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ENERGY AND ENVIRONMENT CABINET

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300 SOWER BOULEVARD FRANKFORT, KENTUCKY 40601 Telephone: 502-564-3350 Telefax: 502-564-7484

January 6, 2017

Ms. Heather McTeer Toney Regional Administrator U.S. EPA, Region 4 61 Forsyth Street, SW Atlanta, Georgia 30303-3104

Re: Data Requirements Rule for the 2010 1-Hour Sulfur Dioxide (SO₂) Primary National Ambient Air Quality Standard (NAAQS)

Dear Ms. Toney:

On behalf of the Commonwealth of Kentucky, the Energy and Environmental Cabinet (Cabinet) respectfully submits the attached documentation to comply with the United States Environmental Protection Agency's (EPA's) Data Requirements Rule (DRR) for the 2010 1-hour Sulfur Dioxide (SO₂) Primary National Ambient Air Quality Standard (NAAQS).¹ In a letter dated January 7, 2016, the Cabinet identified fifteen (15) sources located in Kentucky that actually emitted more than 2,000 tons of SO₂ in 2014.² On March 22, 2016, EPA responded and added an additional source to Kentucky's list of applicable sources under the DRR.

Through this submittal, the Cabinet is providing air dispersion modeling analyses to characterize the air quality around nine (9) sources subject to the DRR, including one source that established a federally-enforceable limit through a title V permit revision. Additionally, the Cabinet is submitting documentation relating to the shutdowns of coal-fired electric generating units at three (3) sources, the ambient monitoring information to determine concentrations from three (3) sources, and a title V permit that establishes a federally-enforceable emission limitation of less than 2,000 tons per year at one (1) facility. The Cabinet is providing the enclosed DVD containing the modeling characterizations and attachments relating to emission limitations and shutdowns.

Modeling Requirements [40 CFR 51.1203(d)]

Pursuant to the requirements of 40 CFR 51.1203(d), the Cabinet submits the air dispersion modeling protocols and analyses characterizing the air quality surrounding the sources



¹ Published in the Federal Register, August 21, 2015 (80 FR 51052).

² As required by 40 CFR 51.1203 (80 FR 51087)

Ms. McTeer Toney January 6, 2017 Page 2 of 3

identified in Table 1. Peak hourly concentrations from each source were modeled and evaluated for compliance with the 2010 SO₂ NAAQS. The results of air dispersion modeling analyses predict 1-hour SO₂ concentrations of the areas to be less than the 2010 SO₂ NAAQS. The Cabinet provided the modeling protocols to EPA Region 4, received technical feedback, and amended the characterizations to concur with EPA's response. These technical demonstrations further support Kentucky's designation recommendations submitted on June 2, 2011. Therefore, the Cabinet requests that EPA designate the areas surrounding each facility as "attainment."

| AFS # | Facility | Modeling Protocol Received | Transmitted to EPA | EPA Response |
|--------------|---------------------------------|-------------------------------|-----------------------|--------------|
| 21-015-00029 | Duke Energy - East Bend Station | 3/4/2016 | 3/4/2016 | 4/20/2016 |
| 21-041-00010 | KU – Ghent | 12/21/2015 | 2/10/2016 | 4/1/2016 |
| 21-059-00027 | OMU – Elmer Smith Station | 1/6/2016 | 2/10/2016 | 4/1/2016 |
| 21-091-00004 | Century Aluminum – Hawesville | 1/7/2016 | 2/10/2016 | 4/1/2016 |
| 21-145-00006 | TVA – Shawnee | 12/21/2015 | 2/10/2016 | 4/1/2016 |
| 21-177-00006 | TVA – Paradise | 12/21/2015 | 2/10/2016 | 4/1/2016 |
| 21-161-00009 | EKPC – HL Spurlock | 12/28/2015 | 2/10/2016 | 4/1/2016 |
| 21-223-00002 | LG&E – Trimble | 12/21/2015 | 2/10/2016 | 4/1/2016 |
| 21-183-00069 | Big Rivers – DB Wilson | 6/17/2015 | 7/8/2015 | 8/6/2015 |

Table 1: Sources Modeled [40 CFR 51.1203(d)]

Federally-enforceable requirement to limit SO₂ emissions to under 2,000 tons per year [40 CFR 51.1203 (e)]

Effective June 17, 2016, the Cabinet issued a final title V permit (V-12-019 R2) to East Kentucky Power Cooperative for operation of the John S. Cooper Power Station (AFS# 21-199-00005). The permit includes a federally-enforceable source-wide emissions limit of 1,800 tons SO₂ per year, on a 12-month rolling basis. The issuance of the permit followed all applicable regulatory provisions required to issue a title V permit in the Commonwealth of Kentucky. The Cabinet submits that the adoption of federally-enforceable emissions limits in the permit, in lieu of characterizing the area through modeling or monitoring, satisfies the requirements of 40 CFR 51.1203(e)(1) for this area. The Cabinet requests that the area surrounding this facility be designated as attainment.

Enforceable emission limits providing for attainment (40 CFR 51.1204)

Effective June 20, 2016, the Cabinet issued a final title V permit (V-16-013) to Big Rivers, Inc. for the operation of the DB Wilson plant (AFS#21-183-00069). The title V permit, V-16-013, establishes federally-enforceable SO₂ emission limitation for unit W1 to support a demonstration of attainment of the 2010 SO₂ NAAQS for the surrounding area. Air quality modeling and analysis demonstrate that all modeling receptors in the area will not violate the SO₂ NAAQS, when taking into account the updated allowable emission limits contained in the final title V permit. The Cabinet determines that this demonstration of attainment precludes further "ongoing data requirements" as required in 40 CFR 51.1205. The Cabinet requests that the area surrounding this source be designated as attainment.

Document that the applicable sources in the area have permanently shut down by January 13, 2017 [40 CFR 51.1203(e)(2)]

The sources identified in Table 2 have permanently shut down all coal-fired units; thus reducing their "potential-to-emit" SO_2 emissions below the regulatory thresholds. Documentation from the individual sources is included in this submittal and demonstrates that these areas comply the requirements of 40 CFR 51.1203 (e)(2). The Cabinet requests that the areas surrounding these facilities be designated as attainment.

| AFS # | Source | Permit Number | Public Notice | Final |
|--------------|----------------------------------|---------------------|---------------------|---------------------|
| 21-111-00126 | LG&E – Cane Run | 175-00-TV | 8/30/2014 | 11/18/2014 |
| 21-127-00003 | KY Power CO – Big Sandy Plant | V-15-013 | 6/10/2015 | 10/16/2015 |
| 21-177-00001 | KU – Green River Station | Shutdown | Shutdown | Shutdown |
| | | Notification Letter | Notification Letter | Notification Letter |

| Table 2: Sources with permanently shut | down coal-fired units [40 CFR 51.1203 (e)(2)] |
|--|---|
|--|---|

Monitoring Requirements [40 CFR 51.1203(c)]

The Cabinet will characterize and determine the ambient concentrations of SO₂ emissions from Century Aluminum – Sebree (AFS# 21-101-00029) and Big Rivers – Sebree (Reid, HMP&L, Green; AFS #s 21-233-00001, 21-233-00052) by collecting data with ambient air monitors in accordance with 40 CFR Parts 50, 53, and 58. The final SO₂ monitoring site selection was submitted to EPA for approval on June 27, 2016, and included in the Annual Ambient Air Monitoring Network plan. On August 4, 2016, EPA approved the monitoring site location to be used to satisfy the requirements of 40 CFR 51.1203(c) and granted approval of the Quality Assurance Project Plan (QAPP) on December 23, 2016. The Cabinet understands that this monitor must be operational by January 1, 2017, and remain in operation, unless the monitor has been approved for shut down by the EPA Regional Administrator pursuant to 40 CFR 51.1203(c)(3) or 40 CFR 58.14.

In conclusion, the Cabinet is providing the enclosed information to satisfy the air agency requirements section 51.1203 of the DRR. Further, the Cabinet requests that EPA determine that the areas are attaining the 2010 1-hour SO₂ NAAQS for the areas that characterized and determined to be in compliance with the NAAQS. If you have any questions or concerns, please contact Mr. Sean Alteri, Director of the Kentucky Division for Air Quality, at (502) 782-6541 or Sean.Alteri@ky.gov.

Sincerely,

Charles Afrarely

Charles G. Snavely Secretary

DATA REQUIREMENTS RULE SUBMITTAL FOR THE 2010 1-HOUR SULFUR DIOXIDE (SO₂) PRIMARY NATIONAL AMBIENT AIR QUALITY STANDARD



Prepared by: Kentucky Energy and Environment Cabinet Division for Air Quality

January 6, 2017

Attachment A

Compliance Demonstration Method – Modeling [40 CFR 51.1203(d)]

Attachment B

Compliance Demonstration Method – Permanent Shutdown [40 CFR 51.1203(e)(2)]



220 West Main Street P.O. Box 32010 Louisville, KY 40232



JUL 06 2015 A.P.C.D. ADMINISTRATION

<u>CERTIFIED MAIL</u> <u>CERTIFIED NUMBER 7006 2760 0005 5304 0548</u> <u>RETURN RECEIPT REQUESTED</u>

July 1, 2015

Mr. Paul Aud Environmental Manager Air Pollution Control District 850 Barret Avenue Louisville, Kentucky 40204

Subject: Notification of normal operations for Emission Units U15, U16, and U18 and the shutdown of Emission Units U4, U5, U6, U7, U8, U10, IA1, IA2, and U14 at the Cane Run Generating Station

Dear Mr. Aud:

As required by Emission U15 specific condition S3(h) and S4(a)(vi) in the Title V Permit 175-00-TV (R2) for the Cane Run Generating Station; Louisville Gas & Electric Company (LG&E), hereby submits notification of normal operations for Emission Units U15, U16, and U18 and the dates for the shutdown of Emission Units U4, U5, U6, U7, U8, U10, IA1, IA2, and U14. After shutdown of U7, the remaining material will be processed as part of the landfill and ash pond closure plans.

| Emission Unit | Date of Normal Operations |
|---------------------------|---------------------------|
| UIS – NGCC Unit | 6/19/2015 |
| U16 – NG Aux Boiler | 2/3/2015 |
| U18 – Emergency Generator | 6/19/2015 |

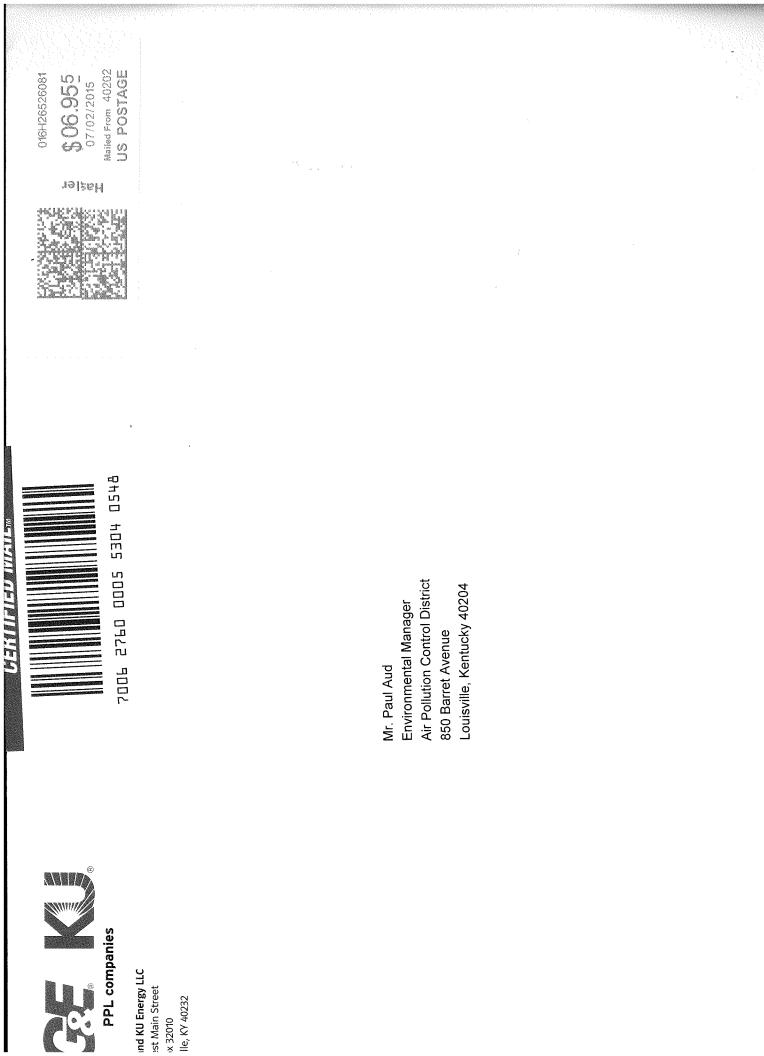
| Emission Unit | Date of Shutdown |
|---------------------------|------------------|
| U4 | 6/30/2015 |
| U5 | 6/30/2015 |
| U6 | 3/31/2015 |
| U7 - 4/5 SPP | 6/30/2015 |
| U8 - Unit 6 Soda Ash Silo | 6/30/2015 |
| U10 – Coal handling units | 6/30/2015 |
| IA1 – Gas storage tank | 6/30/2015 |
| IA2 – Parts Washer | 6/30/2015 |
| U14 – Porta batch units | 6/30/2015 |

If you have questions regarding this information or need any further information, please feel free to contact me by phone at (502) 627-2791 or by e-mail at Brandan.burfict@lge-ku.com.

Sincerely,

Brandan Burfict Environmental Engineer Environmental Affairs Department

Cc: Mr. D. Tummonds (Cane Run Generating Station) File Copy





A unit of American Electric Power



Kentucky Power Company/Big Sandy Plant 23000 Hwy 23, Louisa, Ky 41230 Steve Sargent/Environmental Coordinator <u>gsargent // aep.com</u> (606) 686-1463

February 22, 2016

Mr. Rick Shewekah Kentucky Department for Environmental Protection Division for Air Quality 200 Fair Oaks Lane, 1st Flr. Frankfort, Kentucky 40601

> Re: Big Sandy Plant Title V Permit, #V-15-013

Dear Mr. Shewekah,

Kentucky Power Company (dba American Electric Power, "AEP") received a renewal Title V permit for our Big Sandy plant in October 2015, According to 401 KAR 50:045 and Section B.3.a. of this permit, there is an obligation to submit a particulate performance test schedule within 6 months of permit issuance, and conduct the test within one year of permit.issuance.

Emission Unit 01 is currently being converted to a gas-fired unit and has been out of service since November 2015. When the unit comes back online, it will no longer utilize coal as a fuel source and will be subject to the requirements of Section H of the Title V permit. As a result, the unit will no longer be subject to the requirement in Section B.3.a.

This letter is to confirm that no particulate test or test schedule is required for Emissions Unit 01 due to the timing of the outage and its conversion to a gas-fired unit. Similarly, this condition does not apply to Emissions Unit 02 as a result of its retirement in June of 2015.

If you have any concerns or questions on this interpretation, please contact Jeff Clark at (614) 716-2899.

Sincerely

Aaron Sink Plant Manager, Big Sandy Plant

c: Mr Jonathan Barker, Ashland Region Office

Mr. Rick Shewekah, KDAQ Title V Permit, #V-15-013 February 22, 2016 Page 2

bcc. John Hendricks/Jeff Clark – 22nd floor Aaron Sink/ Steve Sargent – Big Sandy Janet J. Henry – 29th floor

Address for cc:

Mr. Jonathan Barker

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

h internal/jdc/bigsandy/Title V Renewal 2011/Particulate Test Exemption Cover Letter doc

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: | American Electric Power |
|------------------|-------------------------------|
| Mailing Address: | 1 Riverside Plaza, 22nd Floor |
| | Columbus, Ohio 43215 |

Source Name: Mailing Address: Big Sandy Power Plant 23000 Highway 23 Louisa, Kentucky 41230

Source Location: 23000 Highway 23, Louisa, Kentucky

Permit: Agency Interest: Activity: Review Type: Source ID: V-15-013 R1 2610 APE20160004 Title V / Synthetic Minor, Operating 21-127-00003

Regional Office:

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

County:

ApplicationComplete Date:February 9, 2015Issuance Date:October 16, 2015Revision Date:November 11, 2016Expiration Date:October 16, 2020

Sean alteri

Sean Alteri, Director Division for Air Quality

Version 10/16/13

TABLE OF CONTENTS

| SECTION | ISSUANCE | PAGE |
|--|-------------|------|
| A. PERMIT AUTHORIZATION | Renewal | 1 |
| B. EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS | Revision #1 | 2 |
| C. INSIGNIFICANT ACTIVITIES | Renewal | 8 |
| D. SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS | Renewal | 10 |
| E. SOURCE CONTROL EQUIPMENT REQUIREMENTS | Renewal | 13 |
| F. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS | Renewal | 14 |
| G. GENERAL PROVISIONS | Revision #1 | 17 |
| H. ALTERNATE OPERATING SCENARIOS | Revision #1 | 23 |
| I. COMPLIANCE SCHEDULE | Renewal | 23 |
| J. ACID RAIN | Renewal | 24 |
| K. CLEAN AIR INTERSTATE RULE (CAIR) | Renewal | 31 |
| L. CROSS-STATE AIR POLLUTION RULE (CSAPR) | Revision #1 | 32 |

| | Permit type | Activity# | Complete Date | Issuance Date | Summary of Action |
|-------------|----------------|-------------|------------------|------------------|--|
| V-15-013 | Renewal | APE20140003 | 2/9/2015 | 10/16/2015 | EU 01 conversion to natural gas |
| V-15-013 R1 | Revision | APE20160004 | 6/8/2016 | 11/11/2016 | Remove decommissioned units; correct Part 75 language for Unit 1 |

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.

BSU 1 (Unit 1) Indirect Heat Exchanger

Description:

Emission Unit 01

| Natural gas-fired, wall-fired, dry bottom boiler | | | | |
|--|---|--|--|--|
| Construction Commenced: | 1963 | | | |
| Modified: | September 2015 | | | |
| Rated Capacity: | 2,653 MMBtu/hr | | | |
| Primary Fuel: | Natural Gas | | | |
| Controls: | Overfire air, low nitrogen oxides burners | | | |

<u>Applicable Regulations:</u> 401 KAR 51:160, NO_x requirements for large utility and industrial boilers

- 401 KAR 52:060, Acid rain permits
- 401 KAR 61:015, Existing indirect heat exchangers
- 40 CFR 52, Subpart S, Kentucky (BART SIP)
- 40 CFR Parts 72 to 78, Federal Acid Rain Provisions
- 40 CFR 97, Subpart AAAAA, TR NO_x Annual Trading Program (see Section L)
- 40 CFR 97, Subpart BBBBB, TR NO_x Ozone Season Trading Program (see Section L)

40 CFR 97, Subpart CCCCC, TR SO₂ Group 1 Trading Program (see Section L)

1. **Operating Limitations:**

a. To preclude the applicability of 401 KAR 51:017, the fuel heat input to the unit shall not exceed 14,191,200 MMBtu/yr based on a rolling twelve (12) month total.

Compliance Demonstration Method:

Compliance shall be demonstrated by monitoring and maintaining records of fuel heat input as required in paragraph f. **4.** <u>Specific Monitoring Requirements</u> and paragraph d. **5.** <u>Specific Recordkeeping Requirements</u>.

b. To preclude the applicability of 401 KAR 51:017, Emission Unit 01 at the Big Sandy Plant will no longer utilize coal or #2 fuel oil and burn only natural gas as a fuel.

2. <u>Emission Limitations:</u>

- a. Particulate matter emissions shall not exceed 0.24 lb/MMBtu, based on a three (3)-hour average [401 KAR 61:015, Section 4(4)].
- b. Emissions shall not exceed 40 percent opacity based on a six (6)-minute average, except:

- i. That a maximum of 60 percent opacity shall be permissible for not more than one six (6)-minute period in any sixty (60) consecutive minutes, and;
- ii. 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. [401 KAR 61:015, Section 4(3)].
- c. Sulfur dioxide emissions shall not exceed 4.0 lb/MMBtu, based on a twenty-four (24)-hour average [401 KAR 61:015, Section 5(1)].

Compliance Demonstration Method:

The unit is considered to be in compliance with the allowable particulate matter, opacity, and SO_2 emission limitations while burning natural gas.

- d. See Section D., <u>Source Emission Limitations and Testing Requirements</u>, for sourcewide emission limitations on NO_x and SO₂.
- e. Pursuant to the Kentucky BART SIP, by April 30, 2017, emissions of H_2SO_4 shall not exceed 101.0 lbs/hr.

Compliance Demonstration Method:

The unit is considered to be in compliance with the allowable H_2SO_4 emission limitation while burning natural gas.

3. <u>Testing Requirements:</u>

Testing shall be conducted as required by the Cabinet in accordance with 401 KAR 50:045, Section 4.

4. Specific Monitoring Requirements:

- a. Continuous emission monitoring systems (CEMS) shall be installed, calibrated, maintained, and operated for measuring nitrogen oxides emissions and either oxygen or carbon dioxide emissions. CEMS shall meet the specifications of 401 KAR 61:005, Section 3 and Performance Specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A [40 CFR 75.10, 401 KAR 50:050, Section 1].
- b. The rate of each fuel burned shall be measured daily and recorded. The heating value 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 daily and recorded [401 KAR 61:015, Section 6(3)].

- c. The Division may provide a temporary exemption from the monitoring and reporting requirements of 401 KAR 61:005, Section 3, for the continuous monitoring system during any period of monitoring system malfunction, provided that the permittee shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as possible [401 KAR 61:005, Section 3(5)].
- d. To meet the monitoring requirement for sulfur dioxide, the permittee shall utilize a certified gas flow meter, gross calorific value, and a sulfur gas sample to determine SO_2 emissions in accordance with 40 CFR 75.11(d)(2) and Appendix D to 40 CFR Part 75.
- e. The permittee shall monitor the duration of startup [401 KAR 52:020, Section 10].
- f. The permittee shall monitor the monthly and the twelve (12) month rolling total fuel heat input (MMBtu) and natural gas usage (MMscf) [401 KAR 52:020, Section 10].

5. <u>Specific Recordkeeping Requirements:</u>

- a. Records shall be kept in accordance with 401 KAR 61:005, Section 3(15) and 401 KAR 61:015, Section 6, the permittee shall maintain a file of all information reported in the quarterly summaries, records shall be kept for a period of five years [401 KAR 52:020, Section 10].
- b. The permittee shall maintain records of the following:
 - i. data collected either by the continuous monitoring systems or as necessary to convert monitoring data to the units of the applicable standard;
 - ii. the results of all compliance tests;
 - iii. the records of the fuel analysis;
 - iv. the rate of fuel burned on a daily basis;
 - v. the heating value on a weekly basis;
 - vi. the average electrical output and the minimum and maximum hourly generation rate on a daily basis;
 - vii. when no excess emissions have occurred and when the continuous monitoring system(s) have not been inoperative, repaired, or adjusted; and
 - viii. the monthly and twelve (12) month rolling total natural gas usage. [401 KAR 52:020, Section 10]
- c. The permittee shall record the duration of startup [401 KAR 52:020, Section 10].

