fires Fossil Fuel.
 - g. “Pollution Control Upgrade Analysis” means the technical study, analysis, review, and selection of control technology recommendations (including an emission rate or removal efficiency) identical to that which would be performed in connection with an application for a federal PSD permit, taking into account the characteristics of the existing facility.
 - h. “PM Control Device” means an electrostatic precipitator (“ESP”) or a baghouse or any other device which reduces emissions of particulate matter (PM).
 - i. “PM Emission Rate” means the number of pounds of PM emitted per million BTU of heat input (lb/MMBtu), as measured in annual (or biennial) stack tests in accordance with the reference method set forth in 40 C.F.R. Part 60, App. A, Method 5 (filterable portion only).
 - j. “SO₂ Allowance” means “allowance” as defined at 42 U.S.C. § 7651a(3): “an authorization, allocated to an affected unit by the Administrator [of US EPA] under [Subchapter IV of the Act], to emit, during or after a specified calendar year, one ton of sulfur dioxide.”
 - k. “Unit” means the coal pulverizer, stationary equipment that feeds coal to the boiler, the boiler that produces steam for the steam turbine, the steam turbine, the generator,

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

the equipment necessary to operate the generator, steam turbine and boiler, and all ancillary equipment, including pollution control equipment and systems necessary for the production of electricity.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shutdown, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
8. The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken shall be submitted to the Regional Office listed on the front of this permit. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement does not identify a specific time frame for reporting deviations, prompt reporting, as required by Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, shall be defined as follows:
 - a. For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
 - b. For emissions of any regulated air pollutant, excluding those listed in F.8.a., that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
 - c. All deviations from permit requirements, including those previously reported, shall be included in the semiannual report required by F.6.
9. Pursuant to 401 KAR 52:020, Title V permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- a. Identification of the term or condition;
- b. Compliance status of each term or condition of the permit;
- c. Whether compliance was continuous or intermittent;
- d. The method used for determining the compliance status for the source, currently and over the reporting period.
- e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
- f. The certification shall be submitted by January 30th of each year. Annual compliance certifications shall be sent to the following addresses:

Division for Air Quality
Ashland Regional Office
1550 Wolohan Drive, Suite 1
Ashland, KY 41102-8942

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-8960

- 10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within 30 days of the date the Kentucky Emissions Inventory System (KYEIS) emissions survey is mailed to the permittee.
- 11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

- a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020, Section 3(1)(b), and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
 - (2) The Cabinet or the United States Environmental Protection Agency (U. S. EPA) determines that the permit shall be revised or revoked to assure compliance with the applicable requirements;
 - (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
 - (4) New requirements become applicable to a source subject to the Acid Rain Program.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

SECTION G - GENERAL PROVISIONS (CONTINUED)

- d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:020, Section 3(1)(c)].
- f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].
- g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- i. All emission limitations and standards contained in this permit shall be enforceable as a practical matter. All emission limitations and standards contained in this permit are enforceable by the U.S. EPA and citizens except for those specifically identified in this permit as state-origin requirements. [Section 1a-15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3) 2.].
- l. This permit does not convey property rights or exclusive privileges [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION G - GENERAL PROVISIONS (CONTINUED)

- m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.
- n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3) 4.].
- o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3) 1.].
- p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.
- q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
 - (1) Applicable requirements that are included and specifically identified in this permit; and
 - (2) Non-applicable requirements expressly identified in this permit.
- r. Within 60 days of issuance of the renewal permit, the permittee shall submit a current copy of its startup and shutdown plans to the Division pursuant to Condition B.2.i. for Emission Unit 08 and Condition B.2.o for Emission Unit 17. The plans will be subject the Division's review and comment. The startup/shutdown plans will be accessible for public review at the Division's central office and the regional office.

2. Permit Expiration and Reapplication Requirements

- a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six (6) months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
- b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination

SECTION G - GENERAL PROVISIONS (CONTINUED)

has been made on any application, by whatever deadline the Division sets [401 KAR 52:020, Section 8(2)].

3. Permit Revisions

- a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
- b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

4. Construction, Startup, and Initial Compliance Demonstration Requirements

Construction authorized by this permit V-15-063 R1 for the following Emission Units:

Emission Unit:	Emission Point:	Emission Summary:
EU32	EU32-1	Fly Ash Handling System (Fly Ash Silo)
	EU32-2	Fly Ash Handling System (Fly Ash Pneumatic Conveying Exhauster 1A & 1B)
	EU32-3	Fly Ash Handling System (Fly Ash Pneumatic Conveying Exhauster 2A & 2B)
EU33	EU33-1	Bottom Ash Handling System (Bottom Ash Silo)
	EU33-2	Bottom Ash Handling System (Bottom Ash Exhausts, 2 and 1 spare)
EU34	EU34-1	Lime Storage (WWT Area Silo)
	EU34-2	Lime Storage (Pond Area Silo)
EU35	EU35	Unit 1 Cooling Tower (Replacing EU27)