- d. The permittee shall maintain records of the monthly and twelve (12) month rolling total fuel heat input (MMBtu) and natural gas usage (MMscf) [401 KAR 52:020, Section 10].
- e. The permittee shall retain, and instruct their contractors and agents to preserve, all nonidentical copies of all records and documents (including records and documents in electronic form) now in their or their contractors' or agents' possession or control (with the exception of their contractors' copies of field drawings and specifications), and that directly relate to the permittee's performance of their obligations under the combined Consent Decrees until six (6) years following completion of performance of such obligations. This record retention requirement shall apply regardless of any corporate document retention policy to the contrary [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 185].

6. <u>Specific Reporting Requirements:</u>

- a. The permittee shall report any month in which the twelve (12)-month rolling total average fuel sulfur content exceeds 1.75 lb/MMBtu [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 90].
- b. See Section F Monitoring, Recordkeeping, and Reporting Requirements.

Emissions Unit 03: Gas Line Heater

Description:

| Gas-fired heater utilized to h | eat natural gas supplied to combustion units at the plant |
|--------------------------------|---|
| Construction Commenced: | Projected September 2015 |
| Rated Capacity: | 1.6 MMBtu/hr |
| Primary Fuel: | Natural Gas |

Applicable Regulations: 401 KAR 59:015, New indirect heat exchangers

1. **Operating Limitations:**

To preclude the applicability of 401 KAR 51:017, the fuel heat input to the unit shall not exceed 8,410 MMBtu/yr on a rolling twelve (12) month total.

Compliance Demonstration Method:

Compliance shall be demonstrated by monitoring and maintaining records of fuel heat input to the unit as required in paragraphs 4. <u>Specific Monitoring Requirements</u> and 5. <u>Specific Recordkeeping Requirements</u>.

2. <u>Emission Limitations:</u>

- a. Particulate matter emissions shall not exceed 0.10 lb/MMBtu, based on a three (3)-hour average [401 KAR 59:015, Section 4(1)(b)].
- b. Emissions shall not exceed 20 percent opacity based on a six (6)-minute average, except:
 - i. That a maximum of 40 percent opacity shall be permissible for not more than one six (6)-minute period in any sixty (60) consecutive minutes, and;
 - ii. 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. [401 KAR 59:015, Section 4(2)]
- c. Sulfur dioxide emissions shall not exceed 0.8 lb/MMBtu, based on a three (3)-hour average [401 KAR 59:015, Section 5(1)(b)1.].

Compliance Demonstration Method:

The unit is considered to be in compliance with the allowable particulate matter, opacity, and SO_2 emission limitations while burning natural gas.

3. <u>Testing Requirements:</u>

Testing shall be conducted as required by the Cabinet in accordance with 401 KAR 50:045, Section 4.

4. Specific Monitoring Requirements:

The permittee shall monitor the monthly and the twelve (12) month rolling total fuel heat input (MMBtu) and natural gas usage (MMscf) [401 KAR 52:020, Section 10].

5. <u>Specific Recordkeeping Requirements:</u>

The permittee shall maintain records of the monthly and the twelve (12) month rolling total fuel heat input (MMBtu) and natural gas usage (MMscf) [401 KAR 52:020, Section 10].

6. <u>Specific Reporting Requirements:</u>

See Section F – Monitoring, Recordkeeping, and Reporting 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 must 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.

| Description | Generally Applicable Regulation |
|---|---------------------------------|
| 1. #2 fuel oil system including unloading and storage | N/A |
| 2. Paved and unpaved roadways and parking areas within facility gate | 401 KAR 63:010 |
| 3. Wet ash and pond ash handling and management | nt N/A |
| 4. A gasoline fuel dispensing operation handling Less than 5,000 gallons per day, such as filling of tanks, locomotives, automobiles, and having a storage capacity of less than or equal to 10,500 gallons | 401 KAR 59:050 |
| 5. A diesel fuel dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month | 401 KAR 59:050 |
| Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids | N/A |
| Degreasing operations that do not exceed 145 gallons per year, cold cleaners which meet exemption criteria from 401 KAR 59:185, which do not use halogenated solvents | N/A |
| 8. The following equipment related to manufactur activities not resulting in emissions of hazardou air pollutants: brazing equipment, cutting torch soldering equipment, welding equipment | us |
| Activities associated with the treatment of wastewater streams with an oil or grease conten less than or equal to one percent by volume | N/A nt |

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

| Operations using aqueous solutions containing less than one percent of volatile organic compounds excluding hazardous air pollutants | N/A |
|--|----------------|
| 11. Repair of electrostatic precipitators, replacement of bags in baghouses, and filters in other air filtration equipment | N/A |
| 12. Heat exchanger cleaning and repair | N/A |
| 13. Process vessel degassing and cleaning to prepare for internal repairs | N/A |
| 14. Paved and unpaved roads and parking lots with public access | N/A |
| 15. Laboratory fume hoods and vents used exclusively for chemical or physical analysis | N/A |
| 16. Flue gas conditioning system and associated chemicals including sulfur storage tank | N/A |
| 17. Combustion source flame safety purging on startup | N/A |
| 18. Water-based adhesives that are less than or equal to five percent by volume volatile organic compunds excluding hazardous air pollutants | N/A |
| 19. Natural draft cooling towers not regulated by NESHAP and associated chemical storage tanks, for which emission potential is less than five tons per year with potential emissions of hazardous air pollutants less than 1000 pounds per year | N/A |
| 20. Stockpiled soils from soil remediation activities that are waiting transport for disposal | 401 KAR 63:010 |
| 21. Infrequent evaporation of boiler cleaning fluids | N/A |
| 22. Infrequent burning of de minimis quantities of used oil for energy recovery | N/A |
| 23. Electric-powered aux boiler for space heating (7.1MMBtu/hr) | N/A |

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. Particulate matter, nitrogen oxides, sulfur dioxide, and visible emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 CFR 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 "AEP Eastern System", solely for purposes of this Consent Decree, and are subject to System-Wide emission limits:
 - a. Amos Unit 1 (800 MW), Amos Unit 2 (800 MW), and Amos Unit 3 (1300 MW) located in St. Albans, West Virginia;
 - b. Big Sandy Unit 1 (260 MW) and Big Sandy Unit 2 (800 MW) located in Louisa, Kentucky;
 - c. Cardinal Unit 1 (600 MW), Cardinal Unit 2 (600 MW), and Cardinal Unit 3 (630 MW) located in Brilliant, Ohio;
 - d. Clinch River Unit 1 (235 MW), Clinch River Unit 2 (235 MW), and Clinch River Unit 3 (235 MW) located in Carbo, Virginia;
 - e. Conesville Unit 1 (125 MW), Conesville Unit 2 (125 MW), Conesville Unit 3 (165 MW), Conesville Unit 4 (780 MW), Conesville Unit 5 (375 MW), and Conesville Unit 6 (375 MW) located in Conesville, Ohio;
 - f. Gavin Unit 1 (1300 MW) and Gavin Unit 2 (1300 MW) located in Cheshire, Ohio;
 - g. Glen Lyn Unit 5 (95 MW) and Glen Lyn Unit 6 (240 MW) located in Glen Lyn, Virginia;
 - h. Kammer Unit 1 (210 MW), Kammer Unit 2 (210 MW), and Kammer Unit 3 (210 MW) located in Moundsville, West Virginia;
 - i. Kanawha River Unit 1 (200 MW) and Kanawha River Unit 2 (200 MW) located in Glasgow, West Virginia;
 - j. Mitchell Unit 1 (800 MW) and Mitchell Unit 2 (800 MW) located in Moundsville, West Virginia;
 - k. Mountaineer Unit 1 (1300 MW) located in New Haven, West Virginia;

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

- 1. Muskingum River Unit 1 (205 MW), Muskingum River Unit 2 (205 MW), Muskingum River Unit 3 (215 MW), Muskingum River Unit 4 (215 MW), and Muskingum River Unit 5 (585 MW) located in Beverly, Ohio;
- m. Picway Unit 9 (100 MW) located in Lockbourne, Ohio;
- n. Rockport Unit 1 (1300 MW) and Rockport Unit 2 (1300 MW) located in Rockport, Indiana;
- o. Sporn Unit 1 (150 MW), Sporn Unit 2 (150 MW), Sporn Unit 3 (150 MW), Sporn Unit 4 (150), and Sporn Unit 5 (450 MW) located in New Haven, West Virginia; and
- p. Tanners Creek Unit 1 (145 MW), Tanners Creek Unit 2 (145 MW), Tanners Creek Unit 3 (205 MW), and Tanners Creek Unit 4 (500 MW) located in Lawrenceburg, Indiana.

[Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 7]

4. Notwithstanding any other provisions of the combined Consent Decrees, except Section XIV (Force Majeure), during each calendar year specified in the table below, all Units in the AEP Eastern System, collectively, shall not emit NO_x in excess of the following Eastern System-Wide Annual Tonnage Limitations:

| Calendar Year | Eastern System-Wide Annual Tonnage Limitations for NOx |
|--------------------------------|---|
| 2009 | 96,000 tons |
| 2010 | 92,500 tons |
| 2011 | 92,500 tons |
| 2012 | 85,000 tons |
| 2013 | 85,000 tons |
| 2014 | 85,000 tons |
| 2015 | 75,000 tons |
| 2016, and each year thereafter | 72,000 tons |

[Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 67]

- i. To the extent a NO_x Emission Rate is required under the combined Consent Decrees, the permittee shall use CEMS in accordance with the reference methods specified in 40 C.F.R. Part 75 to determine such Emission Rate [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 85].
- ii. "Eastern System-Wide Annual Tonnage Limitation" means the limitations, as specified in the combined Consent Decrees, on the number of tons of the air

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

pollutants that may be emitted from the AEP Eastern System during the relevant calendar year (<u>i.e.</u>, January 1 through December 31), and shall include all emissions of the air pollutants emitted during all periods of startup, shutdown, and Malfunction, except that emissions that occur during a period of Malfunction may be excluded from the calculation if Defendants provide Notice of the Malfunction to Plaintiffs in accordance with Section XIV (Force Majeure) and it is determined to be a Force Majeure Event pursuant to that Section [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 19].

5. Notwithstanding any other provisions of the combined Consent Decrees, except Section XIV (Force Majeure), during each calendar year specified in the table below, all Units in the AEP Eastern System, collectively, shall not emit SO₂ in excess of the following Eastern System-Wide Annual Tonnage Limitations:

| Calendar Year | Eastern System-Wide Annual Tonnage |
|--------------------------------|------------------------------------|
| | Limitations for SO ₂ |
| 2010 | 450,000 tons |
| 2011 | 450,000 tons |
| 2012 | 420,000 tons |
| 2013 | 350,000 tons |
| 2014 | 340,000 tons |
| 2015 | 275,000 tons |
| 2016 | 145,000 tons |
| 2017 | 145,000 tons |
| 2018 | 145,000 tons |
| 2019 - 2021 | 113,000 tons per year |
| 2022 - 2025 | 110,000 tons per year |
| 2026 - 2028 | 102,000 tons per year |
| 2029, and each year thereafter | 94,000 tons per year |

[Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 86, and filed collectively 2/22/2013, paragraph 8].

To the extent an Emission rate or thirty (30)-Day Rolling Average Removal Efficiency for SO_2 is required under the combined Consent Decrees, the permittee shall use CEMS in accordance with the reference methods specified in 40 C.F.R. Part 75 to determine such Emission Rate or Removal Efficiency [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 100].

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 (5) 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 six (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 shut down, 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 owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within thirty (30) days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [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].
- 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:
 - 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 twelve (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.

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

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 | U.S. EPA Region 4 |
|--------------------------|------------------------|
| Asland Regional Office | Air Enforcement Branch |
| 1550 Wolohan Drive, | Atlanta Federal Center |
| Suite 1 | 61 Forsyth St. SW |
| Ashland, KY 41102-8942 | 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 thirty (30) days of the date the Kentucky Emissions Inventory System (KYEIS) emissions survey is mailed to the permittee.

SECTION G - GENERAL PROVISIONS

- 1. <u>General Compliance Requirements</u>
 - 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 must 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.

- 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 ninety (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].
- 1. 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].
- 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.
- 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 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, Start-Up, and Initial Compliance Demonstration Requirements

No construction authorized by this permit

- 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 (45) 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 76510 (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.

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
 - (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. <u>Risk Management Provisions</u>
 - a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center P.O. Box 10162 Fairfax, VA 22038

b. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION H - ALTERNATE OPERATING SCENARIOS

N/A

SECTION I - COMPLIANCE SCHEDULE

N/A

SECTION J - ACID RAIN

1. <u>Statutory and Regulatory Authority</u>

In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Kentucky Environmental and Public Protection Cabinet, Division for Air Quality issues this permit pursuant to 401 KAR 52:020, Title V Permits, 401 KAR 52:060, Acid Rain Permits, and 40 CFR Part 76.

2. <u>Permit Requirements:</u>

This Acid Rain Permit covers Acid Rain Units 1-2 (Boilers #1 and #2). They are coal-fired base load electric generating units. The Acid Rain Permit Application and NO_x Compliance Plan received on December 27, 2011 are hereby incorporated into and made part of this permit and the permittee must comply with the standard requirements and special provisions set forth in the application [40 CFR 72.9(a)(2)].

3. Acid Rain Program Emission and Operating Limitations:

The applicable Acid Rain emission limitations for the permittee are set in 40 CFR 73.10, Table 2, 40 CFR 76.5, and 40 CFR 76.11 and they are tabulated in the tables below:

| Affected Unit: Boiler #1 | | | | | |
|-------------------------------------|-------|-------|-------|-------|-------|
| Year for SO ₂ Allowances | 2015 | 2016 | 2017 | 2018 | 2019 |
| 40 CFR Part 73.10 | 6,441 | 6,441 | 6,441 | 6,441 | 6,441 |

NO_x Limits and Requirements

- (i) Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NO_x emissions averaging plan for this unit. This plan is effective for calendar year 2010 and beyond. Under this plan, determined in accordance with 40 CFR Part 75, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.50 lb/MMBtu.
- (ii) In addition, the actual BTU-weighted annual average NO_x emissions rate for the unit in the plan shall be less than or equal to the BTU-weighted annual average NO_x emissions rate for the same unit had it been operated, during the same period of time, in compliance with the applicable emissions limitations under 40 CFR Part 76.5, 76.6, or 76.7.
- (iii) If the designated representative demonstrates that the requirement of condition (ii) (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emissions limitation set in condition (i).

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.

| Affected Unit: Boiler #2 | | | | | |
|---|---|--------|--------|--------|--------|
| Year for SO ₂ Allowances 2015 2016 2017 2018 2019 | | | | | |
| 40 CFR Part 73.10 | 18,584 | 18,584 | 18,584 | 18,584 | 18,584 |
| NO _x Limits and Requiremen | NO _x Limits and Requirements | | | | |
| (i) Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NO_x emissions averaging plan for this unit. This plan is effective for calendar year 2010 and beyond. Under this plan, determined in accordance with 40 CFR Part 75, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.50 lb/MMBtu. | | | | | |
| (ii) In addition, the actual BTU-weighted annual average NO_x emissions rate for the unit in the plan shall be less than or equal to the BTU-weighted annual average NO_x emissions rate for the same unit had it been operated, during the same period of time, in compliance with the applicable emissions limitations under 40 CFR Part 76.5, 76.6, or 76.7. | | | | | |

(iii) If the designated representative demonstrates that the requirement of condition (ii) (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emissions limitation set in condition (i).

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.

Consent Decree Requirements:

1) Except as may be necessary to comply with Sections IV (NO_x Emission Reduction and Controls) and Section XIII (Stipulated Penalties) of the combined Consent Decrees, the permittee shall not use NO_x Allowances to comply with any Consent Decree requirement, including by claiming compliance with any emission limitation or Eastern System-Wide Annual Tonnage Limitation required by the combined Consent Decrees, by using, tendering, or otherwise applying NO_x Allowances to achieve compliance or offset any emissions above the limits specified in the combined Consent Decrees. As required by Section IV of the combined Consent Decrees, the permittee shall surrender NO_x allowances that would otherwise be available for sale, trade, or transfer as a result of actions taken by the permittee to comply with the requirements of these Consent Decrees [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraphs 70 and 71].

 NO_x Allowances allocated to the AEP Eastern System may be used by the permittee to meet their own federal and/or state Clean Air Act regulatory requirements for the Units included in the AEP Eastern System. Subject to Paragraph 70 of the combined Consent Decrees, nothing in the combined Consent Decrees shall prevent the permittee from purchasing or otherwise obtaining NO_x Allowances from another

source for purposes of complying with their own federal and/or state Clean Air Act requirements to the extent otherwise allowed by law [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 72].

The requirements in this permit originating from the combined Consent Decrees pertaining to use and surrender of NO_x allowances are permanent injunctions not subject to any termination provision of the combined Consent Decrees. These provisions shall survive any termination of the consent decrees [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 73].

2) On an annual basis, beginning in 2009, the permittee shall calculate the difference between the NO_x CAIR Allocations for the Units in the AEP Eastern System for that year and the annual Eastern System-Wide Tonnage Limitations for NO_x for that calendar year. For purposes of the combined Consent Decrees, for each year commencing in 2009 and ending in 2015, forty-two percent (42%) of the Excess NO_x Allowances shall be Unrestricted Excess NO_x Allowances and fifty-eight percent (58%) shall be Restricted Excess NO_x Allowances. Commencing in 2016, and continuing thereafter, all Excess NO_x Allowances shall be Restricted Excess NO_x Allowances (Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 74].

For each calendar year commencing in 2009 and ending in 2015, the permittee may use Unrestricted Excess NO_x Allowances in any manner authorized by law. No later than March 1, 2016, the permittee must surrender, or transfer to a non-profit third party selected by the permittee for surrender, all unused Unrestricted Excess NO_x Allowances subject to surrender accumulated during the period from 2009 through 2015 [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 75].

Beginning in calendar year 2009, and for each calendar year thereafter, the permittee shall calculate the difference between the number of any Restricted Excess NO_x Allowances and the number of NO_x Allowances that is equal to the amount of actual NO_x emissions from: (a) any New and Newly Permitted Unit as defined in the combined Consent Decrees, and (b) the following five natural gas-fired plants but only up to a cumulative total of 1,200 tons of NO_x in any single year:

- Ceredo Generating Station near Ceredo, West Virginia, with a nominal generating capacity of 505 megawatts;
- Waterford Energy Center located in Southeastern Ohio, with a nominal generating capacity of 821 megawatts;
- Darby Electric Generating Station located near Columbus, Ohio, with a nominal generating capacity of 480 megawatts;
- Lawrenceburg Generating Station located in Lawrenceburg, Indiana, with a generating capacity of 1,096 megawatts;
- And a natural gas-fired power plant under construction near Dresden, Ohio, with a nominal generating capacity of 580 megawatts.

This difference shall be the amount of Restricted Excess NO_x Allowances potentially subject to surrender in 2016. During calendar years 2009 through 2015, the permittee may accumulate Restricted Excess NO_x Allowances potentially subject to surrender in 2016 [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 76].

Beginning in calendar year 2009, and for each calendar year thereafter, the permittee may subtract from the number of Restricted Excess NO_x Allowances potentially subject to surrender, a number of allowances calculated in accordance with this paragraph. To calculate such number, the permittee shall use the following method:

- Multiply 0.0002 by the sum of
- (a) the actual annual generation in MWH/year generated from solar or wind power projects first owned or operated by the permittee after the Date of Lodging of the combined Consent Decrees, and
- (b) the actual annual generation in MWH/year purchased by the permittee from solar or wind projects in any year after the Date of Lodging of the combined Consent Decrees.

Such figure so calculated shall be subtracted from the number of Restricted Excess NO_x Allowances potentially subject to surrender each year. The remainder shall be the Restricted Excess NO_x Allowances subject to surrender [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 77].

The permittee may, solely at their discretion, use Restricted Excess NO_x Allowances at a New or Newly Permitted Unit for which the permittee has received a final NSR Permit from the appropriate permitting agency even if the NSR Permit has been appealed but not stayed during the permit appeal process. If the permittee uses Restricted Excess NO_x Allowances at such New and Newly Permitted Unit, and the emissions from such New and Newly Permitted Unit are greater than what such Unit is permitted to emit after final adjudication of the appeal process, the permittee shall, within thirty (30) days of such final adjudication, retire an amount of NO_x Allowances equal to the number of tons of NO_x actually emitted that exceeded the finally adjudicated permit limit [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 78].

No later than March 1, 2016, the total number of Restricted Excess NO_x Allowances subject to surrender accumulated during 2009 through 2015 as calculated in accordance with paragraphs 74, 76, and 77 of the combined Consent Decrees shall be surrendered, or transferred to a non-profit third party selected by the permittee for surrender, by March 1 of the following calendar year [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 79].

3) In each calendar year beginning in 2009, and continuing thereafter, the permittee may use in any manner authorized by law any NO_x Allowances made available in that year as a result of maintaining actual NO_x emissions from the AEP Eastern System below the Eastern System-Wide Annual Tonnage Limitations for NO_x under the combined Consent Decrees for each calendar year. The permittee shall timely report the generation of such Super-Compliant NO_x Allowances in accordance with Section XI

(Periodic Reporting) and Appendix B of the combined Consent Decrees [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 80].

For purposes of the combined Consent Decrees, the "surrender" of Excess Restricted or Unrestricted Excess NO_x Allowances subject to surrender means permanently surrendering to EPA NO_x Allowances from the accounts administered by EPA such that NO_x Allowances can never be used thereafter to meet any compliance requirement under the Clean Air Act, a state implementation plan, or the combined Consent Decrees [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 81].

For all Restricted or Unrestricted Excess NO_x Allowances subject to surrender to EPA in paragraphs 79 and 75 of the combined Consent Decrees, above, the permittee or the third party recipient(s) (as the case may be) shall first submit a NO_x Allowance transfer request form to EPA's Office of Air and Radiation's Clean Air Markets Division directing the transfer of such NO_x Allowances to the EPA Enforcement surrender account that EPA may direct in writing. As part of submitting these transfer requests, the permittee or the third party recipient(s) shall irrevocably authorize the transfer of these NO_x Allowances and identify – by name of account and any applicable serial or other identification numbers or station games – the source and location of the NO_x Allowances being surrendered [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 82].

If any NO_x Allowances required to be surrendered under the combined Consent Decrees are transferred directly to a non-profit third party, the permittee shall include a description of such transfer in the next report submitted to EPA as required by Section XI (Periodic Reporting) of the combined Consent Decrees. Such report shall:

- (a) identify the non-profit third party recipient(s) of the NO_x Allowances and list the serial numbers of the transferred NO_x Allowances;
- And (b) include a certification by the third party recipient(s) stating that the recipient(s) will not sell, trade, or otherwise exchange any of the NO_x Allowances and will not use any of the NO_x Allowances to meet any obligation imposed by any environmental law.

No later than the second periodic report due after the transfer of any NO_x Allowances, the permittee shall include a statement that the third party recipient(s) surrendered the NO_x Allowances for permanent surrender to EPA in accordance with the provisions of paragraph 82 of the combined Consent Decrees within one (1) year after the permittee transferred the NO_x Allowances to them. The permittee shall not have complied with the NO_x Allowance surrender requirements of paragraph 83 of the combined Consent Decrees until all third party recipient(s) have actually transferred NO_x Allowances to EPA [Consent Decrees C2-99-1250, C2-99-1182, and C2-05-360, filed collectively 10/9/2007, paragraph 83].

Permit Number: V-15-013 R1

SECTION J - ACID RAIN (CONTINUED)

The permittee shall comply with the reporting requirements for NO_x Allowances as described in Section XI (Periodic Reporting) and Appendix B of the combined Consent Decrees [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 84].

4) The permittee may use SO₂ Allowances allocated to the AEP Eastern System by the Administrator of EPA under the Act, or by any state under its state implementation plan, to meet their own federal and/or state regulatory requirements for the Units included in the AEP Eastern System. Subject to paragraph 92 of the combined Consent Decrees, nothing in the combined Consent Decrees shall prevent the permittee from purchasing or otherwise obtaining SO₂ Allowances from another source for purposes of complying with their own federal and/or state Clean Air Act requirements to the extent otherwise allowed by law [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 91].

Except as necessary to comply with Sections V and XIII of the combined Consent Decrees, the permittee may not use any SO_2 Allowances to comply with any requirement of the combined Consent Decrees, including by claiming compliance with any emission limitation, or Eastern System-Wide Annual Tonnage Limitations, by using, tendering, or otherwise applying SO_2 Allowances to achieve compliance or offset any emissions above the limits specified in the combined Consent Decrees [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 92].

On an annual basis beginning in 2010, and continuing thereafter, the permittee shall calculate the number of excess SO_2 Allowances by subtracting the number of excess SO_2 Allowances equal to the annual Eastern System-Wide Tonnage Limitations for SO_2 for each calendar year times the applicable allowance surrender ratio from the annual SO_2 Allocations for all Units within the AEP Eastern System for the same calendar year. The permittee shall surrender, all Excess SO_2 Allowances that have been allocated to the AEP Eastern System for the specified calendar year by the Administrator of EPA under the Act or by any state under its implementation plan. The permittee shall make the surrender of SO_2 Allowances required by paragraph 93 of the combined Consent Decrees to EPA by March 1 of the immediately following calendar year [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 93].

The "surrender" of Excess SO_2 Allowances means permanently surrendering allowances from the accounts administered by EPA so that such allowances can never be used thereafter to meet any compliance requirement under the Clean Air Act, a state implementation plan, or the combined Consent Decrees [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 94].

If any SO_2 Allowances required to be surrendered under the combined Consent Decrees are transferred directly to a non-profit third party, the permittee shall include a description of such transfer in the next report submitted to EPA pursuant to Section XI (Periodic Reporting) of the combined Consent Decrees. Such report shall:

- (i) identify the non-profit third party recipient(s) of the SO₂ Allowances and list the serial numbers of the transferred SO₂ Allowances; and
- include a certification by the third party recipient(s) stating that the recipient(s) will not sell, trade, or otherwise exchange any of the allowances and will not use any of the SO₂ Allowances to meet any obligation imposed by any environmental law. No later than the second periodic report due after the transfer of any SO₂ Allowances, the permittee shall include a statement that the third party recipient(s) surrendered the SO₂ Allowances for permanent surrender to EPA in accordance with the provisions of paragraph 96 of the combined Consent Decrees within one (1) year after the permittee transferred the SO₂ Allowance surrender requirements of paragraph 95 of the combined Consent Decrees until all third party recipient(s) have actually surrendered the transferred SO₂ Allowances to EPA [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 95].

For all SO₂ Allowances surrendered to EPA, the permittee or the third party recipient(s) (as the case may be) shall first submit a SO₂ Allowance transfer request form to EPA's Office of Air and Radiation's Clean Air Markets Division directing the transfer of such SO₂ Allowances to the EPA Enforcement Surrender Account or to any other EPA account that EPA may direct in writing. As part of submitting these transfer requests, the permittee or the third party recipient(s) shall irrevocably authorize the transfer of these SO₂ Allowances and identify – by name of account and any applicable serial or other identification numbers or station names – the source and location of the SO₂ Allowances being surrendered [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 96].

The requirements in the combined Consent Decrees pertaining to the permittee's surrender of SO_2 Allowances are permanent injunctions not subject to any termination provision of the combined Consent Decrees. These provisions shall survive any termination of the combined Consent Decrees in whole or in part [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 97].

In each calendar year beginning in 2010, and continuing thereafter, the permittee may use in any manner authorized by law any SO₂ Allowances made available in that year as a result of maintaining actual SO₂ emissions from the AEP Eastern System below the Eastern System-Wide Annual Tonnage Limitations for SO₂ under this Consent Decree for each calendar year. The permittee shall timely report the generation of such Super-Compliant SO₂ Allowances in accordance with Section XI (Periodic Reporting) and Appendix B of the combined Consent Decrees [Consent Decrees C2-99-1250, C2-05-360, and C2-04-1098, filed collectively 10/9/2007, paragraph 98].

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 NOx annual trading program, and 401 KAR 51:220, CAIR NOx ozone season trading program.

2) CAIR Application

The CAIR application for two electrical generating units was submitted to the Division and received on June 27, 2007. 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.

The Affected units are two (2) pulverized coal-fired steam generators (Emission Units 01-02). Each unit has a nameplate capacity to generate greater than 25 megawatts of electricity, which is offered for sale. The units use coal as 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.

Permit Number: V-15-013 R1

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR)

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 Insert TR NO_X Annual Trading Program, TR NO_X Ozone Season Trading Program, and TR SO_2 Group 1 Trading Program.

| Unit ID: BSU1 | (firing gas) | | | | |
|-----------------|---|--|---|---|--|
| 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 | | Х | | | |
| 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), 97.630 and 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 must 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 must 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 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 97.630 through 97.634 (TR SO₂ Group 1 Trading Program) must 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 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 available EPA's website requirement is on 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 to 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, 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 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 AAAAA 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 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 AAAAA 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.

- (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 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.

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.

- (1) 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).
- (2) 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.
 - (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 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 BBBBB 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 exceed the state during a control period exceed the state during a control period exceeds the common designated representative's sasurance 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 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 $\ensuremath{\text{NO}_{X}}$ 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 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.

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.
 - (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 SO_2 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 SO_2 emissions exceeds the respective common designated representative's assurance level; and
 - (B). The amount by which total SO_2 emissions from all TR SO_2 Group 1 units at TR SO_2 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.
- (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 SO_2 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 SO_2 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).

(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.



220 West Main Street P.O. Box 32010 Louisville, Kentucky 40232

CERTIFIED MAIL #7015 1520 0000 7955 5248 RETURN RECEIPT REQUESTED

Date: September 25, 2015

Mr. Sean Alteri, Director Kentucky Division for Air Quality 200 Fair Oaks Lane, 1st Floor Frankfort, Kentucky 40601

Re: Update of Kentucky Utilities Green River Station Shutdown (AI# 3228)

Dear Mr. Alteri:

This is to provide notification to the Kentucky Division for Air Quality that Kentucky Utilities Green River Station Units 3 and 4 will be retired ahead of the schedule extension date granted by the Division earlier this year.

As described in the MATS extension request for these units dated December 2, 2014, the generating units of KU and its affiliate Louisville Gas and Electric Company (LG&E) are centrally dispatched on a coordinated basis. Associated with the proposed MATS regulatory timeline, a system-wide evaluation was commenced by the companies prior to publication of the proposed MATS rule to determine the emission reduction capability of all coal-fired units in the KU and LG&E system relative to the MATS targeted hazardous air pollutants. By the time the final MATS rule was published in February, 2012, LG&E and KU had determined that in order to meet continuous compliance with the emission limitations, some of its older coal-fired generation would be retired and all remaining coal-fired generation within the fleet would need additional emissions control.

Green River Units 3 and 4 were two of the units within the LG&E and KU fleet that were determined to be retired in lieu of retrofitting them with new emission controls sufficient to meet the limitations of the MATS rule and plans were initially put in place to retire the units by the MATS compliance date of April 16, 2015. However, an electric grid reliability condition occurred in June 2014 which caused the need for further evaluation of those retirements. As a result of the subsequent evaluation, reliability issues with the Bulk Electric System associated with the loss of generation from Green River Units 3 and 4 were identified and a request was filed with the Kentucky Division for Air Quality to extend the MATS compliance date to April 16, 2016 pursuant to 40 CFR 63.6(i)(6)(i) based on the need for completing projects shown below to alleviate the reliability issues. The Division subsequently granted the extension on January 6, 2015.

- Delay retirement of KU's Green River Units 3 and 4 until the below projects are complete
 - a. Complete the Mantanzas (LG&E and KU) Paradise (TVA) 161kV facility with completion expected by December 31, 2015
 - Add Reactors to the Livingston County North Princeton 161 kV line and Livingston – Crittenden 161 kV lines with completion expected by summer of 2016

The work noted above is now complete allowing for shutdown of the Green River Generating Station earlier than previously planned.

With consideration that the projects described above are complete, KU is providing this notification that the Green River units will be retired at midnight on September 30, 2015 and requests the Division inform KU if any additional notification relative to MATS compliance is required.

If you have any questions or need any additional information, please contact me or Jason Wilkerson (502-627-4043) at any time.

Respectfully,

twe Holond

Steve Noland Manager, Environmental Affairs Air Section LG&E and KU Energy

cc: Rick Shewekah, Manager KyDAQ Permit Review Branch

> Mac Cann, Supervisor KyDAQ Owensboro Regional Office

Thomas Troost, Plant Manager KU Green River Station

Update of Kentucky Utilities Green River Station Shutdown

Attachment C

Compliance Demonstration Method – Federally-enforceable emissions limits [40 CFR 51.1203 (e)] Commonwealth of Kentucky Energy and Environment Cabinet Department for Environmental Protection Division for Air Quality 200 Fair Oaks Lane, 1st Floor Frankfort, Kentucky 40601 (502) 564-3999



AIR QUALITY PERMIT Issued under 401 KAR 52:020

| Permittee Name: Mailing Address: | East Kentucky Power Cooperative, Inc. 4775 Lexington Road, P.O. Box 707, Winchester, KY 40392-0707 |
|---|--|
| Source Name: Mailing Address: | John Sherman Cooper Power Station State Highway 1247 South Burnside, Kentucky |
| Source Location: | Located next to Lake Cumberland, on Cooper Power Plant Road |
| Permit: Agency Interest: Activity: Review Type: Source ID: | V-12-019 R2 3808 APE20150002 Title V, Operating 21-199-00005 |
| Regional Office: County: | London Regional Office 875 S. Main Street London, KY 40741 (606) 330-2080 Pulaski |
| Application Complete Date: Issuance Date: Revision Date: Expiration Date: | September 4, 2011 August 14, 2013 June 17, 2016 August 14, 2018 |

Sean alteri

Sean Alteri, Director Division for Air Quality

Version 10/16/13

TABLE OF CONTENTS

| SECTION | ISSUANCE | PAGE |
|--|----------|------|
| A. PERMIT AUTHORIZATION | Revision | 1 |
| B. EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS | Revision | 2 |
| C. INSIGNIFICANT ACTIVITIES | Revision | 60 |
| D. SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS | Revision | 62 |
| E. SOURCE CONTROL EQUIPMENT REQUIREMENTS | Revision | 69 |
| F. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS | Revision | 70 |
| G. GENERAL PROVISIONS | Revision | 73 |
| H. ALTERNATE OPERATING SCENARIOS | Revision | 79 |
| I. COMPLIANCE SCHEDULE | Revision | 80 |
| J. PHASE II ACID RAIN PERMIT | Revision | 82 |
| K. CLEAN AIR INTERSTATE RULE (CAIR) | Revision | 84 |
| L. CROSS-STATE AIR POLLUTION RULE (CSAPR) | Revision | 85 |

| | Permit type | Activity# | Complete Date | Issuance Date | Summary of Action |
|----------------|-------------------------|-------------|------------------|------------------|--|
| V-12-019 R2 | Significant Revision | APE20150002 | 1/8/2016 | 6/17/16 | Addition of SO ₂ limit to Unit 1 and source-wide SO ₂ limit |
| V-12-019 R1 | Significant Revision | APE20130001 | 06/26/13 | 10/10/14 | Add DFGD/PJFF to Unit 1, incorporate BART SIP requirements, updated CAM plan, and EU 15 |
| V-12-019 | Renewal | APE20110005 | 09/04/11 | 8/14/13 | Title V Renewal Permit incorporating Consent Decree and EGU MACT requirements |

Version 10/16/13

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality (Division) hereby authorizes the construction and 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.

Emissions Unit 01 - Indirect Heat Exchanger (Unit 1)

| Description: | Pulverized coal-fired, dry-bottom, wall-fired unit equipped with electrostatic precipitator and low NO_X burners. Additional control equipment after Unit 1 duct reroute: the existing Unit 2 dry flue gas desulfurization and pulse jet fabric filter will be utilized to control Unit 1 and Unit 2 emissions. |
|-------------------------|---|
| Primary Fuel: | Pulverized Coal, Number two fuel oil used for startup and flame stabilization |
| Secondary Fuel: | up to 3% by weight (tons) - wood waste in blend |
| Maximum Continuous | |
| Rating: | 1,080 MMBtu/hr |
| Construction Commenced: | 1965 (The electrostatic precipitator was installed in 1971 and rebuilt in |
| | 1989. The low-NO _X burners were installed in 1993. Duct reroute to existing Unit 2 dry flue gas desulfurization and pulse jet fabric filter control train to be completed by April 16, 2016.) |

APPLICABLE REGULATIONS:

401 KAR 61:015 Existing Indirect Heat Exchangers, applies to existing indirect heat exchangers with a capacity more than 250 MMBtu per hour and commenced before August 17, 1971.

- **401 KAR 52:060** Acid Rain Permits, incorporating by reference 40 CFR Parts 72 to 78, Federal Acid Rain provisions (See Section J)
- 401 KAR 51:160 NO_X Requirements for Large Utility and Industrial Boilers
- **401 KAR 51:210** CAIR NO_X Annual Trading Program (see Section K)
- 401 KAR 51:220 CAIR NO_X Ozone Season Trading Program (see Section K)
- **401 KAR 51:230** CAIR SO₂ Trading Program (see Section K)
- 40 CFR Part 75 Continuous Emissions Monitoring (CEM)
- 40 CFR Part 64 Compliance Assurance Monitoring (CAM) for particulate matter
- 40 CFR Part 63 Subpart UUUUU, National Emission Standards for Hazardous Air
- Pollutants, Coal- and Oil-Fired Electric Utility Steam Generating Units
- **40 CFR Part 52** Subpart S, Kentucky (BART SIP)

NON-APPLICABLE REGULATIONS:

401 KAR 63:020 Potentially Hazardous Matter or Toxic Substances

APPLICABLE CONSENT DECREE:

Consent Decree entered September 24, 2007, Civil Action No. 04-34-KSF Non-Material Change to Consent Decree filed October 7, 2011, Civil Action No. 04-34-KSF

1. **Operating Limitations:**

a. In order to meet 3% alternate fuel usage, wood waste usage shall not exceed 4.3 tons per hour. [Self-imposed restriction to preclude the applicability of 401 KAR 51:017]

1. **Operating Limitations** (Continued):

b. Upon final action by the U.S. EPA designating Pulaski County "unclassifiable/attainment" or "attainment" with the 2010 1-hour SO₂ NAAQS, the permittee shall only burn coal with a sulfur content no greater than 3.3 lb SO₂/MMBtu [401 KAR 51:010 and 401 KAR 53:010].

Compliance Demonstration Method:

The permittee shall monitor fuel sulfur content and heat content as required in paragraphs 4.e. and f., <u>Specific Monitoring Requirements</u>, and calculate fuel sulfur content in terms of lb/MMBtu.

c. The permittee shall comply with all applicable provisions of 40 CFR 63.9991 by April 16, 2016.

General Compliance Demonstration Method:

See *General Compliance Demonstration Method* listed under <u>Emisson Limitation</u> 2.d below.

2. <u>Emission Limitations:</u>

a. Pursuant to 401 KAR 61:015, Section 4(1), particulate matter emissions shall not exceed 0.23 lb/MMBtu based on a three-hour average. See Section I – Compliance Schedule for additional requirements.

Compliance Demonstration Method:

To provide assurance that the particulate matter emission limitation is being met the permittee shall comply with the subsection 3.a. **Testing Requirement**.

- b. Pursuant to 401 KAR 61:015, Section 4(3), emissions shall not exceed 40 percent opacity with respect to particulate matter based on a six-minute average, except:
 - 1) That for cyclones or pulverized fired indirect heat exchangers a maximum of sixty (60) percent opacity shall be permissible for not more than one (1) six (6) minute period in any sixty (60) consecutive minutes;
 - 2) Emissions from an indirect heat exchanger shall not exceed 40 percent opacity based on a six minute average except for emissions from an indirect heat exchanger 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.

2. <u>Emission Limitations</u> (Continued):

Compliance Demonstration Method:

To provide assurance that the visible emission limitations are being met the permittee shall comply with the subsection 3.b. <u>Testing Requirements</u>.

c. Sulfur dioxide emissions shall not exceed 3.3 lb/MMBtu based on a twenty-four-hour average [401 KAR 61:015, Section 5(1)]. Upon final action by the U.S. EPA designating Pulaski County "unclassifiable/attainment" or "attainment" with the 2010 1-hour SO₂ NAAQS, the unit shall either achieve a SO₂ removal efficiency of at least 95 percent based on a 30-day rolling average or the SO₂ emissions shall not exceed 0.100 lb/MMBtu based on a 30-day rolling average [401 KAR 51:010 and 401 KAR 53:010].

Compliance Demonstration Method:

In determining emission rates for SO₂, the permittee shall use CEMS in accordance with the procedures specified in 40 CFR Part 75. If the percent removal efficiency requirement is used to demonstrate compliance, the outlet SO₂ emission rate shall be determined by using 40 CFR Part 60, Appendix A-7, Method 19, Equation 19-7 to calculate the Unit 1 SO₂ inlet and Equation 19-24 to determine the SO₂ percent removal efficiency. The permittee will calculate the Unit 1 SO₂ outlet by dividing the sum of the combined Unit 1 and 2 duct SO2 emitted (in pounds) over 30 days by the sum of combined Unit 1 and 2 duct heat input over 30 days. Or if the permittee chooses to demonstrate compliance based on the limit of 0.100 lb/MMBtu, the outlet SO₂ CEMS will be used.

d. The permittee shall comply with all applicable provisions of 40 CFR 63.9991 by April 16, 2016.

General Compliance Demonstration Method:

- 1) The permittee shall comply with 40 CFR 63, Subpart UUUUU no later than April 16, 2016. [40 CFR 63.9984(b) and 40 CFR 63.6(i)(4)(i)(A)]
- 2) The permittee shall meet the notification requirements in 40 CFR 63.10030 according to the schedule in 40 CFR 63.10030 and in subpart A of 40 CFR Part 63. Some of the notifications must be submitted before compliance with the emission limits and work practice standards in this subpart is required. [40 CFR 63.9984(c)]
- The permittee shall demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than 180 days after April 16, 2016. [40 CFR 63.9984(f)]
- 4) The permittee shall demonstrate continuous compliance according to the applicable provisions of 40 CFR 63.10000 through 40 CFR 63.10023.

2. <u>Emission Limitations</u> (Continued):

e. Beginning April 15, 2016, filterable particulate matter emissions shall not exceed 0.030 lb/MMBtu. [Consent Decree entered September 24, 2007, paragraph 84]

Compliance Demonstration Method:

To provide assurance that the particulate emission limitation is being met the permittee shall comply with <u>Testing Requirement</u> 3.a below and Section D.

f. Pursuant to the Kentucky BART SIP, by April 30, 2017, filterable particulate matter emissions shall not exceed 0.030 lb/MMBtu.

Compliance Demonstration Method:

To provide assurance that the particulate emission limitation is being met the permittee shall comply with the 3.a. <u>Testing Requirements</u> and Section D.

3. <u>Testing Requirements:</u>

- a. The permittee shall conduct a PM performance test annually. This requirement may be satisfied by PM performance testing conducted to satisfy other requirements of this permit. 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-1, Method 5 demonstrate that the PM emissions are equal to or less than 0.015 lb/MMBtu or;
 - 2) The Unit is equipped with a PM CEMS in accordance with paragraphs 88 through 95 of the Consent Decree.

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 Unit is equipped with a PM CEMS. [Consent Decree entered September 24, 2007, paragraph 86]

- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall determine the opacity of emissions from the stack by US EPA Reference Method 9 on a bi-weekly basis, or more frequently if requested by the Division. In lieu of Reference Method 9 readings, the permittee may use COM data for compliance determinations.
- c. The permittee shall comply with all applicable provisions of 40 CFR 63.10005 through 40 CFR 63.10009 and 40 CFR 63.10011 by April 16, 2016.

4. Specific Monitoring Requirements:

- a. Pursuant to 401 KAR 61:005, Section 3, Performance Specification 1 of 40 CFR 60, Appendix B, and 401 KAR 52:020, Section 10, a continuous opacity monitoring (COM) system shall conform to requirements of these sections which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement. Excluding exempted time periods, if any six-minute average opacity value exceeds the opacity standard, the permittee shall, as appropriate:
 - 1) Accept the concurrent readout from the COM and perform an inspection of the control equipment and make any necessary repairs or;
 - 2) Within 30 minutes after COM indicates exceedance of the opacity standard, determine opacity using U.S. EPA Reference Method 9: if emissions are visible, inspect the COM and/or the control equipment, and make any necessary repairs. If a U.S. EPA Reference Method 9 cannot be performed, the reason for not performing the test shall be documented.
- b. Pursuant to 401 KAR 52:020, Section 10, and 401 KAR 61:005, Section 3(6), to meet the monitoring requirement for particulate matter, the permittee shall use a COM. Pursuant to 40 CFR 64.4(a)(1), stack opacity shall be used as an indicator of particulate matter emissions as directed in Table 1.

| Indicator level: | 40% Stack Opacity as established by stack testing. | | |
|----------------------|--|--|--|
| Measurement | The opacity is measured using a COM system at the common | | |
| Approach: | stack shared by Units 1 and 2. | | |
| Indicator: | An excursion is defined as measured stack opacity greater | | |
| | than 40%, as established by stack testing, based on a three- | | |
| | hour block average, excluding those events defined as | | |
| | startup, shutdown or malfunction. | | |
| Monitoring | Continuous | | |
| Frequency: | | | |
| Data Collection | The COM system collects a data point every 10 seconds and | | |
| Procedures: | the CEMS data acquisition system reduces the data to three- | | |
| | hour block averages. | | |
| Excursion Follow-up: | Following an excursion, the permittee shall initiate an | | |
| | inspection of the control equipment and then the COM | | |
| | system and make any necessary repairs. | | |
| QA/QC Practices and | Daily zero and calibration drift check, periodic cleaning of | | |
| criteria: | optical surfaces and other periodic checks as specified in | | |
| | Performance Specification (PS) 1. | | |

Table 1- Monitoring Approach for Unit 1:

4. <u>Specific Monitoring Requirements</u> (Continued):

If five percent or greater of the COM data (three-hour average of opacity values excluding startup, shutdown and malfunction) recorded in a calendar quarter show excursions above the opacity indicator level, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate standard while operating at representative conditions. The permittee shall submit a compliance test protocol as pursuant to 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, Performance Tests.