- (1) Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
- (2) Within thirty (30) days following commencement of construction and within fifteen (15) days following startup and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the

SECTION G - GENERAL PROVISIONS (CONTINUED)

Regional Office listed on the front of this permit in writing, with a copy to the Field Office Branch, notification of the following:

- (a) The date when construction commenced.
 - (b) The date of startup of the affected facilities listed in this permit.
 - (c) The date when the maximum production rate specified in the permit application was achieved.
- (3) Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
- (4) For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. This permit does not grant operational or final permit approval until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.
- (5) This permit shall allow time for the initial startup, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial startup of such facilities, the permittee shall conduct a performance test on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. These performance tests shall also be conducted in accordance with General Provisions G(d)7 of this permit and the permittee shall furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test
- (6) Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.
- (7) Pursuant to 401 KAR 50:045 Section 5 in order to demonstrate that a source is capable of complying with a standard at all times, a performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average

SECTION G - GENERAL PROVISIONS (CONTINUED)

production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.

5. Testing Requirements

- a. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least thirty (30) days prior to the test.
- b. Pursuant to 401 KAR 50:045, Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
- c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

- a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
- b. The permittee shall comply with all applicable requirements and conditions of the Acid Rain Permit and the Phase II permit application (including the Phase II NOx compliance plan and averaging plan, if applicable) incorporated into the Title V permit issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

SECTION G - GENERAL PROVISIONS (CONTINUED)7. Emergency Provisions

- a. Pursuant to 401 KAR 52:020, Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - (1) An emergency occurred and the permittee can identify the cause of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - (4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
 - (5) This requirement does not relieve the source of other local, state or federal notification requirements.
- b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
- c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

8. Ozone Depleting Substances

- a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166

SECTION G - GENERAL PROVISIONS (CONTINUED)

- (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
- (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
 - b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

9. Risk Management Provisions

- a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to U.S. EPA using the RMP* eSubmit software.
- b. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION H – ALTERNATE OPERATING SCENARIOS

Not applicable.

SECTION I – COMPLIANCE SCHEDULE

1. By September 24, 2008, the permittee shall demonstrate that Emissions Units 1 and 2 can achieve and maintain a PM Emission Rate of no greater than 0.030 lb/MMBtu in accordance with paragraph 87 of the Consent Decree. In the alternative and in lieu of demonstrating compliance with the PM Emission Rate applicable under paragraph 82 of the Consent Decree, the permittee may elect to undertake an upgrade of the existing PM emissions control equipment for either or both Emissions Units 1 and 2 based on a PM Pollution Control Upgrade Analysis for that Unit. The preparation, submission, and implementation of such PM Pollution Control Upgrade Analysis shall be undertaken and completed in accordance with the compliance schedules and procedures specified in paragraph 84 of the Consent Decree [Consent Decree entered September 24, 2007, paragraph 82].
2. Demonstration and Compliance with PM Emission Limit. If the permittee demonstrates by the applicable date set forth in paragraph 82 of the Consent Decree that a Unit can achieve and maintain a PM Emission Rate of no greater than 0.030 lb/MMBtu, the permittee shall thereafter operate that Unit to maximize PM emission reductions, consistent with the Unit's operational design and safety requirements, and shall achieve and maintain a PM Emission Rate no greater than 0.030 lb/MMBtu [Consent Decree entered September 24, 2007, paragraph 83].
3. PM Emission Control Upgrade. For each EKPC System Unit for which the permittee does not elect to meet a PM Emission Rate of 0.030 lb/MMBtu, the permittee shall prepare, submit, and implement a PM Pollution Control Upgrade Analysis in accordance with paragraph 84 of the Consent Decree entered September 24, 2007. Such PM Pollution Control Upgrade Analysis shall include proposed upgrades to the PM pollution control device and a proposed alternate PM Emission Rate that the Unit shall meet upon completion of such upgrade. For each Unit for which such a PM Pollution Control Upgrade Analysis is required, the permittee shall deliver such PM Pollution Control Upgrade Analysis to US EPA for approval pursuant to Section XIII (Review and Approval of Submittals) of the Consent Decree within 180 days of the date on which the particular EKPC System Unit is unable to make the demonstration required by paragraph 83 of the Consent Decree [Consent Decree entered September 24, 2007, paragraph 84].
 - a. In conducting the PM Pollution Control Upgrade Analysis for any Unit, the permittee need not consider any of the following PM control measures:
 - (1) the complete replacement of the existing ESP with a new ESP, FGD, or baghouse, or
 - (2) the upgrade of the existing ESP controls through the installation of a supplemental PM Control Device, through the refurbishment of existing PM Control Devices, or through other measures, if the costs of such upgrade are equal to or greater than the costs of a replacement ESP, FGD, or baghouse (on a total dollar-per-ton-of-pollutant-removed basis).