- c. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the ESP primary/secondary current and voltage.
- d. Pursuant to 401 KAR 61:005, Section 3 and Performance Specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A, and 401 KAR 52:020, Section 10, continuous emission monitoring systems (CEMS) shall be installed, calibrated, maintained, and operated for measuring nitrogen oxide, sulfur dioxide and either oxygen or carbon dioxide emissions. Excluding exempted time periods, if any 24-hour average sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any necessary repairs or take corrective actions as soon as practicable.
- e. Pursuant to 401 KAR 61:015, Section 6(1), the sulfur content of solid fuels, as burned shall be determined at least once per week in accordance with methods specified by the Division.
- f. Pursuant to 401 KAR 61:015, Section 6(3), 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.
- g. Pursuant to 401 KAR 61:005, Section 3(5), the Division may provide a temporary exemption from the monitoring and reporting requirements of 401 KAR 61:005, Section 3, for the continuous monitoring system during any period of monitoring system malfunction, provided that the source owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.
- h. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the duration of the startup.
- i. The permittee shall comply with all applicable continuous monitoring requirements of 40 CFR 63.10010, 40 CFR 63.10020 and 40 CFR 63.10021 by April 16, 2016.

5. <u>Specific Record Keeping Requirements:</u>

- a. In accordance with 401 KAR 61:005, Section 3(15) and 401 KAR 61:015, Section 6, the permittee shall maintain a file of all information reported in the quarterly summaries, with the exception that records shall be maintained for five years.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of:
 - 1) Each fuel analysis;
 - 2) The rate of fuel burned for each fuel type, on a daily basis;
 - 3) The heating value and ash content on a weekly basis;
 - 4) The average electrical output and the minimum and maximum hourly generation rate on a daily basis;
 - 5) When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted;
 - 6) Data collected either by the continuous monitoring systems or as necessary to convert monitoring data to the units of the applicable standard;
 - 7) Results of all compliance tests; and
 - 8) Percentage of the COM data (excluding exempted time periods) showing excursions above the opacity standard and the opacity indicator level.
- c. Pursuant to 401 KAR 52:020, Section 10, records of primary/secondary voltage and current, and corrective actions for the electrostatic precipitator shall be maintained with long-term operational records for five years.
- d. Pursuant to 401 KAR 52:020, Section 10, the permittee shall keep visible observation records and U.S. EPA Reference Method 9 observations in a designated logbook and/or an electronic format. Records shall be maintained for five years.
- e. Pursuant to 401 KAR 52:020, Section 10 and 401 KAR 61:015, in the event of start-up, the permittee shall report:
 - 1) The duration of startup;
 - 2) The type of start-up (cold, warm, or hot);

5. <u>Specific Record Keeping Requirements</u> (Continued):

- 3) Whether or not the duration of the start-up exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of why the start-up exceeded recommended or typical durations.
- f. The permittee shall comply with all applicable record keeping provisions of 40 CFR 63.10030 through 40 CFR 63.10033 by April 16, 2016.

6. <u>Specific Reporting Requirements:</u>

- a. Pursuant to 401 KAR 61:005, Section 3, minimum data requirements which follow shall be maintained and furnished in the format specified by the Division:
 - 1) Owners or operators of facilities required to install continuous monitoring systems for opacity and sulfur dioxide or those utilizing fuel sampling and analysis for sulfur dioxide emissions shall submit for every calendar quarter, a written report of excess emissions and the nature and cause of the excess emissions if known. The averaging period used for data reporting should correspond to the emission standard averaging period which is a 24 hour averaging period. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.
 - 2) Owners or operators of facilities required to install continuous monitoring systems for opacity shall submit for every calendar quarter a written report of excess emission and the nature and cause of emissions. The summary shall consist of the magnitude in actual percent opacity of six-minute averages of opacity greater than the opacity standard in the applicable standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity. Opacity data shall be reported in electronic format acceptable to the Division.
 - 3) For gaseous measurements the summary shall consist of hourly averages in the units of the applicable standard. The hourly averages shall not appear in the written summary, but shall be provided in electronic format only.
 - 4) The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the Division whenever system repairs or adjustments have been made.

6. <u>Specific Reporting Requirements</u> (Continued):

- b. The permittee shall report the number of excursions (excluding exempted time periods) above the opacity indicator level, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity indicator level in each calendar quarter.
- c. Pursuant to 401 KAR 61:015, in the event of start-up, the permittee shall report all records made as required under Subsection 5.e. **Specific Record Keeping Requirements**.
- d. The permittee shall comply with all applicable reporting provisions of 40 CFR 63.10030 through 40 CFR 63.10033 by April 16, 2016.

7. <u>Specific Control Equipment Operating Conditions:</u>

- a. The electrostatic precipitator shall be continuously operated to maximize PM emission reductions, consistent with manufacturer's specifications, the operational design and maintenance limitations of the units, and good engineering practice. The permittee shall at a minimum:
 - 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; and
 - 4) Inspect for, and schedule for repair, any openings in ESP casings and ductwork to minimize air leakage. [Consent Decree entered September 24, 2007, Section VII.A]
- b. The permittee shall optimize the plate-cleaning and discharge-electrode-cleaning systems for the ESPs by varying the cycle time, cycle frequency, rapper-vibrator intensity, and number of strikes per cleaning event, to minimize PM emissions. [Consent Decree entered September 24, 2007, Section VII.A]
- c. Pursuant to 401 KAR 52:020, Section 10, records regarding the maintenance of the control equipment shall be maintained.
- d. 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].
- e. See Section E Source Control Equipment Requirements for additional requirements.

Emissions Unit 02 - Indirect Heat Exchanger (Unit 2)

| Description: | Pulverized coal-fired, dry-bottom, wall-fired unit equipped with low NO _X burners, Flue Gas Desulfurization (FGD), Selective Catalytic Reduction (SCR), pulse jet fabric filter, and FuelSolv Treatment. |
|-----------------|---|
| Primary Fuel: | Coal, Number two fuel oil used for startup and flame stabilization |
| Secondary Fuel: | up to 3% by weight (tons) - wood waste in blend |
| Maximum | |
| Continuous | 2,089 MMBtu/hr |
| Rating: | |
| Construction | 1969. Low-NO _X burners were installed in 1994. The FGD, SCR, and pulse jet |
| Commenced: | fabric filter baghouse were installed in 2012. The FGD and pulse jet fabric filter |
| | baghouse have been in operation since June 30, 2012. The pulse jet fabric filter |
| | baghouse has replaced the electrostatic precipitator The ESP is no longer in |
| | operation. PM CEMS installed on or before December 31, 2012 as required by the |
| | Notice of Non-Material Change to Consent Decree filed October 7, 2011 and the |
| | Consent Decree filed September 24, 2007, Civil Action No. 04-34-KSF. |

APPLICABLE REGULATIONS:

| 401 KAR 61:015 | Existing Indirect Heat Exchangers, applies to existing indirect heat exchangers |
|----------------|---|
| | with a capacity more than 250 MMBtu per hour and commenced before August |
| | 17, 1971. |
| 401 KAR 51:160 | NO _X Requirements for Large Utility and Industrial Boilers |
| 401 KAR 51:210 | CAIR NO _X Annual Trading Program (see Section K). |
| 401 KAR 51:220 | CAIR NO _X Ozone Season Trading Program (see Section K) |
| 401 KAR 51:230 | CAIR SO ₂ Trading Program (see Section K) |
| 401 KAR 52:060 | Acid Rain Permits incorporating the Federal Acid Rain provisions as codified in |
| | 40 CFR Parts 72 to 78 (see Section J) |
| 40 CFR Part 75 | Continuous Emissions Monitoring (CEM) |
| 40 CFR Part 64 | Compliance Assurance Monitoring (CAM) for particulate matter, unless PM |
| | CEMS is the method of compliance. |
| 40 CFR Part 63 | Subpart UUUUU, National Emission Standards for Hazardous Air |
| | Pollutants, Coal- and Oil-Fired Electric Utility Steam Generating Units |
| 40 CFR Part 52 | Subpart S, Kentucky (BART SIP) |
| | |

NON-APPLICABLE REGULATIONS:

401 KAR 63:020 Potentially Hazardous Matter or Toxic Substances

APPLICABLE CONSENT DECREE:

Consent Decree entered September 24, 2007, Civil Action No. 04-34-KSF Non-Material Change to consent Decree filed October 7, 2011, Civil Action No. 04-34-KSF

1. **Operating Limitations:**

The permittee shall comply with all applicable provisions of 40 CFR 63.9991 by April 16, 2016.

General Compliance Demonstration Method:

See *General Compliance Demonstration Method* listed under <u>Emisson Limitation</u> 2.e below.

2. <u>Emission Limitations:</u>

a. Pursuant to 401 KAR 61:015, Section 4(1), particulate matter emissions shall not exceed 0.23 lb/MMBtu based on a three-hour average. See Section I Compliance Schedule for additional requirements.

Compliance Demonstration Method:

To provide assurance that the particulate matter emission limitation is being met the permittee shall comply with the subsection **3. <u>Testing Requirements</u>** below.

- b. Pursuant to 401 KAR 61:015, Section 4(3), emissions shall not exceed 40 percent opacity with respect to particulate matter based on a six-minute average except:
 - 1) That for cyclones or pulverized fired indirect heat exchangers a maximum of sixty (60) percent opacity shall be permissible for not more than one (1) six (6) minute period in any sixty (60) consecutive minutes;
 - 2) Emissions from an indirect heat exchanger shall not exceed 40 percent opacity based on a six-minute average except for emissions from an indirect heat exchanger 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 Demonstration Method:

To provide assurance that the visible emission limitation is being met the permittee shall comply with subsection 3.b. **Testing Requirements**.

c. Pursuant to 401 KAR 61:015, Section 5(1), sulfur dioxide emissions shall not exceed 3.3 lb/MMBtu based on a 24-hour average. Beginning on June 30, 2012, the permittee shall install and commence continuous operation of FGD technology on Unit 2 so as to achieve, and thereafter maintain, a 30-day Rolling Average SO₂ Removal Efficiency 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 65]

Compliance Demonstration Method:

2. <u>Emission Limitations</u> (Continued):

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]. If the percent removal efficiency requirement is used to demonstrate compliance, 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 SO₂ CEMS data from both the inlet and outlet of the control device). [Consent Decree entered September 24, 2007, paragraph 80]. See also 4.c. <u>Specific Monitoring Requirements</u> and Section D.

d. Beginning on December 31, 2012, the permittee shall install and commence continuous operation of year-round SCR technology on Unit 2 so as to achieve, and thereafter maintain, a NO_X, 30-Day Rolling Average Emission Rate not greater than 0.080 lb/MMBtu. [Consent Decree entered September 24, 2007, paragraph 53]

Compliance Demonstration Method:

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]. See also 4.c. **Specific Monitoring Requirements** and Section D.

e. The permittee shall comply with all applicable provisions of 40 CFR 63.9991 by April 16, 2016.

General Compliance Demonstration Method:

- 1) The permittee shall comply with 40 CFR 63, Subpart UUUUU no later than April 16, 2016. [40 CFR 63.9984(b) and 40 CFR 63.6(i)(4)(i)(A)]
- 2) The permittee shall meet the notification requirements in 40 CFR 63.10030 according to the schedule in 40 CFR 63.10030 and in subpart A of 40 CFR Part 63. Some of the notifications must be submitted before compliance with the emission limits and work practice standards in this subpart is required. [40 CFR 63.9984(c)]
- The permittee shall demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than 180 days after April 16, 2016. [40 CFR 63.9984(f)]
- 4) The permittee shall demonstrate continuous compliance according to the applicable provisions of 40 CFR 63.10000 through 40 CFR 63.10023.
- f. Beginning April 15, 2016, filterable particulate matter emissions shall not exceed 0.030 lb/MMBtu. [Consent Decree entered September 24, 2007, paragraph 84]

Compliance Demonstration Method:

2. <u>Emission Limitations</u> (Continued):

To provide assurance that the particulate emission limitation is being met the permittee shall comply with the **Testing Requirement** 3.b and Section D.

g. Pursuant to the Kentucky BART SIP, by April 30, 2017, filterable particulate matter emissions shall not exceed 0.030 lb/MMBtu.

Compliance Demonstration Method:

To provide assurance that the particulate emission limitation is being met the permittee shall comply with the 3.c. <u>Testing Requirements</u> and Section D.

3. <u>Testing Requirements:</u>

- a. Pursuant to 401 KAR 50:045, the permittee shall submit within six months of the issuance date of the final permit V-12-019 a schedule, to conduct a performance test for particulate compliance within one year of issuance of Permit Number V-12-019.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall determine the opacity of emissions from the stack by US EPA Reference Method 9 on a bi-weekly basis, or more frequently if requested by the Division. In lieu of Reference Method 9 readings, the permittee may use COM data for compliance determinations.
- c. The permittee shall conduct a PM performance test annually. This requirement may be satisfied by PM performance testing conducted to satisfy other requirements of this permit. 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-1, Method 5 demonstrate that the PM emissions are equal to or less than 0.015 lb/MMBtu or;
 - 2) The Unit is equipped with a PM CEMS in accordance with paragraphs 88 through 95 of the Consent Decree.

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 Unit is equipped with a PM CEMS. [Consent Decree entered September 24, 2007, paragraph 86]

d. The permittee shall comply with all applicable provisions of 40 CFR 63.10005 through 40 CFR 63.10009 and 40 CFR 63.10011 by April 16, 2016.

4. Specific Monitoring Requirements:

- a. Pursuant to 401 KAR 61:005, Section 3, Performance Specification 1 of 40 CFR 60, Appendix B, and 401 KAR 52:020, Section 10, a continuous opacity monitoring (COM) system shall conform to requirements of these sections which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement. Excluding exempted time periods, if any six-minute average opacity value exceeds the opacity standard, the permittee shall, as appropriate:
 - 1) Accept the concurrent readout from the COM and perform an inspection of the control equipment and make any necessary repairs or;
 - 2) Within 30 minutes after the COM indicates exceedance of the opacity standard, determine opacity using U.S. EPA Reference Method 9: if emissions are visible, inspect the COM and/or the control equipment, and make any necessary repairs. If a U.S. EPA Reference Method 9 cannot be performed, the reason for not performing the test shall be documented.
- b. Pursuant to 401 KAR 52:020, Section 10, and 401 KAR 61:005, Section 3(6), to meet the monitoring requirement for particulate matter, the permittee shall use a COM. Pursuant to 40 CFR 64.4(a)(1) stack opacity shall be used as an indicator of particulate matter emissions as instructed in Table 2.

| Indicator level: | 40% Stack Opacity, as established by stack testing. | | |
|------------------|--|--|--|
| Measurement | The opacity is measured using a COM system at the | | |
| Approach: | common stack shared by Units 1 and 2. | | |
| Indicator: | An excursion is defined as a measured stack opacity greater | | |
| | than 40%, as established by stack testing, based on a three- | | |
| | hour block average, excluding those events defined as | | |
| | startup, shutdown or malfunction. | | |
| Monitoring | Continuous | | |
| Frequency: | | | |
| Data Collection | The COM system collects a data point every 10 seconds and | | |
| Procedures: | the CEMS data acquisition system reduces the data to three- | | |
| | hour block averages. | | |
| Excursion | Following an excursion, the permittee shall, initiate an | | |
| Follow-up: | inspection of the control equipment and then the COM | | |
| | system and make any necessary repairs. | | |
| QA/QC Practices | Daily zero and calibration drift check, periodic cleaning of | | |
| and criteria: | optical surfaces and other periodic checks as specified in | | |
| | Performance Specification (PS) 1. | | |

Table 2- Monitoring Approach for Unit 2:

4. <u>Specific Monitoring Requirements</u> (Continued):

If five percent or greater of the COM data (three-hour average of opacity values excluding those events defined as startup, shutdown or malfunction) recorded in a calendar quarter show excursions above 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 required by 401 KAR 50:045, Performance Tests, of this permit 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, Performance Tests.

- c. Pursuant to 401 KAR 61:005, Section 3 and, Performance Specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A, and 401 KAR 52:020, Section 10, continuous emission monitoring systems (CEMS) shall be installed, calibrated, maintained, and operated for measuring nitrogen oxide, sulfur dioxide and either oxygen or carbon dioxide emissions. Excluding exempted time periods, if any 24-hour average sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any necessary repairs or take corrective actions as soon as practicable.
- d. Pursuant to 401 KAR 61:015, Section 6(1), the sulfur content of solid fuels, as burned shall be determined in accordance with methods specified by the Division.
- e. Pursuant to 401 KAR 61:015, Section 6(3), 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.
- f. Pursuant to 401 KAR 61:005, Section 3(5), the Division may provide a temporary exemption from the monitoring and reporting requirements of 401 KAR 61:005, Section 3, for the continuous monitoring system during any period of monitoring system malfunction, provided that the source owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.
- g. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the duration of the startup.
- h. The permittee shall install, certify, and operate PM CEMS by December 31, 2012. [Non-Material Change to Consent Decree filed October 7, 2011, page 2, Consent Decree entered September 24, 2007, paragraph 90]
 - 1) Operation of the PM CEMS shall be in accordance with 40 CFR Part 60, App. B, Performance Specification 11, and App. F Procedure 2.

4. <u>Specific Monitoring Requirements</u> (Continued):

- 2) Each PM CEMS shall comprise a continuous particle mass monitor measuring PM concentration, directly or indirectly, on an hourly average basis and a diluent monitor used to convert the concentration to units of lb/MMBtu.
- 3) The permittee shall maintain, in an electronic database, the hourly average emission values of the PM CEMS in lb/MMBtu.
- 4) The permittee shall use reasonable efforts to keep each PM CEMS running and producing data whenever any Unit served by the PM CEMS is operating. [Consent Decree entered September 24, 2007, paragraph 88]
- 5) No later than March 24, 2008, the permittee shall submit to US EPA for review and approval pursuant to Section XIII (Review and Approval of Submittals) of the Consent Decree a plan for the installation and certification of each PM CEMS. [Consent Decree entered September 24, 2007, paragraph 89]
- 6) No later than 120 days prior to December 31, 2012, the permittee shall submit to the US EPA for review and approval pursuant to Section XIII (Review and Approval of Submittals) of the Consent Decree a proposed Quality Assurance/Quality Control ("QA/QC") protocol that shall be followed in calibrating the PM CEMS. Following US EPA's approval of the protocol, the permittee shall thereafter operate the PM CEMS in accordance with the approved protocol. [Consent Decree entered September 24, 2007, paragraph 91]
- 7) In developing the plan for the QA/QC protocol, the permittee shall use the criteria set forth in 40 CFR Part 60, App. B, Performance Specification 11, and App. F Procedure 2. The permittee shall include in its QA/QC protocol a description of any periods in which it proposes that the PM CEMS may not be in operation in accordance with Performance Specification 11. [Consent Decree entered September 24, 2007, paragraph 92]
- 8) No later than 90 days after the permittee begins operation of the PM CEMS, the permittee shall conduct tests of the PM CEMS to demonstrate compliance with the PM CEMS installation and certification plan submitted to and approved by EPA in accordance with paragraph 89. [Consent Decree entered September 24, 2007, paragraph 93]
- 9) The permittee shall operate the PM CEMS for at least two years. After two years of operation, the permittee may attempt to demonstrate that it is infeasible to continue operating PM CEMS. As part of that demonstration, the permittee shall submit an alternative PM monitoring plan for review and approval by the US EPA. The plan shall explain the basis for stopping operation of the PM CEMS and propose an alternative-monitoring plan. If the US EPA disapproves the alternative PM monitoring plan, or if the US EPA rejects the permittee's claim that it is infeasible to continue operating PM CEMS, such disagreement is subject to Section XVI (Dispute Resolution) of the Consent Decree. [Consent Decree entered September 24, 2007, paragraph 94]

4. <u>Specific Monitoring Requirements</u> (Continued):

- 10) Operation of a PM CEMS shall be considered no longer feasible if:
 - i) The PM CEMS cannot be kept in proper condition for sufficient periods of time to produce reliable, adequate, or useful data consistent with the QA/QC protocol; or
 - ii) The permittee demonstrates that recurring, chronic, or unusual equipment adjustment or servicing needs in relation to other types of continuous emission monitors cannot be resolved through reasonable expenditures of resources.

If the US EPA determines that operation is no longer feasible, the permittee shall be entitled to discontinue operation of and remove the PM CEMS. [Consent Decree entered September 24, 2007, paragraph 95]

- 11) Following the installation of the PM CEMS, the permittee shall begin and continue to report to the US EPA, pursuant to Section XII (Periodic Reporting) of the Consent Decree, the data recorded by the PM CEMS, expressed in lb/MMBtu on a 3-hour, 24 hour, 30-day, and 365-day rolling average basis in electronic format, as required in subparagraphs (1)-(4) above. [Consent Decree entered September 24, 2007, paragraph 103]
- 12) Although stack testing shall be used to determine compliance with the PM Emission Rate established by the Consent Decree, data from the PM CEMS shall be used, at a minimum, to monitor progress in reducing PM emissions. Nothing in the Consent Decree is intended to, or shall, alter or waive any applicable law (including any defenses, entitlements, challenges, or clarifications related to the Credible Evidence Rule, 62 Fed. Reg. 8315 (Feb. 27, 1997)) concerning the use of data for any purpose under the Act, generated either by the reference methods specified herein or otherwise. [Consent Decree entered September 24, 2007, paragraph 104]
- i. The permittee shall comply with all applicable continuous monitoring requirements of 40 CFR 63.10010, 40 CFR 63.10020 and 40 CFR 63.10021 by April 16, 2016.

5. <u>Specific Record Keeping Requirements:</u>

- a. In accordance with 401 KAR 61:005, Section 3 and 401 KAR 61:015, Section 6, the owner or operator shall maintain a file of all information reported in the quarterly summaries, with the exception that records shall be maintained for a period of five years.
- b. The permittee shall maintain records of:
 - 1) Each fuel analysis;
 - 2) The rate of fuel burned for each fuel type, on a daily basis;

5. <u>Specific Record Keeping Requirements</u> (Continued):

- 3) The heating value and ash content on a weekly basis;
- 4) The average electrical output and the minimum and maximum hourly generation rate on a daily basis;
- 5) When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted;
- 6) Data collected either by the continuous monitoring systems or as necessary to convert monitoring data to the units of the applicable standard;
- 7) Results of all compliance tests; and
- 8) Percentage of the COM data (excluding exempted time periods) showing excursions above the opacity standard and the opacity indicator level.
- c. The permittee shall keep visible observation records and U.S. EPA Reference Method 9 observations in a designated logbook and/or an electronic format. Records shall be maintained for five years.
- d. Pursuant to 401 KAR 52:020, Section 10 and 401 KAR 61:015, in the event of start-up, the permittee shall record:
 - 1) The duration of startup;
 - 2) The type of start-up (cold, warm, or hot);
 - 3) Whether or not the duration of the start-up exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of why the start-up exceeded recommended or typical durations.
- e. The permittee shall comply with all applicable recording provisions of 40 CFR 63.10030 through 40 CFR 63.10033 by April 16, 2016.