SECTION I – COMPLIANCE SCHEDULE (CONTINUED)

With each PM Pollution Control Upgrade Analysis delivered to US EPA, the permittee shall simultaneously deliver all documents that support or were considered in preparing such PM Pollution Control Upgrade Analysis. The permittee shall retain a qualified contractor to assist in the performance and completion of each PM Pollution Control Upgrade Analysis.

- b. Beginning one year after US EPA approval of the recommendation(s) made in a PM Pollution Control Upgrade Analysis for a Unit, the permittee shall not operate that Unit unless all equipment called for in the recommendation(s) of the Pollution Control Upgrade Analysis has been installed. An installation period longer than one year may be allowed if the permittee makes such a request in the PM Pollution Control Upgrade Analysis and US EPA determines such additional time is necessary due to factors such as the magnitude of the PM control project or the need to address reliability concerns that could result from multiple EKPC System Unit outages. Upon installation of all equipment recommended under an approved PM Pollution Control Upgrade Analysis, the permittee shall operate such equipment in compliance with the recommendation(s) of the approved PM Pollution Control Upgrade Analysis, including compliance with any PM Emission Rate specified by the recommendation(s).
4. Beginning no later than April 16, 2013, the permittee shall comply with the provisions of 40 CFR 63, Subpart UUUUU, National Emission Standards for Hazardous Air Pollutants from Coal and Oil-Fired Electric Utility Steam Generating Units that apply to Emissions Unit 17, except that the permittee may request an extension of this compliance date for the rule's startup and shutdown work practice standards and the tune-up work practice standards due to the filing with the US EPA of its Petition for Partial Reconsideration of the National Emission Standards for Hazardous Air Pollutants from Coal and Oil-Fired Electric Utility Steam Generating Units [Agreed Order entered May 14, 2012, paragraph 26.]

SECTION J – PHASE II ACID RAIN PERMIT

ACID RAIN PERMIT CONTENTS

1. Statement of Basis
2. SO₂ allowances allocated under this permit and NO_x requirements for each affected unit.
3. Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.
4. The permit application submitted for this source. The owners and operators of the source shall comply with the standard requirements and special provisions set forth in the Phase II Application.
5. Summary of Actions
6. Consent Decree Requirements

Statement of Basis:

Statutory and Regulatory Authorities: The Energy and Environment Cabinet, Division of Air Quality issues this permit pursuant to 401 KAR 52:020, Title V permits, 401 KAR 52:060, Acid rain permits, and 40 CFR 76 and in accordance to KRS 224.10-100 and Titles IV and V of the Clean Air Act (Emission Units 01, 02, 08, 17).

SECTION J – PHASE II ACID RAIN PERMIT (CONTINUED)

Plant Name: Hugh L. Spurlock Station
Affected Unit: Emissions Unit 01

• **SO₂ Allowance Allocations and NO_x Requirements for the affected unit:**

SO ₂ Allowances	Year				
	2013	2014	2015	2016	2017
Tables 2, 3 or 4 of 40 CFR Part 73	9,841*	9,841*	9,841*	9,841*	9,841*

NO _x Requirements	
NO_x Limits	<p>Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves a NO_x standard emissions limitation compliance plan for Emission Unit 1. The annual average NO_x emission rate for each year, determined using the methods and procedures in 40 CFR Part 76, shall not exceed the applicable emission limitation, under 40 CFR 76.5(a)(2), of 0.50 lb/MMBtu for dry bottom wall-fired boilers.</p> <p>This unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.</p>

* The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR Part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO₂ allowance allocations identified in this permit (See 40 CFR 72.84).

SECTION J – PHASE II ACID RAIN PERMIT (CONTINUED)

Plant Name: Hugh L. Spurlock Station
Affected Unit: Emissions Unit 02

• **SO₂ Allowance Allocations and NO_x Requirements for the affected unit:**

SO ₂ Allowances	Year				
	2013	2014	2015	2016	2017
Tables 2, 3 or 4 of 40 CFR Part 73	16,621*	16,621*	16,621*	16,621*	16,621*

NO _x Requirements	
NO_x Limits	<p>Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves a NO_x standard emissions limitation compliance plan for Emission Unit 2. The annual average NO_x emission rate for each year, determined using the methods and procedures in 40 CFR Part 76, shall not exceed the applicable limitation, under 40 CFR 76.7(a)(1), of 0.40 lb/MMBtu for tangentially-fired Group 1, Phase II boilers.</p> <p>In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.</p>

* The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR Part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO₂ allowance allocations identified in this permit (See 40 CFR 72.84).

SECTION J – PHASE II ACID RAIN PERMIT (CONTINUED)

Plant Name: Hugh L. Spurlock Station
Affected Units: Emission Unit 08 (Unit 3) and Emission Unit 17 (Unit 4)

- **SO₂ Allowance Allocations and NO_x Requirements for the affected unit:**

SO ₂ Allowances	Year				
	2013	2014	2015	2016	2017
Tables 2, 3 or 4 of 40 CFR Part 73	0*	0*	0*	0*	0*

NO _x Requirements	
NO_x Limits	N/A**

* The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR Part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO₂ allowance allocations identified in this permit (See 40 CFR 72.84).

** This unit currently does not have applicable NO_x limits set by 40 CFR Part 76.

SECTION J – PHASE II ACID RAIN PERMIT (CONTINUED)

- **Comments, Notes, and Justifications:**

Emission Units 08 (Unit 3) and 17 (Unit 4) were constructed after the SO₂ allocation date; therefore these units will have no SO₂ allowances allocated by U.S. EPA and shall obtain allowances.

Emission Units 08 (Unit 3) and 17 (Unit 4) do not have applicable NO_x limits set by 40 CFR Part 76.

- **Permit Application:**

The Phase II Permit Application is part of this permit and the source shall comply with the standard requirements and special provisions set forth in the Phase II Application.

- **Summary of Actions:**

Previous Actions:

1. Draft Phase II Permit (# AR-96-11) including SO₂ compliance plan was issued for public comment on September 19, 1996.
2. Final Phase II Permit (# AR-96-11) including SO₂ compliance plan was issued on December 11, 1996.
3. Draft Phase II Permit (# A-98-010) was issued with the revised SO₂ allowance allocations and NO_x emissions standard for public comment on December 23, 1998.
4. Final Phase II Permit (# A-98-010) was issued with the 1998 revised SO₂ allowance allocations and NO_x emission standard on June 1, 1999.
5. Final Phase II permit was issued with the renewed Title V permit on July 31, 2006.

Present Action:

Phase II permit is being issued with the renewed Title V permit.

- **Consent Decree Requirements:**

For each calendar year beginning with calendar year 2008, the permittee shall surrender to US EPA, or transfer to a non-profit third party selected by the permittee for surrender, SO₂ Allowances allocated to EKPC System units that are surplus to its Clean Air Act SO₂ Allowance-holding requirements for the EKPC System Units and New Units, collectively, for that year. The permittee shall make such surrender annually, within 45

SECTION J – PHASE II ACID RAIN PERMIT (CONTINUED)

days of the permittee's receipt from US EPA of the Annual Deduction Reports for SO₂. Any surrender need not include the specific SO₂ Allowances that were allocated to EKPC System Units, so long as the permittee surrenders SO₂ Allowances that are from the same year or earlier year and that are equal to the number required to be surrendered under paragraph 72 of the Consent Decree entered September 24, 2007 [Consent Decree entered September 24, 2007, paragraph 72.]

The requirements in the Consent Decree entered September 24, 2007 pertaining to the permittee's use and retirement of SO₂ Allowances are permanent injunctions not subject to any termination of the Consent Decree entered September 24, 2007 in whole or in part [Consent Decree entered September 24, 2007, paragraph 75].

SECTION K – CLEAN AIR INTERSTATE RULE (CAIR)**1. Statement of Basis**

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100, the Kentucky Energy and Environmental Cabinet issues this permit pursuant to 401 KAR 52:020, Title V permits, 401 KAR 51:210, CAIR NO_x annual trading program, 401 KAR 51:220, CAIR NO_x ozone season trading program, and 401 KAR 51:230, CAIR SO₂ trading program.

2. CAIR Application

The CAIR application for four electrical generating units was submitted to the Division and received on December 22, 2010. Requirements contained in that application are hereby incorporated into and made part of this CAIR Permit. Pursuant to 401 KAR 52:020, Section 3, the source shall operate in compliance with those requirements.

3. Comments, notes, justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.

Affected units are one (1) 3500MMBtu/hr dry-bottom wall-fired boiler, one (1) 5600 MMBtu/hr tangentially fired boiler, one (1) 2500 MMBtu/hr pulverized coal-fired CFB boiler and one (1) 2800 MMBtu/hr pulverized coal-fired CFB boiler. Each unit has a capacity to generate 25 megawatts or more of electricity, which is offered for sale. The units use coal as a fuel source, and are authorized as base load electric generating units.

4. Summary of Actions

The CAIR Permit is being issued as part of the Title V permit for this source. Public, affected state, and U.S. EPA review will follow procedures specified in 401 KAR 52:100.

A December 2008 court decision kept the requirements of CAIR in place temporarily but directed EPA to issue a new rule to implement Clean Air Act requirements concerning the transport of air pollution across state boundaries. On July 6, 2011, the U.S. EPA finalized the Cross-State Air Pollution Rule (CSAPR). On December 30, 2011, CSAPR was stayed prior to implementation. On April 29, 2014, the U.S. Supreme Court issued an opinion reversing an August 21, 2012 D.C. Circuit decision that had vacated CSAPR. Following the remand of the case to the D.C. Circuit, EPA requested that the court lift the CSAPR stay and toll the CSAPR compliance deadlines by three years. On October 23, 2014, the D.C. Circuit granted EPA's request. CSAPR Phase I implementation is now in place and replaces requirements under EPA's 2005 Clean Air Interstate Rule.