6. <u>Specific Reporting Requirements:</u>

a. Pursuant to 401 KAR 61:005, Section 3, minimum data requirements which follow shall be maintained and furnished in the format specified by the Division.

6. <u>Specific Reporting Requirements</u> (Continued):

- 1) Owners or operators of facilities required to install continuous monitoring systems for opacity and sulfur dioxide or those utilizing fuel sampling and analysis for sulfur dioxide emissions shall submit for every calendar quarter, a written report of excess emissions and the nature and cause of the excess emissions if known. The averaging period used for data reporting should correspond to the emission standard averaging period which is a 24-hour averaging period. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.
- 2) Owners or operators of facilities required to install continuous monitoring systems for opacity shall submit for every calendar quarter a written report of excess emission and the nature and cause of emissions. The summary shall consist of the magnitude in actual percent opacity of six-minute averages of opacity greater than the opacity standard in the applicable standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity. Opacity data shall be reported in electronic format acceptable to the Division.
- 3) For gaseous measurements the summary shall consist of hourly averages in the units of the applicable standard. The hourly averages shall not appear in the written summary, but shall be provided in electronic format only.
- 4) The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the Division whenever system repairs or adjustments have been made.
- b. The permittee shall report the number of excursions (excluding exempted time periods) above the opacity indicator level, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity indicator level in each calendar quarter.
- c. Pursuant to 401 KAR 61:015, in the event of start-up, the permittee shall report all records made as required under Subsection **5.d**, <u>Specific Record Keeping Requirements</u>.
- d. The permittee shall comply with all applicable reporting provisions of 40 CFR 63.10030 through 40 CFR 63.10033 by April 16, 2016.

7. <u>Specific Control Equipment Operating Conditions:</u>

- a. The pulse jet fabric filter baghouse shall be continuously operated to maximize PM emission reductions, consistent with manufacturer's specification, the operational design and maintenance limitations of the units, and good engineering practice. [Consent Decree entered September 24, 2007, Section VII.A]
- b. Beginning on December 31, 2012, the permittee shall continuously operate the SCR at all times that 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. Beginning on June 30, 2012, the permittee shall continuously operate the FGD at all times that Unit 2 is in operation, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for the FGD or equivalent technology, for minimizing emissions to the extent practicable. [Consent Decree entered September 24, 2007, paragraph 67]
- d. The control equipment 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]
- e. Pursuant to 401 KAR 52:020, Section 10, records regarding the maintenance of the control equipment shall be maintained.
- f. See Section E Source Control Equipment Requirements for additional requirements.

Emissions Unit 03 - Coal Handling Operations

Description:Truck and railcar unloading, receiving hoppers (two), coal conveyers/transfer points
(five), reclaim hoppers, crusher (one), coal stacker, coal stockpile, and yard area.
DusTreat CF9156 and DusTreat DC6109; additives to reduce fugitive emissions.Operating Rate:600 tons/hrConstructionDiscrete 1070

Commenced: Prior to 1970

APPLICABLE REGULATIONS:

401 KAR 63:010 Fugitive Emissions, applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

1. **Operating Limitations:**

- a. Pursuant to 401 KAR 63:010, Section 3, 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:
 - 1) Application and maintenance of asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;
 - 2) 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;
 - 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. Pursuant to 401 KAR 63:010, Section 3, 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.

2. <u>Emission Limitations:</u>

N/A

3. <u>Testing Requirements:</u>

N/A

4. Specific Monitoring Requirements:

Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the amount of coal and limestone received and processed through each piece of conveying or handling equipment, including stockpiles, on a weekly basis. Visible emissions from each piece of equipment or operation described for this item or group shall be monitored daily during daylight hours to determine whether conditions appear to be normal or abnormal.

5. Specific Record Keeping Requirements:

Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the amount of coal and limestone received and processed through each piece of conveying or handling equipment, including stockpiles, on a weekly basis.

6. <u>Specific Reporting Requirements:</u>

See Section F - Monitoring, Recordkeeping, and Reporting Requirements, for further requirements.

7. <u>Specific Control Equipment Operating Conditions:</u>

- a. Pursuant to 401 KAR 50:055, Section 2, the control equipment (including but not limited to hoods, enclosures, drop chute, water truck, sweeper, and water spray system) shall be operated to maintain compliance with subsection 1. <u>Operating Limitations</u> consistent with manufacturer's specifications and/or standard engineering practices.
- b. Pursuant to 401 KAR 52:020, Section 10, records regarding the maintenance of the control equipment shall be maintained.
- c. See Section E Source Control Equipment Requirements for additional requirements.

Emissions Unit 04 - Unit 2 Cooling Tower

Description:

Operating Rate: 150,000 gallons per minute Construction Commenced: 2007

APPLICABLE REGULATIONS:

401 KAR 63:010 Fugitive Emissions, applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

NON-APPLICABLE REGULATIONS:

40 CFR Part 63 Subpart Q, National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers

1. **Operating Limitations:**

- a. Pursuant to 401 KAR 63:010, Section 3, the permittee shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished, or a road to be used without taking reasonable precaution to prevent particulate matter from becoming airborne.
- b. Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne.
- c. Pursuant to 401 KAR 63:010, Section 3, 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.
- d. Pursuant to 40 CFR 63.400(a), to preclude applicability of 40 CFR 63, Subpart Q, the permittee shall not use chromium-based water treatment chemicals in the cooling towers.

Compliance Demonstration Method:

Refer to subsection 4. <u>Specific Monitoring Requirements</u>, 7. <u>Specific Control Equipment</u> <u>Operating Conditions</u> and Section F.9 for compliance reporting.

2. <u>Emission Limitations:</u>

N/A

3. <u>Testing Requirements:</u>

N/A

4. <u>Specific Monitoring Requirements:</u>

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

5. <u>Specific Record Keeping Requirements:</u>

- a. Pursuant to 401 KAR 52:020, Section 10, to demonstrate continuing compliance with 1. Operating Limitations, the permittee shall maintain copies of the initial notification and the notification of compliance status as required by 6. Specific Reporting Requirements for a period of at least 5 years onsite.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the manufacturer's design of the drift eliminators.
- c. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of maximum pumping capacity and monthly records of the total dissolved solids content.

6. <u>Specific Reporting Requirements:</u>

See Section F - Monitoring, Recordkeeping, and Reporting Requirements, for further requirements.

7. <u>Specific Control Equipment Operating Conditions:</u>

- a. Pursuant to 401 KAR 50:055, Section 2, 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.
- b. See Section E Source Control Equipment Requirements for additional requirements.

Emissions Unit 05 - Two Fly Ash and Lime Waste Silos A and B (Pneumatic Loading)

Description:

| Operating Rate: | 31 tons/hr, each |
|-------------------------|--------------------------------------|
| Construction Commenced: | 1993 |
| Control Equipment: | Fabric Filter baghouse for each silo |

APPLICABLE REGULATIONS:

401 KAR 59:010 New Process Operations, applicable to each affected facility or source associated with a process operation commenced after July 2, 1975 which is not subject to another emission standard with respect to particulates.

40 CFR Part 64 Compliance Assurance Monitoring for particulate matter from each silo.

1. **Operating Limitations:**

N/A

2. <u>Emission Limitations:</u>

a. Pursuant to 401 KAR 59:010, Section 3(2), particulate matter emissions into the open air from each silo shall not exceed 17.31P^{0.16} lb PM/hour, where P is the process rate in tons/hour each.

Compliance Demonstration Method:

The permittee may assure compliance with the particulate standard by calculating emissions using the following formula:

 $lb PM / hour = \frac{Monthly material \ processes(tons)}{Monthly \ Hours of \ Operation} \times Emission \ Factor \ lb \ PM / ton$

Emission Factor = 0.27 lb PM/ton or Division approved factor obtained during testing.

b. Pursuant to 401 KAR 59:010, Section 3(1)(a), visible emissions from any stack shall not equal or exceed twenty (20) percent opacity based on a six-minute average.

Compliance Demonstration Method:

See subsection 4. <u>Specific Monitoring Requirements</u> for monitoring rates and visual inspection of controls.

3. <u>Testing Requirements:</u>

Pursuant to 401 KAR 52:020, Section 10, the permittee shall determine the opacity of emissions from each silo while being loaded by US EPA Reference Method 9 weekly, or as required by subsection **4**. <u>Specific Monitoring Requirements</u>, or upon request by the Division.

4. Specific Monitoring Requirements:

- a. The permittee shall monitor the processing rate and hours of operation on a monthly basis [401 KAR 52:020, Section 10].
- b. Pursuant to 40 CFR 64, the permittee shall comply with the requirements specified in Table 3 below to monitor emissions of particulate matter:

| T 11 | | |
|--------------------------|--|---|
| Indicator: | Pressure Drop: a measurement of the resistance of flow across the fabric filter as the gas passes through the filter and filter cake. | Visible Emissions: these emissions are related to the size and concentration of particles in the exhaust gas. |
| Measurement Approach: | Pressure drop is monitored using continuous differential pressure monitoring at each control device while the unit is operating. | A qualitative visual observation (QVO) is conducted daily at each operating emission point, by knowledgeable observers. |
| Indicator: | While the process is operating, an alarm will be set to alert the operator if the 15-minute average pressure drop measurement is outside the differential pressure range of two to six inches of water is exceeded. The 15-minute average will not include periods of startup or shutdown. Pressure Drop outside of the range will trigger a QVO of the exhaust stack to determine if an excursion has occurred. | While operating, a daily QVO will be complete. Presence of visible emissions from an operating emission point will trigger a qualitative determination of opacity using the procedures of US EPA Reference Method 9 (RM-9). |
| Excursion defined: | An excursion is defined as operation outside the pressure drop ranges specified by the manufacturer and the presence of visible emissions during the follow-up QVO. | An excursion is defined as visible emissions equal to or greater than 20 percent opacity based on a six-minute average using the procedures of RM-9. |
| Excursion Follow-up: | Following an excursion, the plant will implement corrective measures to restore the pressure drop within the indicator range. Any maintenance and repairs will be performed on the control device to restore the baghouse to operate as intended per the manufacturer's recommendations. | Following an excursion, the plant will implement corrective measures to restore the indicator below the indicator range. Any maintenance and repairs will be performed on the control device to restore the baghouse to operate as intended per the manufacturer's recommendations. |

Table 3- Particulate Matter CAM Approach for Emission Unit 05

4. <u>Specific Monitoring Requirements</u> (Continued):

| QA/QC Procedures: | Equipment is repaired or replaced as needed. Need for repair or replacement is defined when the pulse jet baghouse is not operating as required by the manufacturer's specification | The person responsible for making QVO and Reference Method 9 observations will be certified in accordance with Reference Method 9. | |
|-----------------------|--|---|--|
| Monitoring Frequency: | Continuous | Daily | |
| Data Collection | The source Data Acquisition | Weekly QVOs shall be maintained and | |
| Procedures: | Handling System (DAHS) records | shall include the time and date of the | |
| | a data point every minute from | assessment, an indication of any visible | |
| | each control device during | emissions and the name of the person | |
| | loading. The 15-minute average | conducting the QVO. | |
| | will not include periods of startup | | |
| | or shutdown. | Reference Method 9 results will be | |
| | | documented in the format shown in | |
| | | Figure 9-1of Reference Method 9. | |

5. <u>Specific Record Keeping Requirements:</u>

- a. Pursuant to 401 KAR 52:020, Section 10, permittee shall maintain records of the weekly material processed and weekly hours of operation shall be maintained for five years.
- b. Pursuant to 40 CFR Part 64, 401 KAR 52:020, Section 10, the permittee shall record each excursion, excursion follow-up, and any QA/QC procedures as described in Table 3. under 4.b. Specific Monitoring Requirements, including dates and any corrective actions taken, in a logbook (in written or electronic format). The permittee shall keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Division upon request.
- c. Pursuant to 40 CFR Part 64, 401 KAR 52:020, Section 10, the permittee shall maintain records related to pressure drop (or other continuous recording device) charts and shall keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Division upon request.

6. <u>Specific Reporting Requirements:</u>

See Section F - Monitoring, Recordkeeping, and Reporting Requirements.

7. <u>Specific Control Equipment Operating Conditions:</u>

a. Pursuant to 401 KAR 50:055, Section 2, the baghouses shall be operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and / or standard operating practices.

7. <u>Specific Control Equipment Operating Conditions</u> (Continued):

- b. Pursuant to 401 KAR 52:020, Section 10, records regarding the maintenance of the baghouses shall be maintained.
- c. See Section E Source Control Equipment Requirements for additional requirements.

Emissions Unit 07 - Coal Crushing Facility (Run of Mine Coal Handling Facility)

| Description: | Equipment includes: A & T Model 425 Feeder, Crusher Feeder Conveyor, Jeffrey |
|------------------------|--|
| | Model 59FT Flextooth Crusher, Crushed Coal Conveyor and Discharge Chute. |
| Operating Rate: | 400 tons/hr |
| Construction | |
| Commenced: | December, 1998 |

APPLICABLE REGULATIONS:

401 KAR 60:005 Standards of Performance for Coal Preparation Plants, incorporating by reference 40 CFR 60 Subpart Y for emissions units commenced after October 24, 1974. The provisions of this subpart are applicable to any of the following affected facilities in coal preparation plants which process more than 181 Mg (200 tons) per day: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems, and coal transfer and loading systems.

1. **Operating Limitations:**

N/A

2. Emission Limitations:

Pursuant to 401 KAR 60:005, Section 3 and 40 CFR 60.252, 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.

3. <u>Testing Requirements:</u>

Pursuant to 40 CFR 60.254, US EPA Reference Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity at least monthly, or more frequently if requested by the Division.

4. <u>Specific Monitoring Requirements:</u>

Pursuant to 401 KAR 52:020, Section 10, the permittee shall perform a qualitative visual observation of the opacity of emissions from each emissions unit on a weekly basis and maintain a log of the observations. If visible emissions from any stack are seen, the permittee shall determine the opacity of emissions using US EPA Reference Method 9 and initiate an inspection of the control equipment and make any necessary repairs.

5. <u>Specific Record Keeping Requirements:</u>

Pursuant to 401 KAR 52:020, Section 10, records of coal processed shall be maintained for emissions inventory purposes.

6. <u>Specific Reporting Requirements:</u>

See Section F - Monitoring, Recordkeeping, and Reporting Requirements.

Emissions Unit 08 - Emergency Diesel Generator

| Description: | CAT 3516, No. 2 diesel fuel oil-fired internal combustion engine. |
|----------------------------|---|
| Fuel: | No. 2 Diesel Fuel Oil |
| Maximum Continuous Rating: | 12.18 MMBtu/hr |
| Construction Commenced: | 1998 |

APPLICABLE REGULATIONS:

40 CFR Part 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, existing stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, that was installed before December 19, 2002.

NON-APPLICABLE REGULATIONS:

40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), applicable to Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE is manufactured after April 1, 2006.

1. **Operating Limitations:**

- a. Pursuant to 40 CFR 63.6640(f), the permittee must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (3) of 40 CFR 63.6640(f), as written below. In order for the engine to be considered an emergency stationary RICE under 40 CFR 63, Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described below, is prohibited. If the engine is not operated according to the requirements below, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
 - 1) There is no time limit on the use of emergency stationary RICE in emergency situations.
 - 2) The permittee may operate the emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

1. **Operating Limitations** (Continued):

- i) Emergency stationary RICE 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 owner or operator 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 owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
- ii) Emergency stationary RICE 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 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.
- iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- 3) Emergency stationary RICE located at major sources of HAP 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 (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
- b. Pursuant to 40 CFR 63.6604(b), beginning January 1, 2015, if the existing emergency CI stationary RICE has a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder and uses diesel fuel and 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), the permittee must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

2. <u>Emission Limitations:</u>

N/A

3. <u>Testing Requirements:</u>

N/A

4. Specific Monitoring Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the amount of fuel oil usage (gallons) for the generator on a monthly basis.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the hours of operation for the generator on a monthly basis.

5. Specific Record Keeping Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the amount of fuel oil usage (gallons) for the generator on a monthly basis.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the hours of operation of the generator on a monthly basis.

6. <u>Specific Reporting Requirements:</u>

- a. Pursuant to 40 CFR 63.6650(h), if the permittee has an emergency engine that 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), the permittee must submit an annual report according to the requirements in 40 CFR 63.6650(h).
- b. See Section F Monitoring, Recordkeeping, and Reporting Requirements for further requirements.

Emissions Unit 09 - Pebble Lime, Fly Ash and Waste Product Handling System

| EU: | 09-01 | 09-03 | 09-04 | 09-05 | 09-06 | 09-07 | 09-08 |
|--------------|------------------------|-----------|--------|---------|----------|-----------|--------|
| Description: | Fly Ash and | Vacuum | Pebble | Pebble | Lime | Hydrated | Lime |
| | Waste | Systems | Lime | Feed | Hydrator | Lime Silo | Dust |
| | Product Silo | #1 and #2 | Silo | Silos A | A and B | | Silo |
| | C-capacity | | | and B | | | |
| | $108,000 \text{ ft}^3$ | | | | | | |
| Operating | 80 | 40 each | 19 | 25 each | 19 each | 50 | 1 |
| Rate | | | | | | | |
| (tons/hr): | | | | | | | |
| Control | Fabric Filter | Fabric | Fabric | Fabric | Fabric | Fabric | Fabric |
| Devices: | | Filter | Filter | Filter | Filter | Filter | Filter |
| Construction | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 |
| Commenced: | | | | | | | |

APPLICABLE REGULATIONS:

401 KAR 59:010 New Process Operations. Applicable to each affected facility or source associated with a process operation commenced after July 2, 1975, which is not subject to another emission standard with respect to particulates.

40 CFR Part 64 Compliance Assurance Monitoring applies to PM emissions from Emission Unit 09-03 (Vacuum System), Emission Unit 09-04 (Pebble Lime Silo) and Emission Unit 09-07 (Hydrated Lime Silo)

1. **Operating Limitations:**

The permittee shall operate fabric filters with a minimum design specification of 0.005 gr/dscf. See **7.** <u>Specific Control Equipment Operating Conditions</u> for additional requirements.

2. <u>Emission Limitations:</u>

a. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than 20 percent opacity [401 KAR 59:010].

Compliance Demonstration Method: Refer to 3. Testing Requirements.

b. Particulate matter emissions from each stack or control device shall not exceed the emission limits listed in Table 4:

2. <u>Emission Limitations</u> (Continued):

Table 4.

| Emission | Description | Emission Limit | |
|----------|---------------------------|-------------------------------|--|
| Unit | | | |
| 09-01 | New Waste Product Silo #1 | 17.31P ^{0.16} lbs/hr | |
| 09-03 | Vacuum Systems #1 and #2 | $17.31P^{0.16}$ lbs/hr, each | |
| 09-04 | Pebble Lime Silo | 3.59P ^{0.62} lbs/hr | |
| 09-05 | Pebble Feed Silos A and B | $3.59P^{0.62}$ lbs/hr, each | |
| 09-06 | Lime Hydrator A and B | $3.59P^{0.62}$ lbs/hr, each | |
| 09-07 | Hydrated Lime Silo | $17.31P^{0.16}$ lbs/hr | |
| 09-08 | Lime Dust Silo | 3.59P ^{0.62} lbs/hr | |

Where P = process weight rate in tons/hour. "Process weight rate" means a rate established as follows:

- 1) For continuous or long-run steady state operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof. [401 KAR 59:010, Section 2(3)(a)]
- 2) For cyclical or batch unit operations, or unit processes, the total process weight for a period that covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such a period. [401 KAR 59:010, Section 2(3)(b)]
- 3) Where the nature of any process operation or the design of any equipment is such as to permit more than one (1) interpretation of this definition, the interpretation which results in the minimum value for allowable emission shall apply. [401 KAR 59:010, Section 2(3)(c)]

Compliance Demonstration Method: Refer to 3. Testing Requirements.

3. <u>Testing Requirements:</u>

a. The permittee shall demonstrate compliance with emission standards within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup [401 KAR 50:045, Section 1]. Subsequent compliance demonstrations shall be calculated based upon emission factors obtained from testing and the amount of material processed on a monthly basis, as follows:

 $Emissions (lbs / hr) = \frac{Monthly Material Processed (tons)}{Monthly Hours of Operation} \quad x \quad EmissionFactor (lbs / ton)$

b. In conducting performance tests the permittee shall use as reference methods and procedures the test methods in 40 CFR Part 60 Appendix A.