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The TR subject unit(s), and the unit-specific monitoring provisions, at this source are identified in the following table(s). These unit(s) are subject to the requirements for the TR NO_x Annual Trading Program, TR NO_x Ozone Season Trading Program, and TR SO₂ Group 1 Trading Program.

Unit ID: EU 01, coal-fired EGU					
Parameter	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR part 75, subpart B (for SO ₂ monitoring) and 40 CFR part 75, subpart H (for NO _x monitoring)	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR part 75, appendix E	Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19	EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E
SO ₂	X				
NO _x	X				
Heat input	X				

Unit ID: EU 02, coal-fired EGU					
Parameter	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR part 75, subpart B (for SO ₂ monitoring) and 40 CFR part 75, subpart H (for NO _x monitoring)	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR part 75, appendix E	Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19	EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E
SO ₂	X				
NO _x	X				
Heat input	X				

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Unit ID: EU 08, coal-fired EGU					
Parameter	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR part 75, subpart B (for SO ₂ monitoring) and 40 CFR part 75, subpart H (for NO _x monitoring)	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR part 75, appendix E	Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19	EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E
SO ₂	X				
NO _x	X				
Heat input	X				

Unit ID: EU 17, coal-fired EGU					
Parameter	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR part 75, subpart B (for SO ₂ monitoring) and 40 CFR part 75, subpart H (for NO _x monitoring)	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR part 75, appendix E	Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19	EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E
SO ₂	X				
NO _x	X				
Heat input	X				

1. The above description of the monitoring used by a unit does not change, create an exemption from, or otherwise affect the monitoring, recordkeeping, and reporting requirements applicable to the unit under 40 CFR 97.430 through 97.435 (TR NO_x Annual Trading Program), 97.530 through 97.535 (TR NO_x Ozone Season Trading Program), and 97.630

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through 97.635 (TR SO₂ Group 1 Trading Program). The monitoring, recordkeeping and reporting requirements applicable to each unit are included below in the standard conditions for the applicable TR trading programs.

2. Owners and operators shall submit to the Administrator a monitoring plan for each unit in accordance with 40 CFR 75.53, 75.62 and 75.73, as applicable. The monitoring plan for each unit is available at the EPA's website at <http://www.epa.gov/airmarkets/emissions/monitoringplans.html>.
3. Owners and operators that want to use an alternative monitoring system shall submit to the Administrator a petition requesting approval of the alternative monitoring system in accordance with 40 CFR part 75, subpart E and 40 CFR 75.66 and 97.435 (TR NO_x Annual Trading Program), 97.535 (TR NO_x Ozone Season Trading Program), and/or 97.635 (TR SO₂ Group 1 Trading Program). The Administrator's response approving or disapproving any petition for an alternative monitoring system is available on the EPA's website at <http://www.epa.gov/airmarkets/emissions/petitions.html>.
4. Owners and operators that want to use an alternative to any monitoring, recordkeeping, or reporting requirement under 40 CFR 97.430 through 97.434 (TR NO_x Annual Trading Program), 97.530 through 97.534 (TR NO_x Ozone Season Trading Program), and/or 97.630 through 97.634 (TR SO₂ Group 1 Trading Program) shall submit to the Administrator a petition requesting approval of the alternative in accordance with 40 CFR 75.66 and 97.435 (TR NO_x Annual Trading Program), 97.535 (TR NO_x Ozone Season Trading Program), and/or 97.635 (TR SO₂ Group 1 Trading Program). The Administrator's response approving or disapproving any petition for an alternative to a monitoring, recordkeeping, or reporting requirement is available on the EPA's website at <http://www.epa.gov/airmarkets/emissions/petitions.html>.
5. The descriptions of monitoring applicable to the unit included above meet the requirement of 40 CFR 97.430 through 97.434 (TR NO_x Annual Trading Program), 97.530 through 97.534 (TR NO_x Ozone Season Trading Program), and 97.630 through 97.634 (TR SO₂ Group 1 Trading Program), and therefore minor permit modification procedures, in accordance with 40 CFR 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B), may be used to add or change this unit's monitoring system description.

TR NO_x Annual Trading Program requirements (40 CFR 97.406)**a) Designated representative requirements.**

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.413 through 97.418.

b) Emissions monitoring, reporting, and recordkeeping requirements.

- 1) The owners and operators, and the designated representative, of each TR NO_x Annual source and each TR NO_x Annual unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.430 (general requirements,

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including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.431 (initial monitoring system certification and recertification procedures), 97.432 (monitoring system out-of-control periods), 97.433 (notifications concerning monitoring), 97.434 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.435 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

- 2) The emissions data determined in accordance with 40 CFR 97.430 through 97.435 shall be used to calculate allocations of TR NO_x Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the TR NO_x Annual emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.430 through 97.435 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

c) NO_x emissions requirements.