3. <u>Testing Requirements</u> (Continued):

c. The permittee shall determine the opacity of emissions from each stack by US EPA Method 9 weekly, or more frequently if requested by the Division. [401 KAR 52:020, Section 10]

4. Specific Monitoring Requirements:

a. Applicable to Emission Unit 09-03 (Vacuum System #1 and #2), Emission Unit 09-04 (Pebble Lime Silo) and Emission Unit 09-07 (Hydrated Lime Silo) only: Pursuant to 40 CFR 64.4(a)(1) and the CAM plan filed with the renewal application, the permittee shall comply with the requirements specified in Table 5. below.

| Table 5. Particulate Matter CAM Approach for Emission Unit 09-03, 09-04 and 09-07 |
|---|
|---|

| Indicator: | Progura Drop: a magguramant | Visible Emissions: these | | |
|----------------------------------|--|---|--|--|
| indicator. | Pressure Drop: a measurement of the resistance of flow across | emissions are related to the | | |
| | | | | |
| | the fabric filter as the gas | size and concentration of | | |
| | passes through the filter and | particles in the exhaust gas. | | |
| | filter cake. | | | |
| Measurement Approach: | Pressure drop is monitored | A qualitative visual | | |
| | using continuous differential | observation (QVO) is | | |
| | pressure monitoring at each | conducted daily at each | | |
| | control device while the unit is | operating emission point by | | |
| | operating. | knowledgeable observers. | | |
| Indicator: | While the process is operating, | While operating, a daily QVO | | |
| | an alarm will be set to alert the | will be complete. Presence of | | |
| | operator if the 15-minute | visible emissions from an | | |
| | average pressure drop | operating emission point will | | |
| | measurement is outside the | trigger a qualitative | | |
| | differential pressure range of | determination of opacity using | | |
| | two to six inches of water is | the procedures of US EPA | | |
| | exceeded. The 15-minute | Reference Method 9 (RM-9). | | |
| | average will not include | itererence incluica y (iter y). | | |
| | periods of startup or shutdown. | | | |
| | Pressure Drop outside of the | | | |
| | - | | | |
| | range will trigger a QVO of the exhaust stack to determine if | | | |
| | | | | |
| | an excursion has occurred. | | | |
| Manufacturer's specified ranges: | | | | |
| | | 9-03 Vacuum System #2: Exhauster B Vent 5 to 7 inches water | | |
| | 09-04 Pebble Lime Silo: Vent 0 to 8 inches water | | | |
| | 09-07 Hydrated Lime Silo: Vent | 0 to 8 inches water | | |

4. <u>Specific Monitoring Requirements</u> (Continued):

| | | A |
|-----------------------------|--|--|
| Excursion defined: | An excursion is defined as operation outside the pressure drop ranges specified by the manufacturer and the presence of visible emissions during the follow-up QVO. | An excursion is defined as visible emissions equal to or greater than 20 percent opacity based on a six-minute average using the procedures of RM-9. |
| Excursion Follow-up: | Following an excursion, the plant will implement corrective measures to restore the pressure drop within the indicator range. Any maintenance and repairs will be performed on the control device to restore the fabric filters to operate as intended per the manufacturer's recommendations. | Following an excursion, the plant will implement corrective measures to restore the indicator below the indictor range. Any maintenance and repairs will be performed on the control device to restore the baghouse to operate as intended per the manufacturer's recommendations. |
| QA/QC Procedures: | Equipment is repaired or replaced as needed. Need for repair or replacement is defined when the fabric filters are not operating as required by the manufacturer's specification | The person responsible for making QVO and Reference Method 9 observations will be certified in accordance with Reference Method 9. |
| Monitoring Frequency: | Continuous | Daily |
| Data Collection Procedures: | The source Data Acquisition Handling System (DAHS) records a data point every minute from each control device during loading. The 15- minute average will not include periods of startup or shutdown. | Weekly QVOs shall be maintained and shall include the time and date of the assessment, an indication of any visible emissions and the name of the person conducting |
| | | Reference Method 9. |

b. The permittee shall monitor the amount in tons of material processed and waste product produced and the hours of operation for each unit on a monthly basis. [401 KAR 52:020, Section 10]

5. <u>Recordkeeping Requirements:</u>

- a. The permittee shall record each excursion, excursion follow-up, and any QA/QC procedures as described in Table 5. under **4.a.** <u>Specific Monitoring Requirements</u>, Table 5 above, including dates and any corrective actions taken, in a logbook (in written or electronic format). The permittee shall keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Division upon request. [40 CFR Part 64, 401 KAR 52:020, Section 10]
- b. The permittee shall maintain the records specified in **4.a** <u>Specific Monitoring Requirements</u>, Table 5 above. [40 CFR Part 64, 401 KAR 52:020, Section 10]
- c. The permittee shall maintain records of the amount in tons of material processed and waste product produced the hours of operation for each unit on a monthly basis. [401 KAR 52:020, Section 10]

6. <u>Specific Reporting Requirements:</u>

- a. The permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards in 2. <u>Emission Limitations</u>, including reports of opacity observations. [401 KAR 52:020, Section 10]
- b. Refer to Section F Monitoring, Recordkeeping, and Reporting Requirements for additional requirements.

7. <u>Specific Control Equipment Operating Conditions:</u>

- a. Control equipment shall be operated consistent with manufacturer's specifications and standard operating practices to maintain compliance with permitted emission limits and. [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 Requirement for additional requirements.

Emissions Unit 10 - Paved Roadways

| Description: | Plant Paved Roadways used as Haul Roads | |
|---------------------|--|--|
| Control Equipment: | Wet suppression as needed. | |
| Construction | | |
| Commenced: | Prior to 1970, additional roads and traffic added estimated 2010 | |

APPLICABLE REGULATIONS:

401 KAR 63:010 Fugitive Emissions, applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

1. **Operating Limitations:**

- a. Pursuant to 401 KAR 63:010, Section 3, the permittee shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished, or a road to be used without taking reasonable precaution to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:
 - 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 [401 KAR 63:010, Section 3].
- 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].

1. **<u>Operating Limitations</u>** (Continued):

Compliance Demonstration Method:

Refer to 4. <u>Specific Monitoring Requirements</u>, 7. <u>Specific Control Equipment Operating</u> <u>Conditions</u> and Section F.9 for compliance reporting.

2. <u>Emission Limitations:</u>

N/A

3. <u>Testing Requirements:</u>

N/A

4. Specific Monitoring Requirements:

Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the application of wet suppression.

5. <u>Specific Recordkeeping Requirements:</u>

Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain a log of the date, time, and results of the monitoring required in **4**. <u>Specific Monitoring Requirements</u>.

6. Specific Reporting Requirements:

See Section F – Monitoring, Recordkeeping, and Reporting Requirements.

7. <u>Specific Control Equipment Operating Conditions:</u>

- a. Wet suppression shall be used to ensure haul roads are in compliance with the applicable requirements of 401 KAR 63:010 [401 KAR 50:055].
- b. Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E Source Control Equipment Requirements for additional requirements.

Emissions Unit 12 – Communication Tower Emergency Generator

| Description: | Olympian G35LG |
|----------------------------|----------------|
| Primary Fuel: | Propane |
| Maximum Continuous Rating: | 0.52 MMBtu/hr |
| Manufacture Date: | 2010 |
| Construction Commenced: | 2011 |

APPLICABLE REGULATIONS:

- **40 CFR Part 60 Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines,** applicable to the owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 kW (25 HP).
- 40 CFR Part 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, new stationary RICE with a site rating of less than 500 brake (HP) located at a major source of HAP emissions, that was constructed after June 12, 2006.

1. **Operating Limitations:**

- a. Pursuant to 40 CFR 63.6590(c), by meeting the requirements of 40 CFR 60, Subpart JJJJ, for spark ignition engines, no further requirements apply for such engines under 40 CFR 63, Subpart ZZZZ.
- b. Pursuant to 40 CFR 60.4234, the permittee must operate and maintain stationary SI ICE that achieve the emission standards as required in 40 CFR 60.4233 over the entire life of the engine.
- c. Pursuant to 40 CFR 60.4236(c), the permittee may not install engines that do not meet the applicable requirements in 40 CFR 60.4233 after January 1, 2011.
- d. Pursuant to 40 CFR 60.4243(d) the permittee must operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) of this section, is prohibited. If the engine is not operated according to the requirements in paragraphs (d)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

1. **<u>Operating Limitations</u>** (Continued):

- 1) There is no time limit on the use of emergency stationary ICE in emergency situations.
- 2) The emergency stationary ICE may be operated for any combination of the purposes specified in paragraphs (d)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (d)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (d)(2).
 - 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 owner or operator 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 owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
 - 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), 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.
 - 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.
- 3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in nonemergency 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 (d)(2) of this section. Except as provided in paragraph (d)(3)(i) of this section, the 50 hours per 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.
 - i) The 50 hours per year for nonemergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
 - A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

1. **<u>Operating Limitations</u>** (Continued):

- B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- D) The power is provided only to the facility itself or to support the local transmission and distribution system.
- E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.
- 4) Pursuant to 40 CFR 60.4246, the permittee shall comply to the General Provisions in 40 CFR 60.1-60.12, 60.14-60.17 and 60.19.

2. <u>Emission Limitations:</u>

Pursuant to 40 CFR 60.4233(c) and 60.4231(c), the permittee shall certify their emergency stationary SI ICE to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 90.

Compliance Demonstration Method:

- 1) If the engine is operated according to the manufacturer's emission-related written instructions, the permittee must keep records of conducted maintenance to demonstrate compliance, and no performance testing is required. The permittee must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply. If the engine settings are adjusted according to and consistent with the manufacturer's instructions, the stationary SI internal combustion engine will not be considered out of compliance. [40 CFR 60.4243(a)(1)]
- 2) If the certified stationary SI internal combustion engine is not operated and maintained according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, compliance must be demonstrated by keeping a maintenance plan and records of conducted maintenance and to the extent practicable, the engine must be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions, and no performance testing will be required. [40 CFR 60.4243(a)(2)]

3. <u>Testing Requirements:</u>

Pursuant to 40 CFR 60.4243(f), if the stationary SI internal combustion engine purchased is a noncertified engine or is not operated and maintained according to the manufacturer's written emission-related instructions, initial performance testing is required as indicated in this section, but no subsequent performance testing is required unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a).

4. Specific Monitoring Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the amount of fuel used at the generator on a monthly basis.
- b. Pursuant to 40 CFR 60.4237(c), the permittee must install a non-resettable hour meter upon startup of the emergency engine.

5. Specific Record Keeping Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the amount of fuel usage (gallons) for the generator on a monthly basis.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the hours of operation of the generator on a monthly basis.
- c. Pursuant to 40 CFR 60.4245(b), the permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

6. Specific Reporting Requirements:

- a. Pursuant to 40 CFR 60.4245(a), the permittee must meet the following notification, reporting and recordkeeping requirements.
 - 1) Maintenance conducted on the engine.
 - 2) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
 - 3) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards.

6. <u>Specific Reporting Requirements</u> (Continued):

b. See Section F - Monitoring, Recordkeeping, and Reporting Requirements for further requirements.

Emission Unit 13 – Fire Pump Engine

| Description: | Scania F674DSJF |
|----------------------------|-----------------------|
| Primary Fuel: | No. 2 Diesel Fuel Oil |
| Maximum Continuous Rating: | 2.02 MMBtu/hr each |
| Construction Commenced: | 1978 |

APPLICABLE REGULATIONS:

40 CFR Part 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, existing stationary RICE with a site rating of less than 500 brake (HP) located at a major source of HAP emissions, that was constructed before June 12, 2006. Compliance date no later than May 3, 2013.

NON-APPLICABLE REGULATIONS:

40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), applicable to Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE is manufactured after April 1, 2006.

1. **Operating Limitations:**

- a. Pursuant to 40 CFR 63.6602 and 40 CFR 63.6625(h), the permittee shall change oil and filter every 500 hours of operation or annually, whichever comes first; inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. During periods of startup the permittee shall minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
- b. Pursuant to 40 CFR 63.6625(f), the permittee must install a non-resettable hour meter if one is not already installed.
- c. Pursuant to 40 CFR 63.6595(a), the permittee shall comply with the applicable emission limitations and operating limitations no later than May 3, 2013.
- d. Pursuant to 40 CFR 63.6625(e)(2) and 63.6640(a), the unit must be operated and maintained according to the manufacturer's emission-related written instructions or the facility's developed maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

1. **Operating Limitations** (Continued):

- e. Pursuant to 40 CFR 63.6605(a) and (b), the permittee must be in compliance with the operating limitations at all times. At all times, these units, including associated air pollution control equipment and monitoring equipment, must be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation 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, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
- f. Pursuant to 40 CFR 63.6625(i), the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in 40 CFR 63.6602. The oil analysis must be performed at the same frequency specified for changing the oil in 40 CFR 63.6602. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.
- g. Pursuant to 40 CFR 63.6640(f), the permittee must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (3) of 40 CFR 63.6640(f), as written below. In order for the engine to be considered an emergency stationary RICE under 40 CFR 63, Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described below, is prohibited. If the engine is not operated according to the requirements below, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
 - 1) There is no time limit on the use of emergency stationary RICE in emergency situations.
 - 2) The permittee may operate the emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

1. **<u>Operating Limitations</u>** (Continued):

- i) Emergency stationary RICE 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 owner or operator 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 owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
- ii) Emergency stationary RICE 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 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.
- iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- 3) Emergency stationary RICE located at major sources of HAP 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 (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
- 4) Pursuant to 40 CFR 63.6604(b), beginning January 1, 2015, if the existing emergency CI stationary RICE has a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder and uses diesel fuel and 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), the permittee must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

2. <u>Emission Limitations:</u>

N/A

3. <u>Testing Requirements:</u>

N/A

4. Specific Monitoring Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the amount of fuel used at the engine on a monthly basis.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the hours of operation for the engine on a monthly basis.

5. <u>Specific Record Keeping Requirements:</u>

- a. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the amount of fuel oil usage (gallons) for the engine monthly basis.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the hours of operation of the engine on a monthly basis.
- c. Pursuant to 40 CFR 63.6640(b), the permittee must report each instance in which an emission limitation or operating limitation was not met, as they apply. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in 40 CFR 63.6650. If the catalyst is changed, the permittee must reestablish the values of the operating parameters measured during the initial performance test. When the values of the operating parameters are reestablish, a performance test must also be conducted to demonstrate that the required emission limitation applicable to the stationary RICE are being met.

6. <u>Specific Reporting Requirements:</u>

- a. Pursuant to 40 CFR 63.6640(e), the permittee shall report each instance in which the requirements, as they apply, in Table 8 to Subpart ZZZZ of Part 63-Applicability of General Provisions to Subpart ZZZZ were not met.
- b. Pursuant to 40 CFR 63.6660, the following records shall be maintained in a form suitable and readily available for expeditious review in hard copy or electronic form for 5 years following the date of each occurrence.
 - 1) Each notification and report that is submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.6655(a)(1)]
 - 2) The occurrence and duration of each malfunction of operation. [40 CFR 63.6655 (a)(2)]

6. <u>Specific Reporting Requirements</u> (Continued):

- Actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655 (a)(5)]
- 4) Maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE according to the permittee's own maintenance plan. [40 CFR 63.6655 (e)]
- 5) The permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter and must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. [40 CFR 63.6655(f)]
- c. See Section F Monitoring, Recordkeeping, and Reporting Requirements for further requirements.

Emissions Unit 14 – Burnside Service Center Emergency Generator

| Description: | Ford LRG425 |
|----------------------------|---------------|
| Primary Fuel: | Propane |
| Maximum Continuous Rating: | 0.45 MMBtu/hr |
| Construction Commenced: | 2005 |

APPLICABLE REGULATIONS:

40 CFR Part 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, existing stationary RICE with a site rating of less than 500 brake (HP) located at a major source of HAP emissions, that was constructed before June 12, 2006. Compliance date no later than October 19, 2013.

NON-APPLICABLE REGULATIONS:

40 CFR Part 60 Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, applicable to owners and operators of stationary spark ignition (SI) internal combustion engines (ICE) that commence construction after June 12, 2006

1. **Operating Limitations:**

- a. Pursuant to 40 CFR 63.6602, the permittee shall change oil and filter every 500 hours of operation or annually, whichever comes first, inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary, inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- b. Pursuant to 40 CFR 63.6595(a), the permittee shall comply with applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.
- c. Pursuant to 40 CFR 63.6605 (a) and (b), the permittee must be in compliance with the operating limitations at all times. At all times, these units, including associated air pollution control equipment and monitoring equipment, must be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation 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, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
- d. Pursuant to CFR 63.6625(e) and 63.6640(a), the unit must be operated and maintained according to the manufacturer's emission-related written instructions or the facility's developed maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

1. **Operating Limitations** (Continued):

- e. Pursuant to 40 CFR 63.6625(f), the permittee must install a non-resettable hour meter if one is not already installed.
- f. Pursuant to 40 CFR 63.6625 (h), the permittee must 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, after which time the emission standards applicable to all times other than startup that apply.
- g. Pursuant to 40 CFR 63.6625(j), If the stationary SI engine is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.
- h. Pursuant to 40 CFR 63.6640(f), the permittee must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (3) of 40 CFR 63.6640(f), as written below. In order for the engine to be considered an emergency stationary RICE under 40 CFR 63, Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described below, is prohibited. If the engine is not operated according to the requirements below, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
 - 1) There is no time limit on the use of emergency stationary RICE in emergency situations.

1. **<u>Operating Limitations</u>** (Continued):

- 2) The permittee may operate the emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
 - i) Emergency stationary RICE 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 owner or operator 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 owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
 - ii) Emergency stationary RICE 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 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.
 - iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- 3) Emergency stationary RICE located at major sources of HAP 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 (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

2. <u>Emission Limitations:</u>

N/A

3. <u>Testing Requirements:</u>

N/A

4. Specific Monitoring Requirements:

Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the amount of fuel used at the generator and the hours of operation on a monthly basis.

5. Specific Record Keeping Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the amount of fuel oil usage (gallons) for the engine operation on a monthly basis.
- b. Pursuant to 40 CFR 63.6655(f), the permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in 40 CFR 63.6640(f)(2)(ii) or (iii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

6. Specific Reporting Requirements:

- a. Pursuant to 40 CFR 63.6640(e), the permittee shall report each instance in which the requirements, as they apply, in Table 8 to Subpart ZZZZ of Part 63-Applicability of General Provisions to Subpart ZZZZ were not met.
- b. Pursuant to 40 CFR 63.6640(b), the permittee must report each instance in which an emission limitation or operating limitation was not met, as they apply. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in 40 CFR 63.6650. If the catalyst is changed, the permittee must reestablish the values of the operating parameters measured during the initial performance test. When the values of the operating parameters are reestablish, a performance test must also be conducted to demonstrate that the required emission limitation applicable to the stationary RICE are being met.
- c. Pursuant to 40 CFR 63.6660, the following records shall be maintained in a form suitable and readily available for expeditious review in hard copy or electronic form for 5 years following the date of each occurrence.
 - 1) Each notification and report that is submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.6655(a)(1)]
 - 2) The occurrence and duration of each malfunction of operation. [40 CFR 63.6655 (a)(2)]

6. <u>Specific Reporting Requirements</u> (Continued):

- Actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655 (a)(5)]
- 4) Maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE according to the permittee's own maintenance plan. [40 CFR 63.6655 (e)]
- d. See Section F Monitoring, Recordkeeping, and Reporting Requirements for further requirements.

Emissions Unit 15 – Leachate Transfer Pump Engine

| Description: | Honda EM6500SX |
|----------------------------|----------------|
| Primary Fuel: | Gasoline |
| Maximum Continuous Rating: | 11.7 HP |
| Manufacture Date: | 2013 |
| Construction Commenced: | 2014 |

APPLICABLE REGULATIONS:

- 40 CFR Part 63Subpart ZZZZ, National Emissions Standards for Hazardous Air
Pollutants for Stationary Reciprocating Internal Combustion Engines,
new nonemergency stationary RICE with a site rating of less than 500 brake
(HP) located at a major source of HAP emissions, that was constructed after
June 12, 2006.
- 40 CFR Part 60 Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, applicable to the owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured on or after July 1, 2008, for nonemergency engines with a maximum engine power less than 500 HP.

1. **Operating Limitations:**

- a. Pursuant to 40CFR 63.6590(c), by meeting the requirements of 40 CFR 60, Subpart JJJJ, for spark ignition engines, no further requirements apply for such engines under 40 CFR 63, Subpart ZZZZ.
- b. Pursuant to 40 CFR 60.4234, the permittee must operate and maintain stationary SI ICE that achieve the emission standards as required in 40 CFR 60.4233 over the entire life of the engine.
- c. Pursuant to 40 CFR 60.4235, the permittee must use gasoline that meets the per gallon sulfur limit in 40 CFR 80.195.
- d. Pursuant to 40 CFR 60.4243(a), the permittee must purchase an engine certified to the emission standards in 40 CFR 60.4231(a), as applicable, for the same engine class and maximum engine power. In addition, the permittee must meet one of the requirements specified in 40 CFR 60.4243(a)(1) and (2).
- e. Pursuant to 40 CFR 60.4246, the permittee shall comply to the General Provisions in 40 CFR 60.1-60.12, 60.14-60.17 and 60.19.

2. <u>Emission Limitations:</u>

Pursuant to 40 CFR 60.4233(a) and 60.4231(a), the permittee shall certify their stationary SI ICE to the certification emission standards in 40 CFR 1054.105, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 1054.

Compliance Demonstration Method:

- The permittee shall comply with the emission standards specified in 40 CFR 60.4233 (a) through (c) by purchasing an engine certified to the emission standards in 40 CFR 63.4231(a) through (c), as applicable, for the same engine class and maximum engine power.
- 2) If the engine is operated according to the manufacturer's emission-related written instructions, the permittee must keep records of conducted maintenance to demonstrate compliance, and no performance testing is required. The permittee must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply. If the engine settings are adjusted according to and consistent with the manufacturer's instructions, the stationary SI internal combustion engine will not be considered out of compliance. [40 CFR 60.4243(a)(1)]
- 3) If the certified stationary SI internal combustion engine is not operated and maintained according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, compliance must be demonstrated by keeping a maintenance plan and records of conducted maintenance and to the extent practicable, the engine must be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions, and no performance testing will be required. [40 CFR 60.4243(a)(2)]

3. <u>Testing Requirements:</u>

N/A

4. <u>Specific Monitoring Requirements:</u>

Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the amount of fuel used by the engine and the hours of operation on a monthly basis.

5. Specific Record Keeping Requirements:

Pursuant to 40 CFR 60.4245(a), the permittee must meet the following notification, reporting and recordkeeping requirements.

a. Maintenance conducted on the engine.

5. <u>Specific Record Keeping Requirements</u> (Continued):

- b. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
- c. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards.

6. <u>Specific Reporting Requirements:</u>

See Section F – Monitoring, Recordkeeping, and Reporting Requirements for further requirements.

SECTION C – INSIGNIFICANT ACTIVITIES

The following listed activities included in the table below 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 must 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.

| | Description: | Generally Applicable Regulation: |
|-----|--|----------------------------------|
| 1. | Storage vessels containing petroleum or organic | N/A |
| | 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. | |
| 2. | Storage vessels containing inorganic aqueous | N/A |
| | liquids, except inorganic acids with boiling points | |
| | below the maximum storage temperature at | |
| | atmospheric pressure. | |
| 3. | #2 oil-fired space heaters or ovens rated at less than | N/A |
| | two million BTU per hour actual heat input, | |
| | provided the maximum sulfur content is less than | |
| | 0.5% by weight. | |
| 4. | Machining of metals, providing total solvent usage | N/A |
| | at the source for this activity does not exceed 60 | |
| | gallons per month. | |
| 5. | Volatile organic compound and hazardous air | N/A |
| | 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, | |
| 6 | and machining fluids. | NT/A |
| 6. | Machining where an aqueous cutting coolant | N/A |
| 7. | continuously floods machining interface. Degreasing operations, using less than 145 gallons | N/A |
| /. | | N/A |
| 8. | per year. Maintenance equipment, not emitting HAPs: | NA |
| 0. | brazing, cutting torches, soldering, welding. | |
| 9. | Underground conveyors. | 401 KAR 63:010 |
| 10. | | 401 KAR 63:010 |
| 10. | Blowdown (sight glass, boiler, compressor, pump, | N/A |
| 11. | cooling tower). | |
| 12. | On-site fire and emergency response training. | |
| | on site me une emergency response training. | |

SECTION C – INSIGNIFICANT ACTIVITIES

| 13. | Grinding and machining operations vented through | 401 KAR 63:010 |
|-----|--|----------------|
| | fabric filters, scrubbers, mist eliminators, or | |
| | electrostatic precipitators (e.g., deburring, buffing, | |
| | polishing, abrasive blasting, pneumatic conveying, | |
| | woodworking). | |
| 14. | Vents from ash transport systems not operated at | N/A |
| | positive pressure. | |
| 15. | Wastewater treatment (for stream less than 1% oil | |
| | and grease). | |
| 16. | Sanitary sewage treatment. | N/A |
| 17. | Heat exchanger cleaning and repair. | N/A |
| 18. | Equipment used exclusively for forging, pressing, | N/A |
| | drawing, stamping, spinning, or extruding metals. | |
| | This does not include emissions due to quenching | |
| | activities. | |
| | Repair and maintenance of ESP, fabric filters, etc. | N/A |
| 20. | Ash handling, ash pond and ash pond maintenance | 401 KAR 63:010 |
| 21. | Laboratory fume hoods and vents used exclusively | N/A |
| | for chemical or physical analysis, or for "bench | |
| | scale production" R&D facilities | |
| 22. | Covered conveyors for coal or coke that convey less | 401 KAR 63:010 |
| | than 401 KAR 63:010 200 tons per day | |
| 23. | | 401 KAR 63:010 |
| | & C) configured for either railcar or truck | |
| 24. | Wood Unloading Area | 401 KAR 63:010 |
| 25. | Portable Backup Conveyer | 401 KAR 63:010 |
| 26. | DusTreat CF9156 in 850 gallon tank | 401 KAR 63:010 |
| 27. | DusTreat DC6109 in 300 gallon tote | 401 KAR 63:010 |
| 28. | Powdered Activated Carbon (PAC) System (500 | 401 KAR 59:010 |
| | lb/hr max) | |
| 29. | Calcium Bromide Fuel Additive System (75 lb/hr | N/A |
| | max) | |

- 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. Particulate, nitrogen oxides, sulfur dioxide, and visible (opacity) emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 CFR 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 NOx |
|--|--|
| 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].