- 1) TR NO_x Annual emissions limitation.
 - i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO_x Annual source and each TR NO_x Annual unit at the source shall hold, in the source's compliance account, TR NO_x Annual allowances available for deduction for such control period under 40 CFR 97.424(a) in an amount not less than the tons of total NO_x emissions for such control period from all TR NO_x Annual units at the source.
 - ii) If total NO_x emissions during a control period in a given year from the TR NO_x Annual units at a TR NO_x Annual source are in excess of the TR NO_x Annual emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - A) The owners and operators of the source and each TR NO_x Annual unit at the source shall hold the TR NO_x Annual allowances required for deduction under 40 CFR 97.424(d); and
 - B) The owners and operators of the source and each TR NO_x Annual unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAA and the Clean Air Act.
- 2) TR NO_x Annual assurance provisions.
 - i) If total NO_x emissions during a control period in a given year from all TR NO_x Annual units at TR NO_x Annual sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO_x Annual allowances available for deduction for such control period under 40 CFR 97.425(a) in an amount equal to two

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- times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.425(b), of multiplying— (A) The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and (B) The amount by which total NO_x emissions from all TR NO_x Annual units at TR NO_x Annual sources in the state for such control period exceed the state assurance level.
- ii) The owners and operators shall hold the TR NO_x Annual allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
 - iii) Total NO_x emissions from all TR NO_x Annual units at TR NO_x Annual sources in the State during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the state NO_x Annual trading budget under 40 CFR 97.410(a) and the state's variability limit under 40 CFR 97.410(b).
 - iv) It shall not be a violation of 40 CFR part 97, subpart AAAAAA or of the Clean Air Act if total NO_x emissions from all TR NO_x Annual units at TR NO_x Annual sources in the State during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the TR NO_x Annual units at TR NO_x Annual sources in the state during a control period exceeds the common designated representative's assurance level.
 - v) To the extent the owners and operators fail to hold TR NO_x Annual allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - B) Each TR NO_x Annual allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAAA and the Clean Air Act.
- 3) Compliance periods.
 - i) A TR NO_x Annual unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.
 - ii) A TR NO_x Annual unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.
 - 4) Vintage of allowances held for compliance.

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- i) A TR NO_x Annual allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO_x Annual allowance that was allocated for such control period or a control period in a prior year.
 - ii) A TR NO_x Annual allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO_x Annual allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
- 5) Allowance Management System requirements. Each TR NO_x Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart AAAAA.
- 6) Limited authorization. A TR NO_x Annual allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:
- i) Such authorization shall only be used in accordance with the TR NO_x Annual Trading Program; and
 - ii) Notwithstanding any other provision of 40 CFR part 97, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
- 7) Property right. A TR NO_x Annual allowance does not constitute a property right.
- d) Title V permit revision requirements.**
- 1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO_x Annual allowances in accordance with 40 CFR part 97, subpart AAAAA.
 - 2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.430 through 97.435, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.406(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).
- e) Additional recordkeeping and reporting requirements.**
- 1) Unless otherwise provided, the owners and operators of each TR NO_x Annual source and each TR NO_x Annual unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
 - i) The certificate of representation under 40 CFR 97.416 for the designated representative for the source and each TR NO_x Annual unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and

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documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.416 changing the designated representative.

- ii) All emissions monitoring information, in accordance with 40 CFR part 97, subpart AAAAA.
 - iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR NO_x Annual Trading Program.
- 2) The designated representative of a TR NO_x Annual source and each TR NO_x Annual unit at the source shall make all submissions required under the TR NO_x Annual Trading Program, except as provided in 40 CFR 97.418. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.
- f) Liability.**
- 1) Any provision of the TR NO_x Annual Trading Program that applies to a TR NO_x Annual source or the designated representative of a TR NO_x Annual source shall also apply to the owners and operators of such source and of the TR NO_x Annual units at the source.
 - 2) Any provision of the TR NO_x Annual Trading Program that applies to a TR NO_x Annual unit or the designated representative of a TR NO_x Annual unit shall also apply to the owners and operators of such unit.
- g) Effect on other authorities.**
- No provision of the TR NO_x Annual Trading Program or exemption under 40 CFR 97.405 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR NO_x Annual source or TR NO_x Annual unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR)**TR NO_x Ozone Season Trading Program Requirements (40 CFR 97.506)****a) Designated representative requirements.**

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.513 through 97.518.

b) Emissions monitoring, reporting, and recordkeeping requirements.

- a) The owners and operators, and the designated representative, of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.530 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.531 (initial monitoring system certification and recertification procedures), 97.532 (monitoring system out-of-control periods), 97.533 (notifications concerning monitoring), 97.534 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.535 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
- b) The emissions data determined in accordance with 40 CFR 97.530 through 97.535 shall be used to calculate allocations of TR NO_x Ozone Season allowances under 40 CFR 97.511(a)(2) and (b) and 97.512 and to determine compliance with the TR NO_x Ozone Season emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.530 through 97.535 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

c) NO_x emissions requirements.

- 1) TR NO_x Ozone Season emissions limitation.
 - i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, TR NO_x Ozone Season allowances available for deduction for such control period under 40 CFR 97.524(a) in an amount not less than the tons of total NO_x emissions for such control period from all TR NO_x Ozone Season units at the source.
 - ii) If total NO_x emissions during a control period in a given year from the TR NO_x Ozone Season units at a TR NO_x Ozone Season source are in excess of the TR NO_x Ozone Season emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - A) The owners and operators of the source and each TR NO_x Ozone Season unit at the source shall hold the TR NO_x Ozone Season allowances required for deduction under 40 CFR 97.524(d); and
 - B) The owners and operators of the source and each TR NO_x Ozone Season unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBB and the Clean Air Act.
- 2) TR NO_x Ozone Season assurance provisions.

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- i) If total NO_x emissions during a control period in a given year from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO_x Ozone Season allowances available for deduction for such control period under 40 CFR 97.525(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.525(b), of multiplying—
 - A) The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and
 - B) The amount by which total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state for such control period exceed the state assurance level.
- ii) The owners and operators shall hold the TR NO_x Ozone Season allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
- iii) Total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the State NO_x Ozone Season trading budget under 40 CFR 97.510(a) and the state's variability limit under 40 CFR 97.510(b).
- iv) It shall not be a violation of 40 CFR part 97, subpart BBBBBB or of the Clean Air Act if total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state during a control period exceeds the common designated representative's assurance level.
- v) To the extent the owners and operators fail to hold TR NO_x Ozone Season allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - B) Each TR NO_x Ozone Season allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above

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and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBB and the Clean Air Act.

- 3) Compliance periods.
 - i) A TR NO_x Ozone Season unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of May 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter.
 - ii) A TR NO_x Ozone Season unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter.
 - 4) Vintage of allowances held for compliance.
 - i) A TR NO_x Ozone Season allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO_x Ozone Season allowance that was allocated for such control period or a control period in a prior year.
 - ii) A TR NO_x Ozone Season allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO_x Ozone Season allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
 - 5) Allowance Management System requirements. Each TR NO_x Ozone Season allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart BBBBB.
 - 6) Limited authorization. A TR NO_x Ozone Season allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:
 - i) Such authorization shall only be used in accordance with the TR NO_x Ozone Season Trading Program; and
 - ii) Notwithstanding any other provision of 40 CFR part 97, subpart BBBBB, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
 - 7) Property right. A TR NO_x Ozone Season allowance does not constitute a property right.
- d) Title V permit revision requirements.**
- 1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO_x Ozone Season allowances in accordance with 40 CFR part 97, subpart BBBBB.
 - 2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.530 through 97.535, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be

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added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.506(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

e) Additional recordkeeping and reporting requirements.

- 1) Unless otherwise provided, the owners and operators of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
 - i) The certificate of representation under 40 CFR 97.516 for the designated representative for the source and each TR NO_x Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.516 changing the designated representative.
 - ii) All emissions monitoring information, in accordance with 40 CFR part 97, subpart BBBBB.
 - iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR NO_x Ozone Season Trading Program.
- 2) The designated representative of a TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall make all submissions required under the TR NO_x Ozone Season Trading Program, except as provided in 40 CFR 97.518. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

f) Liability.

- 1) Any provision of the TR NO_x Ozone Season Trading Program that applies to a TR NO_x Ozone Season source or the designated representative of a TR NO_x Ozone Season source shall also apply to the owners and operators of such source and of the TR NO_x Ozone Season units at the source.
- 2) Any provision of the TR NO_x Ozone Season Trading Program that applies to a TR NO_x Ozone Season unit or the designated representative of a TR NO_x Ozone Season unit shall also apply to the owners and operators of such unit.

g) Effect on other authorities.

No provision of the TR NO_x Ozone Season Trading Program or exemption under 40 CFR 97.505 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR NO_x Ozone Season source or TR NO_x Ozone Season unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR)**TR SO₂ Group 1 Trading Program requirements (40 CFR 97.606)****a) Designated representative requirements.**

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.613 through 97.618.

b) Emissions monitoring, reporting, and recordkeeping requirements.

- 1) The owners and operators, and the designated representative, of each TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.630 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.631 (initial monitoring system certification and recertification procedures), 97.632 (monitoring system out-of-control periods), 97.633 (notifications concerning monitoring), 97.634 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.635 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
- 2) The emissions data determined in accordance with 40 CFR 97.630 through 97.635 shall be used to calculate allocations of TR SO₂ Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the TR SO₂ Group 1 emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.630 through 97.635 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

c) SO₂ emissions requirements.