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-Wide12-Month Rolling Tonnage Limitation for SO ₂ |
|--|---|
| July 1, 2011 | 40,000 tons |
| January 1, 2013 | 28,000 tons |

Each of the System-Wide annual emission limits for SO_2 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 SO_2 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. The permittee shall provide to the Division and US EPA sufficient data to demonstrate compliance with Sections D.4 and D.5 as part of its annual compliance certification specified in Section F.9.
- 8. Prior to January 1, 2015, the permittee shall apply for a federal enforceable operating permit issued under the Kentucky SIP for each plant in EKPC System to include a provision, which shall be identical for each permit that contains the allowance surrender requirements and the System-Wide 12 Month Rolling Tonnage limitations set forth in the Consent Decree of September 24, 2007. The permittee shall include a provision in each such application that makes violation of the allowance surrender requirements and a System-Wide 12 Month Rolling Tonnage limitation a violation of each permit for each plant in the EKPC System to which such requirements apply [Consent Decree entered September 24, 2007, Section XVII].
- **9.** Within 180 days after each date established by paragraphs 51, 52, 53, 64 and 65 of the Consent Decree for the permittee to achieve and maintain a certain Emission Rate or 30-Day Rolling Average SO₂ Removal Efficiency at any EKPC System Unit, the permittee shall conduct a performance test that demonstrates compliance with the Emission Rate or Removal Efficiency required by the Consent Decree. Within 45 days of each such performance test, the permittee shall submit the results of the performance test to US EPA at the addresses specified in Section XIX (Notices) of the Consent Decree [Consent Decree entered September 24, 2007, paragraph 125].

- 10. 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 Rolling Average SO₂ Removal Efficiency, the permittee shall notify the US EPA 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].
- 11. Performance standards, emissions limits, and other quantitative standards set by or under the Consent Decree must 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].
- **12.** A "30-Day Rolling Average Emission Rate" for a Unit or "Combined 30-Day Rolling Average Emission Rate" for the Spurlock Plant 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 the Spurlock Plant (in the case of a Combined 30-Day Rolling Average Emission Rate) during an Operating Day and the previous twenty-nine (29) Operating Days; second, sum the total heat input to the Unit (in the case of a 30-Day Rolling Average Emission Rate) or the Spurlock Plant (in the case of a 30-Day Rolling Average Emission Rate) or the Spurlock Plant (in the case of a 30-Day Rolling Average Emission Rate) in mmBTU during the Operating Day and the previous twenty-nine (29) Operating Days; and third, divide the total number of pounds of the pollutant emitted during the thirty (30) Operating Days by the total heat input during the thirty (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 Spurlock 1 and Spurlock 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:

- a. For emissions of NO_x from Spurlock 1 only, EKPC shall include all emissions commencing from the time Spurlock 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;
- b. 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 EKPC 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 (1) 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 (2) those emitted prior to the time that the flue gas has achieved the minimum SCR operational temperature as specified by the catalyst manufacturer;
- c. 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 b; and
- d. 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 EKPC provides notice of the Malfunction to 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 (Malfunction Events) of this Consent Decree. [Consent Decree entered September 24, 2007, paragraph 5].
- **13.** "30-Day Rolling Average SO_2 Removal Efficiency" means the percent reduction in the mass of SO_2 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 this consent decree, 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. EKPC 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. [Consent Decree entered September 24, 2007, paragraph 6].

- 14. "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). [Consent Decree entered September 24, 2007, paragraph 40].
- **15.** "SO₂ Allowance" means "allowance" as defined at 42 U.S.C. § 7651a(3): "an authorization, allocated to an affected unit by the Administrator [of EPA] under [Subchapter IV of the Act], to emit, during or after a specified calendar year, one ton of sulfur dioxide." [Consent Decree entered September 24, 2007, paragraph 45].
- 16. FORCE MAJEURE [Consent Decree entered September 24, 2007, paragraphs 143-151]
 - 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 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.

- <u>145</u>. <u>Failure to Give Notice</u>. 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.
- <u>146.</u> <u>Plaintiff's Response</u>. 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.
- <u>147.</u> <u>Disagreement</u>. 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.
- <u>148.</u> <u>Burden of Proof</u>. 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.
- <u>149.</u> 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 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.
- **17.** Except with respect to the Consent Decree requirements, which are subject to the certain exceptions as provided by the consent decree, or as otherwise specified, the emission limitations herein apply except during periods of startup, shutdown, and malfunction provided that the shutdown ensuing startup of the malfunction were not the result of failure to properly operate and maintain the equipment or careless operation and all reasonable steps were taken to minimize emissions and the impact on air quality from their occurrence. Shutdowns and ensuing startups shall follow manufacturer's recommendations or the source's approved startup and shutdown plan.
- **18.** Source-wide SO₂ emissions shall not exceed 1,800 tons per year on a twelve (12) month rolling total beginning calendar year 2017 and thereafter [40 CFR 51.1203(b) and (e)(1)].

Compliance Demonstration Method:

The permittee shall calculate monthly SO_2 emissions for Emission Units 01, 02, 08, 12, 13, 14, and 15 and maintain a 12-month rolling total of source-wide SO_2 emissions. Monthly SO_2 emissions shall be determined for Emission Units 01 and 02 using SO_2 CEMS. Monthly SO_2 emissions shall be determined for Emission Units 08, 12, 13, 14, and 15 using monthly fuel usage and appropriate emission factors to calculate monthly SO_2 emissions. Appropriate emission factors shall be sourced from either AP-42, manufacturer emissions data, or performance testing.

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 10, 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 (5) 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 10].
- **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.

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

- **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 10].
- 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 shut down, 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 owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [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 10].
- **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:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;

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

- 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 | U.S. EPA Region 4 |
|--------------------------|------------------------|
| London Regional Office | Air Enforcement Branch |
| 875 South Main Street | Atlanta Federal Center |
| London, KY 40741- | 61 Forsyth St. SW |
| 9008 | 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.

SECTION G - GENERAL PROVISIONS

1. <u>General Compliance Requirements</u>

- 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 10].
- 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 10].
- 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 must 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.

1. <u>General Compliance Requirements</u> (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 10].
- 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 10].
- 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 10].
- 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 10].
- 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 10].
- 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.].
- 1. 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 10].

1. <u>General Compliance Requirements</u> (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.

2. <u>Permit Expiration and Reapplication Requirements</u>

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

3. <u>Permit Revisions</u>

- 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, Start-Up, and Initial Compliance Demonstration Requirements

No Construction authorized by this permit.

5. <u>Testing Requirements</u>

- 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 76510 (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.

7. <u>Emergency Provisions</u>

- 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;
 - 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
 - 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. <u>Risk Management Provisions</u>

a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center P.O. Box 1515 Lanham-Seabrook, MD 20703-1515.

b. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION H - ALTERNATE OPERATING SCENARIOS

N/A

SECTION I - COMPLIANCE SCHEDULE

- 1. By September 24, 2008, the permittee shall demonstrate that Unit 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 any such Unit 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.** 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 this paragraph. 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).

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.

SECTION I - COMPLIANCE SCHEDULE (CONTINUED)

- 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. The permittee shall submit each plan, report, or other submission to US EPA whenever such a document is required to be submitted for review or approval pursuant to the Consent Decree. US EPA may approve the submittal or decline to approve it and provide written comments. Within 60 days of receiving written comments from US EPA, the permittee shall either: (a) revise the submittal consistent with the written comments and provide the revised submittal for final approval to US EPA; or (b) submit the matter for dispute resolution, including the period of informal negotiations, under Section XVI (Dispute Resolution) of the Consent Decree. [Consent Decree entered September 24, 2007, Section XIII]
- **5.** Upon receipt of US EPA's final approval of the submittal, or upon completion of the submittal pursuant to dispute resolution, the permittee shall implement the approved submittal in accordance with the schedule specified therein. [Consent Decree entered September 24, 2007, Section XIII]

SECTION J - ACID RAIN PEMIT

1. <u>Statutory and Regulatory Authority:</u>

In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Kentucky Environmental and Public Protection Cabinet, Division for Air Quality issues this permit pursuant to 401 KAR 52:020, Title V Permits, 401 KAR 52:060, Acid Rain Permit, and 40 CFR Part 76 (Emission Units 01 and 02).

2. <u>Permit Requirements:</u>

This Acid Rain Permit covers Acid Rain Units 01 and 02 at the Cooper Station. Units 01 and 02 are coal-fired electric generating units. The Acid Rain Permit Application and NO_X Compliance Plan previously received are hereby incorporated into and made part of this permit and the permittee must comply with the standard requirements and special provisions set forth in the application [40 CFR 72.9(a)(2)].

3. Acid Rain Program Emission and Operating Limitations:

The applicable Acid Rain emission limitations for the permittee are set in 40 CFR 73.10, Table 2, and 40 CFR 76 and they are tabulated in the table below:

| Plant Name: John S. Coop Year for SO ₂ Allowances Pursuant to 40 CFR Part 73.10 | er Station 2012 | 2013 | 2014 | 2015 | 2016 |
|---|--------------------|--------|--------|--------|--------|
| Emissions Unit 01 | 3,216* | 3,216* | 3,216* | 3,216* | 3,216* |
| Emissions Unit 02 | 6,619* | 6,619* | 6,619* | 6,619* | 6,619* |

NO_x Limits and Requirements

Pursuant to 40 CFR 76, the Kentucky Division for Air Quality approves a NO_X standard emissions limitation compliance plan for Units 01 and 02. This plan is effective for calendar year 2011 through 2015. Under the NO_X compliance plan, annual average NO_X emission rate for each year, determined in accordance with 40 CFR 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.

In addition to the described NO_X compliance plan, this unit shall comply with all other applicable requirements of 40 CFR 76, including the duty to reapply for a NO_X compliance plan and requirements covering excess emissions.

^{*} 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 - ACID RAIN PEMIT (CONTINUED)

4. <u>Consent Decree Requirements:</u>

For each calendar year beginning with calendar year 2008; the permittee shall surrender to US EPA, or transfer to a nonprofit third party selected by permittee for surrender, SO_2 Allowances allocated to EKPC System Units that are surplus to its Clean Air Act SO_2 Allowance-holding requirements for the EKPC System Units and New Units, collectively, for that year. The permittee shall make such surrender annually, within 45 days of permittee's receipt of US EPA of the Annual Deduction Reports for SO_2 . Any surrender need not include the specific SO_2 Allowances that were allocated to EKPC System units, so long as permittee surrenders SO_2 Allowances that are from the same year or an earlier year and that are equal to the number required to be surrendered under paragraph 72 of the September 24, 2007 Consent Decree.

The requirements and procedures for surrender of SO_2 allowances are set forth in the September 24, 2007 Consent Decree as permanent injunction provisions. Therefore, paragraphs 71, 72, 73, 74 and 76 and associated definitions of the September 24, 2007 Consent Decree are incorporated into this permit as if fully set forth herein.

5. <u>Comments, Notes, and Justifications</u>:

Affected units are two dry bottom wall-fired boilers.

6. <u>Permit Application:</u>

The Acid Rain Permit Application and CAIR Permit Application are a part of this permit and the source must comply with the standard requirements and special provisions set forth in the applications.

SECTION K – CLEAN AIR INTERSTATE RULE (CAIR)

1. <u>Statement of Basis</u>

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100, the Kentucky Energy and Environment 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. <u>CAIR Application</u>

The CAIR application for two electrical generating units was received on February 26, 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. <u>Comments, notes, justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.</u>

Affected units are one (1) pulverized coal-fired, dry-bottom, wall-fired boiler (Unit 1), with a maximum continuous rating of 1,080 MMBtu/hr; and one (1) pulverized coal-fired, drybottom, wall-fired boiler (Unit 2), with a maximum continuous rating of 2,089 MMBtu/hr. 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. <u>Summary of Actions</u>

The CAIR Permit is being issued as part of the revised Title V permit for this source. Public, affected state, and US EPA review shall 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.

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 SO_2 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 | Х | | | | | |
| NO _X | Х | | | | | |
| Heat input | Х | | | | | |

| 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 | Х | | | | | |
| NO _X | Х | | | | | |
| Heat input | Х | | | | | |

- 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 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 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, 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 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 AAAAA 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 AAAAA 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.
 - 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 $\ensuremath{\text{NO}_X}$ 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 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.
- 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.

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.

- 1) 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).
- 2) 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.
 - 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 BBBBB 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 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.
 - 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 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.

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 SO_2 Group 1 unit at the source shall hold the TR SO_2 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.
 - 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 SO_2 emissions from all TR SO_2 Group 1 units at TR SO_2 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.
- 3) Compliance periods.
 - 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 SO_2 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 SO_2 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).

e. Additional recordkeeping and reporting requirements.

- 1) Unless otherwise provided, the owners and operators of each TR SO_2 Group 1 source and each TR SO_2 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.

Commonwealth of Kentucky Energy and Environment Cabinet Department for Environmental Protection Division for Air Quality 200 Fair Oaks Lane, 1st Floor Frankfort, Kentucky 40601 (502) 564-3999

Final

AIR QUALITY PERMIT Issued under 401 KAR 52:020

| Permittee Name: | Big Rivers Electric Corporation-D.B. Wilson Station |
|---|--|
| Mailing Address: | 201 Third Street, P.O. Box 24 Henderson, KY 42420 |
| Source Name: | Big Rivers Electric Corporation-D.B. Wilson Station |
| Mailing Address: | P.O. Box 190 Island, KY 42350 |
| Source Location: | State Hwy. 85 Island, KY 42305 |
| Permit: | V-16-013 |
| Agency Interest: | 3319 |
| Activity: | APE20110001 |
| Review Type: | Title V, Operating |
| Source ID: | 21-183-00069 |
| Regional Office: | Owensboro Regional Office |
| County: | 3032 Alvey Park Dr. W., Suite 700 Owensboro, KY 42303 (270) 687-7304 Ohio |
| Application Complete Date: Issuance Date: | March 29, 2012 June 20, 2016 |

June 20, 2021

Sean alteri

Sean Alteri, Director Division for Air Quality

Version 10/16/13

Expiration Date:

TABLE OF CONTENTS

| SECTION | ISSUANCE | PAGE |
|--|----------|------|
| A. PERMIT AUTHORIZATION | Renewal | 1 |
| B. EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS | Renewal | 2 |
| C. INSIGNIFICANT ACTIVITIES | Renewal | 35 |
| D. SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS | Renewal | 36 |
| E. SOURCE CONTROL EQUIPMENT REQUIREMENTS | Renewal | 37 |
| F. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS | Renewal | 38 |
| G. GENERAL PROVISIONS | Renewal | 41 |
| H. ALTERNATE OPERATING SCENARIOS | Renewal | 47 |
| I. COMPLIANCE SCHEDULE | Renewal | 48 |
| J. ACID RAIN | Renewal | 49 |
| K. CLEAN AIR INTERSTATE RULE (CAIR) | Renewal | 52 |
| L. CROSS-STATE AIR POLLUTION CONTROL RULE | Renewal | 53 |

| | Permit type | Activity# | Complete Date | Issuance Date | Summary of Action |
|----------|----------------|-------------|------------------|------------------|----------------------|
| V-16-013 | Renewal | APE20110001 | 3/29/2012 | 6/20/2016 | Title V Renewal |

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.

Emissions Unit 01 (W1): Indirect Heat Exchanger – Coal Fired Boiler

Description:

Pulverized coal fired, dry bottom, wall fired boiler with electrostatic precipitator, low NOx burners, hydrated lime injection, wet flue gas desulfurization (WFGD) and selective catalytic reduction (SCR).

Primary Fuel: Bituminous Coal

Secondary Fuels: No.2 fuel oil for startup and stabilization; petroleum coke.

Maximum continuous rating: 4,585 MMBtu/hour

Construction commenced: December 1978

<u>APPLICABLE REGULATIONS</u>:

- 401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Da, Standards of performance for electric steam generating units
- 40 CFR 52.21, Prevention of significant deterioration of air quality
- 401 KAR 52:060 Acid rain permits, incorporating by reference the Federal Acid Rain Provisions 40 CFR parts 72 to 78;
- 401 KAR 51:160 NO_x requirements for large utility and industrial boilers, incorporating by reference 40 CFR 96;
- 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 SO₂ trading program
- 40 CFR 63:002, 40 CFR part 63 national emission standards for hazardous air pollutants, incorporating by reference 40 CFR 63, Subpart UUUUU, National Emission Standards for Hazardous Air Pollutants for Coal and Oil Fired Electric Utility Steam Generating Units.
- 401 KAR 59:015, New indirect heat exchangers

1. <u>Operating Limitations</u>:

- a) The permittee shall comply with all applicable provisions of 40 CFR 63, Subpart UUUUU, no later than April 16, 2015 [40 CFR 63.9984(b)], and shall demonstrate compliance with emission limitations, operating limitations and work practice standards, no later than one-hundred-eighty (180) days after April 16, 2015 (October 13, 2015) [40 CFR 63.9984(f)], except for the tune-up requirement [40 CFR 63.10005(f)]. However, the Division has granted a one (1) year compliance extension. Therefore, the permittee shall demonstrate compliance no later than one-hundred-eighty days after April 16, 2016 (October 13, 2016) [40 CFR 63.6(i)(4)(i)(A)].
- b) The permittee shall use clean fuels as defined in 40 CFR 63.10042, to the maximum extent possible, for ignition throughout the startup period. The permittee shall have sufficient clean fuel capacity to engage and operate the PM control device within one (1) hour of adding coal, residual oil, or solid oil-derived fuel to the unit and shall meet the startup period work practice requirements as identified in 40 CFR 63.10020(e). The permittee shall meet applicable emission limits within four (4) hours of start of

electricity generation. The permittee shall start operation of all other applicable control devices as expeditiously as possible, considering safety and manufacturer recommendations, but, in any case, when necessary to comply with other standards made applicable to Emission Unit 01 by a permit limit or a rule other than 40 CFR 63, Subpart UUUUU. The permittee shall operate all continuous emissions monitoring systems (CEMS) during startup. Any fraction of an hour of an hour in which startup occurs constitutes a full hour of startup. Startup means either:

- 1) the first-ever firing of fuel in Emission Unit 01 for the purpose for producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam form the boiler is used to generate electricity for the sale over the grid or for any other purpose (including on-site use). Once the permittee converts to firing coal, residual oil, or solid oil-derived fuel, they shall engage all of the applicable control technologies except for the dry scrubber and SCR. The permittee shall start the dry scrubber and SCR systems, appropriately to comply with relevant standards applicable during normal operation. The permittee shall comply with all applicable emissions limits at all times except for periods that meet the applicable definition of startup and shutdown. The permittee shall keep records during startup periods and provide reports concerning activities and startup periods, as specified in 40 CFR 63.10011(g) and 40 CFR 63.10021(h) and (i); or
- 2) the period in which operation of Emission Unit 01 is initiated for any purpose. Startup begins with either the firing of any fuel in Emission Units 01 for the purpose of producing electricity or useful thermal energy (such as heat or steam) for industrial, commercial, heating, or cooling purposes (other than the first-ever firing of fuel in Emission Unit 01 following construction of Emission Unit 01) or for any other purpose after a shutdown event. Startup ends four (4) hours after Emission Unit 01 generate electricity that is sold or used for any other purpose (including on site use), or four (4) hours after Emission Unit 01 makes useful thermal energy (such as heat or steam) for industrial, commercial, heating, or cooling purposes (16 U.S.C. 796(18)(A) and 18 CFR 292.202(c)), whichever is earlier. The permittee shall also collect appropriate data and calculate the pollutant emission rate for each hour of startup. If unable to safely engage and operate the particulate matter controls within one (1) hour of first firing of coal, residual oil, or solid oil-derived fuel the permittee may rely on the first definition of startup, as defined in 40 CFR 63.10042, and shall submit a request to use an alternative non-opacity emission standard, as described in 40 CFR 63.10011(g)(4).

The permittee may use the diluent cap and default electrical load values, as described in 40 CFR 63.10007(f), during startup periods or shutdown periods.

[40 CFR 63.10011(g) & 40 CFR 63, Subpart UUUUU, Table 3 & 40 CFR 63.10042, *Startup*].

c) The permittee shall operate all CEMS during shutdown. Shutdown means the cessation of operation of Emission Unit 1 for any purpose. Shutdown begins either when none of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on-site use or at the point of no fuel being

fired in the boiler. Shutdown ends when there is both no electricity being generated and no fuel being fired in Emission Unit 1. The permittee shall vent emissions to the main stack and operate all applicable control devices and continue to operate those control devices after the cessation of coal being fed into the EGU and for as long as possible thereafter considering operational and safety concerns. The permittee shall operate control when necessary to comply with other standards made applicable to the EGU, by a permit limit, or a rule other than 40 CFR 63, Subpart UUUUU and that require operation of the control devices [40 CFR 63.10000(a) & 40 CFR 63.10005(j)].