- 1) TR SO₂ Group 1 emissions limitation.
 - i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall hold, in the source's compliance account, TR SO₂ Group 1 allowances available for deduction for such control period under 40 CFR 97.624(a) in an amount not less than the tons of total SO₂ emissions for such control period from all TR SO₂ Group 1 units at the source.
 - ii) If total SO₂ emissions during a control period in a given year from the TR SO₂ Group 1 units at a TR SO₂ Group 1 source are in excess of the TR SO₂ Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - A) The owners and operators of the source and each TR SO₂ Group 1 unit at the source shall hold the TR SO₂ Group 1 allowances required for deduction under 40 CFR 97.624(d); and
 - B) The owners and operators of the source and each TR SO₂ Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation 40 CFR part 97, subpart CCCCC and the Clean Air Act.
- 2) TR SO₂ Group 1 assurance provisions.

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- i) If total SO₂ emissions during a control period in a given year from all TR SO₂ Group 1 units at TR SO₂ Group 1 sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such SO₂ emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR SO₂ Group 1 allowances available for deduction for such control period under 40 CFR 97.625(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.625(b), of multiplying—
 - A) The quotient of the amount by which the common designated representative's share of such SO₂ emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such SO₂ emissions exceeds the respective common designated representative's assurance level; and
 - B) The amount by which total SO₂ emissions from all TR SO₂ Group 1 units at TR SO₂ Group 1 sources in the state for such control period exceed the state assurance level.
- ii) The owners and operators shall hold the TR SO₂ Group 1 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
- iii) Total SO₂ emissions from all TR SO₂ Group 1 units at TR SO₂ Group 1 sources in the state during a control period in a given year exceed the state assurance level if such total SO₂ emissions exceed the sum, for such control period, of the state SO₂ Group 1 trading budget under 40 CFR 97.610(a) and the state's variability limit under 40 CFR 97.610(b).
- iv) It shall not be a violation of 40 CFR part 97, subpart CCCCC or of the Clean Air Act if total SO₂ emissions from all TR SO₂ Group 1 units at TR SO₂ Group 1 sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total SO₂ emissions from the TR SO₂ Group 1 units at TR SO₂ Group 1 sources in the state during a control period exceeds the common designated representative's assurance level.
- v) To the extent the owners and operators fail to hold TR SO₂ Group 1 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - B) Each TR SO₂ Group 1 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart CCCCC and the Clean Air Act.

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- 3) Compliance periods.
 - i) A TR SO₂ Group 1 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter.
 - ii) A TR SO₂ Group 1 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter.
 - 4) Vintage of allowances held for compliance.
 - i) A TR SO₂ Group 1 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR SO₂ Group 1 allowance that was allocated for such control period or a control period in a prior year.
 - ii) A TR SO₂ Group 1 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR SO₂ Group 1 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
 - 5) Allowance Management System requirements. Each TR SO₂ Group 1 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart CCCCC.
 - 6) Limited authorization. A TR SO₂ Group 1 allowance is a limited authorization to emit one ton of SO₂ during the control period in one year. Such authorization is limited in its use and duration as follows:
 - i) Such authorization shall only be used in accordance with the TR SO₂ Group 1 Trading Program; and
 - ii) Notwithstanding any other provision of 40 CFR part 97, subpart CCCCC, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
 - 7) Property right. A TR SO₂ Group 1 allowance does not constitute a property right.
- d) Title V permit revision requirements.**
- 1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR SO₂ Group 1 allowances in accordance with 40 CFR part 97, subpart CCCCC.
 - 2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.630 through 97.635, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR part 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E), Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.606(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR)**e) Additional recordkeeping and reporting requirements.**

- 1) Unless otherwise provided, the owners and operators of each TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
 - i) The certificate of representation under 40 CFR 97.616 for the designated representative for the source and each TR SO₂ Group 1 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.616 changing the designated representative.
 - ii) All emissions monitoring information, in accordance with 40 CFR part 97, subpart CCCCC.
 - iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR SO₂ Group 1 Trading Program.
- 2) The designated representative of a TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall make all submissions required under the TR SO₂ Group 1 Trading Program, except as provided in 40 CFR 97.618. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

f) Liability.

- 1) Any provision of the TR SO₂ Group 1 Trading Program that applies to a TR SO₂ Group 1 source or the designated representative of a TR SO₂ Group 1 source shall also apply to the owners and operators of such source and of the TR SO₂ Group 1 units at the source.
- 2) Any provision of the TR SO₂ Group 1 Trading Program that applies to a TR SO₂ Group 1 unit or the designated representative of a TR SO₂ Group 1 unit shall also apply to the owners and operators of such unit.

g) Effect on other authorities.

No provision of the TR SO₂ Group 1 Trading Program or exemption under 40 CFR 97.605 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR SO₂ Group 1 source or TR SO₂ Group 1 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.