- d) A tune-up may occur prior to April 1, 2013, so existing sources without neural networks have up to 42 calendar months (3 years from promulgation plus 180 days) or, in the case of units employing neural network combustion control, up to 54 calendar months (48 months from promulgation plus 180 days) after the date that is specified in 40 CFR 63.9984 and according to the applicable provisions in 40 CFR 63.7(a)(2) as cited in Table 9 of 40 CFR 63, Subpart UUUUU to demonstrate compliance with this requirement. If a tune-up occurs prior to such date, the source must maintain adequate records to show that the tune-up met the requirements of this standard [40 CFR 63.10005(f)].
- e) The permittee shall conduct periodic performance tune-ups as specified in 40 CFR 63.10021(e)(1) through (9) and herein, perform the first tune-up as part of the initial compliance demonstration. The permittee may delay the first burner inspection until the next scheduled unit outage, provided it meets the requirements of 40 CFR 63.10005. Subsequently, the permittee shall perform an inspection of the burner at least once every 36 calendar months, unless the EGU employs neural network combustion optimization during normal operations, in which case, the permittee shall perform an inspection of the burner and combustion controls at least once every 48 calendar months.
 - The permittee shall inspect the burner and combustion controls, and clean or replace any components of the burner or combustion controls as necessary upon initiation of the work practice program and at least once every required inspection period. Repair of a burner or combustion control component requiring special order parts may be scheduled as follows:
 - i) Burner or combustion control components parts needing replacement that affect the ability to optimize NO_x and CO shall be installed within 3 calendar months after the burner inspection;
 - ii) Burner or combustion control components parts that do not affect the ability to optimize NO_x and CO may be installed on a schedule determined by the operator;
 - 2) As applicable, inspect the flame pattern and make any adjustments to the burner or combustion controls necessary to optimize the flame pattern. The adjustment shall be consistent with the manufacturer's specifications, if available, or in accordance with best combustion engineering practice for that burner type;

- 3) As applicable, observe the damper operations as a function of mill and/or cyclone loadings, cyclone and pulverizer coal feeder loading, or other pulverizer and coal mill performance parameters, making adjustments and effecting repair to dampers, controls, mills, pulverizers, cyclones, and sensors;
- 4) Evaluate windbox pressures and air proportions, making adjustments and effecting repair to dampers, actuators, controls, and sensors;
- 5) Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly. Such inspection may include calibrating excess O_2 probes and /or sensors, adjusting overfire air systems, changing software parameters, and calibrating associated actuators and dampers to ensure that the systems are operated as designed. Any component out of calibration, in or near failure, or in a state that is likely to negate combustion optimization efforts prior to the next tune-up, should be corrected or repaired as necessary;
- 6) Optimize combustion to minimize generation of CO and NO_x. This optimization should be consistent with the manufacturer's specifications, if available, or best combustion engineering practice for the applicable burner type. NO_x optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, adjusting combustion zone temperature profiles, and add-on controls such as SCR and SNCR; CO optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion and adjusting combustion efficiency software, control systems calibrations, concentric firing system improvements, neural network or combustion efficiency software, controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, and adjusting combustion zone temperature profiles;
- 7) While operating at full load or the predominantly operated load, measure the concentration in the effluent stream of CO and NO_x in ppm, by volume, and oxygen in volume percent, before and after the tune-up adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). The permittee may use portable CO, NO_x and O₂ monitors for this measurement. EGU's employing neural network optimization systems need only provide a single pre- and post-tune-up value rather than continual values before and after each optimization adjustment made by the system;
- 8) Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs 40 CFR 63.10021(e)(1) through (e)(9) of this section including:
 - i) The concentrations of CO and NO_x in the effluent stream in ppm by volume, and oxygen in volume percent, measured before and after an adjustment of the EGU combustion systems;
 - ii) A description of any corrective actions taken as a part of the combustion adjustment; and
 - iii) The type and amount of fuel used over the 12 calendar months prior to an adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period; and
- 9) Report the dates of the initial and subsequent tune-ups as follows:
 - i) If the first required tune-up is performed as part of the initial compliance demonstration, report the date of the tune-up in hard copy (as specified in 40 CFR 63.10030) and electronically (as specified in 40 CFR 63.10031). Report

the date of each subsequent tune-up electronically (as specified in 40 CFR 63.10031).

ii) If the first tune-up is not conducted as part of the initial compliance demonstration, but is postponed until the next unit outage, report the date of the tune-up and all subsequent tune-ups electronically, in accordance with 40 CFR 63.10031.

[40 CFR 63.10000(e) & 40 CFR 63.10006(i)]

- f) If the permittee demonstrates initial compliance with a particular emission limit using a continuous monitoring system, the CMS shall pass a performance evaluation prior to the initial compliance demonstration. If a CMS has been previously certified under another state or federal program and is continuing to meet the on-going quality-assurance (QA) requirements of that program, then, provided that the certification and QA provisions of that program meet the applicable requirements of 40 CFR 63.10010(b) through (h), an additional performance evaluation of the CMS is not required under 40 CFR 63, Subpart UUUUU [40 CFR 63.10005(d)].
- g) The permittee shall operate the monitoring system and collect data at all required intervals at all times that the affected EGU is operating, except for periods of monitoring system malfunctions or out-of-control periods (see 40 CFR 63.8(c)(7)), and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments. The permittee is required to affect monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable [40 CFR 63.10020(b)].
- h) The permittee shall not use data recorded during EGU startup or shutdown or monitoring system malfunctions or monitoring system out-of-control periods, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system [40 CFR 63.10020(c)].
- i) Except for periods of monitoring system malfunctions or monitoring system out-ofcontrol periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments), failure to collect required data is a deviation from the monitoring requirements [40 CFR 63.10020(d)].
- j) At all times, the permittee shall operate and maintain associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the EPA Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of

operation and maintenance records, and inspection of the source [40 CFR 63.10000(b)].

2. <u>Emission Limitations</u>:

- a) Particulate emissions (PM) shall not exceed:
 - 1) 0.03 pounds per million British thermal units (lb/MMBtu), based on a six (6)-hour average [40 CFR 60.42Da(a) and 40 CFR 52.21], and shall apply at all times except during periods of startup, shutdown, or malfunction [40 CFR 60.48Da(a)].
 - 2) 0.030 lb/MMBtu, based on a thirty (30) boiler operating day rolling average [40 CFR 63.9991(a)(1), Table 2], and shall apply at all times except during periods of startup or shutdown [40 CFR 63.10000(a)]. However, the permittee is required to meet the work practice requirements in Table 3 of 40 CFR 63, Subpart UUUUU during periods of startup or shutdown [40 CFR 63.10000(a) & 40 CFR 63.10005(j)].

Compliance Demonstration: See <u>1. Operating Limitations</u>, <u>3. Testing</u> <u>Requirements</u>, <u>4. Specific Monitoring Requirements</u>, <u>5. Specific</u> <u>Recordkeeping Requirements</u> and <u>6. Specific Reporting Requirements</u>.

- b) Sulfur dioxide (SO₂) emissions:
 - shall be reduced by ninety (90) percent and shall not exceed 1.2 lb/MMBtu; or shall be reduced by seventy (70) percent and shall not exceed 0.60 lb/MMBtu [40 CFR 60.43Da(a)(1) and (2) and 40 CFR 52.21], based on a 30-day rolling average [40 CFR 60.43Da(g)], and shall apply at all times except during periods of startup, shutdown, or malfunction [40 CFR 60.48Da(a)].
 - shall not exceed 0.627 lb/MMBtu, based on a 30-day rolling average, upon final action by the U.S. EPA designating Ohio County "unclassifiable/attainment" or "attainment" with the 2010 1-hour SO₂ NAAQS [401 KAR 51:010 and 401 KAR 53:010].

Compliance Demonstration: In determining emission rates for SO₂, the permittee shall adhere to **4.a. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements** and **6. Specific Reporting Requirements**.

3) To preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality, emissions of sulfur dioxide shall not exceed 12,023 tons during any consecutive twelve (12) month period in which any amount of petroleum coke is burned

Compliance Demonstration: See <u>4.e. Specific Monitoring Requirements</u>.

- c) Nitrogen oxides (NO_x) emission shall not exceed:
 - 0.60 lb/MMBtu, based on a 30-day rolling average [40 CFR 60.44Da(a) and 40 CFR 52.21], and shall apply at all times except during periods of startup, shutdown, and malfunction [40 CFR 60.48Da(a)].
 Compliance Demonstration: See <u>4.a. Specific Monitoring Requirements</u>, <u>5.</u> Specific Recordkeeping Requirements and <u>6. Specific Reporting Requirements</u>.
 - 2) See Section J, Acid Rain Permit [40 CFR Part 76].

- d) For hydrogen chloride (HCl), the permittee shall not exceed 2.0×10⁻³ lb/MMBtu [40 CFR 63.9991(a)(1) Table 2], and shall apply at all times except during periods of startup or shutdown [40 CFR 63.10000(a)]. However, the permittee is required to meet the work practice requirements in Table 3 of 40 CFR 63, Subpart UUUUU during periods of startup or shutdown [40 CFR 63.10000(a) & 40 CFR 63.10005(j)]. *Compliance Demonstration:* See <u>1. Operating Conditions</u>, <u>3.b. Testing Requirements</u>, <u>4. Specific Monitoring Requirements</u>, <u>5. Specific Recordkeeping Requirements</u> and <u>6. Specific Reporting Requirements</u>.
- e) For mercury (Hg), the permittee shall not exceed 1.2 pounds per trillion British thermal units (lb/TBtu), based on a 30-boiler operating day rolling average [40 CFR 63.9991(a)(1), Table 2] and shall apply at all times except during periods of startup or shutdown[40 CFR 63.10000(a)]. However, the permittee is required to meet the work practice requirements in Table 3 of 40 CFR 63, Subpart UUUUU during periods of startup or shutdown [40 CFR 63.10000(a) & 40 CFR 63.10005(j)].

Compliance Demonstration: See <u>1. Operating Limitations</u>, <u>3. Testing</u> <u>Requirements</u>, <u>4. Specific Monitoring Requirements</u>, <u>5. Specific Recordkeeping</u> <u>Requirements</u> and <u>6. Specific Reporting Requirements</u>.

3. <u>Testing Requirements</u>:

- a) No later than the applicable date specified in **1.b. Operating Limitations**, initial performance testing shall be completed, for all pollutants limited under 40 CFR 63, Subpart UUUUU [40 CFR 63.10000(c), 40 CFR 63.10011(a)], which may include the use of CEMS in some cases [40 CFR 63.10011(c)], to demonstrate compliance with the emission limits specified in 40 CFR 63.9991, according to 40 CFR 63.10007 and Table 5 of 40 CFR 63, Subpart UUUUU [40 CFR 63.10005(b)]. For the purposes of the initial compliance demonstration, if the permittee uses CEMS to measure Hg or PM, the first 30-boiler operating day rolling average emission rate obtained with certified CEMS after the applicable date in 40 CFR 63.9984 (or, if applicable, prior to that date, as described in 40 CFR 63.10005(b)(2)), expressed in units of the standard, is the initial performance test [40 CFR 63.10011(c)]. The permittee may use test data and results from a performance test conducted prior to the date on which compliance is required as specified in 40 CFR 63.9984, provided the following conditions are fully met:
 - 1) For a performance test based on stack test data, the test was conducted no more than 12-calendar months prior to the date on which compliance is required as specified in 40 CFR 63.9984;
 - 2) For a performance test based on data from a certified CEMS, the test consists of all valid CEMS data recorded in the 30-boiler operating days immediately preceding that date;
 - 3) The performance test was conducted in accordance with all applicable requirements in 40 CFR 63.10007 and Table 5;
 - 4) A record of all parameters needed to convert pollutant concentrations to units of the emission standard (e.g. stack flow rate, diluent gas concentrations, hourly electrical loads) is available for the entire performance test period; and

- 5) For each performance test based on stack test data, the permittee shall certify, and keep documentation demonstrating, that the EGU configuration, control devices, and fuel(s) have remained consistent with conditions since the prior performance test was conducted.
- b) The permittee shall perform quarterly stack testing to demonstrate compliance with the applicable HCl emission limit in <u>2.d. Emission Limitations</u> [Table 2 of 40 CFR 63, subpart UUUUU]. The permittee:
 - may skip performance testing in those quarters during which less than 168-boiler operating hours occur, except that a performance test shall be conducted at least once every calendar year [40 CFR 63.10021(d)(1) & 40 CFR 63.10006(d)], and shall be completed within eleven (11) to thirteen (13) months after the previous performance test [40 CFR 63.10006(f)]; and
 - 2) shall conduct the performance test as defined in 3.a. 3.f. of Table 5 of 40 CFR 63, subpart UUUUU and 40 CFR 63.10007 at least quarterly, with results in (lb/MMBtu) [40 CFR 63.10021(d) and 40 CFR 63.10006(d)], and shall be completed within eighty (80) to one-hundred (100) calendar days after the previous performance test [40 CFR 63.10006(f)].
 140 CFR 63.10011(a)]

[40 CFR 63.10011(a)]

4. <u>Specific Monitoring Requirements</u>:

- a) Continuous emissions monitoring systems (CEMS) shall be installed, calibrated, maintained, and operated for measuring SO₂ emissions, NO_x emissions and either oxygen (O₂) or carbon dioxide (CO₂) emissions. Oxygen or carbon dioxide shall be monitored at each location where sulfur dioxide or nitrogen oxides emissions are monitored. The permittee shall ensure the CEMS are in compliance with the requirements of 40 CFR 60.50Da [401 KAR 59:005, Section 3 and Performance Specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A, 401 KAR 52:020, Section 10 and 40 CFR 60.49Da].
- b) To meet the monitoring requirement for sulfur dioxide, the permittee shall use a SO₂ CEMS. If any 30-day rolling average SO₂ value exceeds the standard, as calculated according to <u>2.b. Emission Limitations</u>, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or CEM system and make any repairs or take corrective action as soon as practicable [401 KAR 52:020, Section 10 and 40 CFR 60.43Da(g)].
- c) The permittee shall use the SO_2 CEMS to determine the monthly and twelve consecutive month emissions from this electrical generating unit [40 CFR 52.21].
- d) The following procedures shall be used to conduct monitoring system performance evaluations and calibration checks as required under 401 KAR 59:005, Section 4(3).
 - 1) Reference Method 6 or 7, as applicable shall be used for conducting performance evaluations of SO_2 and NO_x CEMS.

- 2) SO₂ or NO_x, as applicable, shall be used for preparing calibration mixtures under Performance Specification 2 of Appendix B to 40 CFR 60 filed by reference in 401 KAR 50:015.
- 3) The span value for the continuous monitoring system for measuring nitrogen oxides shall be 1,000 ppm, or span values as specified in 40 CFR 60.49Da(i)(3) and 40 CFR 75, Appendix A.
- 4) The span value for the CEMS for measuring SO₂ at the inlet to the SO₂ control device shall be 125 percent of the maximum estimated hourly potential emissions of fuel fired, and the outlet of the control device shall be 50 percent of the maximum estimated hourly potential emissions of the fuel fired, or span values as specified in 40 CFR 75, Appendix A.
- e) The permittee shall monitor SO_2 emission using continuous monitoring system at both the inlet and outlet of the SO_2 control device. An "as fired" fuel monitoring system meeting the requirements of Reference Method 19 may be used to determine potential SO_2 emissions in place of a continuous emission monitor at the inlet of the SO_2 control device [401 KAR 52:020, Section 10 and 40 CFR 60.49Da(b)].
- f) When emission data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, the permittee shall obtain emission data by using other monitoring systems as approved by the Division or other data substitution methods, including 40 CFR 75, to provide emission data for a minimum of eighteen (18)-hours in at least twenty-two (22) out of 30 successive boiler operating days [40 CFR 60.49Da(f)(1)].
- g) To meet the monitoring requirement for NO_x , the permittee shall use a continuous emission monitor. Excluding the startup and shut down periods, if any 30 day rolling average NO_x value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any repairs or take any corrective actions as soon as practicable [40 CFR Part 76 and 40 CFR 60.49Da(c)(1) and (2)].
- h) All the continuous emission monitoring systems shall be operated and data shall be recorded during all periods of operation of the emissions units including periods of startup, shutdown, malfunction or emergency conditions, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments [40 CFR 60.49Da(e)].
- For each startup and shutdown event, the permittee shall maintain records of the date, time, and duration for each startup and shutdown event. The permittee shall also maintain records of the type of startup event that occurs (cold, warm, hot, etc.) [401 KAR 52:020, Section 10].
- j) The permittee shall install, certify, operate, and maintain a moisture monitoring system in accordance with 40 CFR 75, if the permittee is required to make corrections

for stack gas moisture content when converting pollutant concentrations. Alternatively, the permittee may use appropriate fuel-specific default moisture values from 40 CFR 75.11(b) to estimate the moisture content of the stack gas or petition the Administrator under 40 CFR 75.66 for use of a default moisture value for non-coal-fired units. If the permittee installs and operates a moisture monitoring system, the permittee shall not use substituted moisture data in emissions calculations [40 CFR 63.10010(d)].

k) The permittee shall operate the monitoring system and collect data at all required intervals at all times that the affected EGU is operating, except for periods of monitoring system malfunctions or out-of-control periods and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments. The permittee is required to affect monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. The permittee may not use data recorded during EGU startup or shutdown or monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. Failure to collect required data is a deviation from the monitoring requirements [40 CFR 63.10020].

5. <u>Specific Recordkeeping Requirements</u>:

- 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 59:005, Section 3(4)].
- b) The permittee shall maintain the records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the emission unit; any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative [401 KAR 59:005, Section 3(2)].
- c) The permittee shall maintain records of [401 KAR 52:020, Section 10]:
 - 1) Each fuel analysis;
 - 2) The rate of fuel burned for each fuel type, on a daily basis;
 - 3) The heating value and ash content on a weekly basis;
 - 4) The average electrical output and the minimum and maximum hourly generation rate on a daily basis;

- 5) When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted;
- 6) Data collected either by the continuous monitoring systems or as necessary to convert monitoring data to the units of applicable standard; and
- 7) Results of compliance tests.
- d) The permittee shall calculate and record the total SO₂ emissions from Emissions Unit 01 on a monthly and 12-consecutive month basis [401 KAR 52:020, Section 10].
- e) The permittee shall maintain records of the dates on which any petroleum coke is burned and the monthly and annual quantities burned [401 KAR 52:020, Section 10].
- f) For each startup and shutdown event, the permittee shall maintain records of the date, time, and duration for each startup and shutdown event, the determination of the maximum clean fuel capacity, the maximum hourly clean fuel heat input, the hourly clean fuel heat input and the information required in 40 CFR 63.10020(e) [40 CFR 63.10032(f)]. The permittee shall also maintain records of the type of startup event that occurs (cold, warm, hot, etc.) [401 KAR 52:020, Section 10].
- g) In regards to Hg CEMS, the permittee shall maintain records required under Appendix A of 40 CFR 63, Subpart UUUUU, including a copy of each notification and report that the permittee submitted for compliance, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted according to the requirements in 40 CFR 63.10(b)(2)(xiv) [40 CFR 63.10032(a)].
- h) For each CEMS, the permittee shall maintain the following records:
 - 1) Record described in 40 CFR 63.10(b)(2)(vi) through (xi);
 - Previous versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3);
 - Request for alternatives to relative accuracy test for CEMS as required in 40 CFR 63.8(f)(6)(i);
 - Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

[40 CFR 63.10032(b)]

- i) The permittee shall make available to the EPA Administrator such records as may be necessary to determine whether the performance test has been done according to the requirements in 40 CFR 63.10007 [40 CFR 63.10007(f)].
- j) The permittee shall record results of PM CEMS system performance audits, dates and duration of periods when the PM CEMS is out of control to completion of the corrective actions necessary to return the PM CEMS to operation consistent with the site-specific monitoring plan [40 CFR 63.10011(i)(5)(ii)].

- k) The permittee shall maintain records as specified in 40 CFR 63.10032 during periods of startup and shutdown [40 CFR 63.10021(h)].
- 1) In regards to the applicable emission limitations of 40 CFR 63, Subpart UUUUU, the permittee shall maintain the following records:
 - 1) Monthly fuel use, including the type of fuel and amount used [40 CFR 63.10032(d)(1)].
 - 2) If the permittee combust non-hazardous secondary material that have been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1), the permittee shall keep a record which documents how the secondary material meets each of the legitimacy criteria. If the permittee combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR 241.3(b)(2), the permittee shall keep records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR 241.2 If the fuel received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), the permittee shall keep a record which documents how the fuel satisfies the requirements of the petition process [40 CFR 63.10032(d)(2)].
 - 3) The permittee shall keep records of the occurrence and duration of each startup and/or shutdown [40 CFR 63.10032(f)].
- m) The permittee shall keep records of the occurrence and duration of each malfunction of an operation (i.e., process equipment) or the air pollution control and monitoring equipment [40 CFR 63.10032(g)].
- n) The permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation [40 CFR 63.10032(h)].
- o) The permittee shall maintain records of monthly fuel use, including they type of fuel and amount used [40 CFR 63.10032(d)]. During each startup and shutdown, the permittee shall maintain records of the type and amount of fuel used [40 CFR 63.10032(i)].

6. <u>Specific Reporting Requirements</u>:

- a) Minimum data requirements shall be maintained and furnished in the format specified by the Division. The permittee shall submit for every calendar quarter a written report of excess emissions (as defined in applicable sections) to the Division. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter and shall include the following information: [40 CFR 60.51Da]
 - 1) The magnitude of the excess emission computed in accordance with 40 CFR 60.7, any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.

- 2) All hourly averages shall be reported for SO_2 and NO_x monitors. The hourly averages shall be made available in the format specified by the Division.
- 3) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the emission unit. The nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.
- 4) The date and time identifying each period during which continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments shall be reported.
- 5) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
- 6) For SO_2 and NO_x , all information listed in 40 CFR 60.51Da (b)(1) thru (9), shall be reported to the Division for each twenty-four (24) hour period.
- 7) 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 information specified in 40 CFR 60.51Da(c), obtained under the requirements of 40 CFR 60.48Da, shall be reported for that 30-day period.
- 8) If any SO_2 standards as specified in 40 CFR 60.43 Da are exceeded during emergency conditions because of control system malfunction, the permittee shall submit a signed statement including all information as described in 40 CFR 60.51Da(b).
- 9) If fuel pretreatment credit toward the SO₂ emission standard under 40 CFR 60.51Da is claimed, the permittee shall submit a signed statement including all information as described in 40 CFR 60.51Da(e)
- 10) For any periods for which SO_2 or NO_x emissions data are not available, the permittee shall submit a signed statement pursuant to 40 CFR 60.51Da(f) indicating if any changes were made in the operation of the emission control system during the period of data unavailability. Operations of control system and emissions units during periods of data unavailability are to be compared with operation of the control system and emissions units before and following the period of data unavailability.
- 11) The permittee shall submit a signed statement including all information as described in 40 CFR 60.51Da(h).
- 12) Pursuant to 40 CFR 60.51Da(i), for the purposes of the reports required under 401 KAR 59:005, Section 3, as specified in 40 CFR 60.42Da(b). If the permittee elects to install, calibrate, maintain, and operate a CEMS for measuring PM emissions according to the requirements of 40 CFR 60, Subpart Da, the permittee is exempt from the opacity standard specified in this paragraph. The CEM systems for SO₂ and NO_x shall be certified, operated and maintained in accordance with the applicable provisions of 40 CFR 75, compliance with which shall be deemed compliance with monitoring provisions of 40 CFR 60.49Da. The CEMS for SO₂ and NO_x shall be certified, operated and maintained in accordance with the applicable provisions of 40 CFR 75, compliance with which shall be deemed compliance with monitoring provisions of 40 CFR 60.49Da.

- b) The permittee shall submit a report of sulfur dioxide emissions for the previous twelve consecutive month period every six months in accordance with Section F.5. Exceedances of the emission limitation specified above shall be reported within thirty days following the date when the exceedance is determined.
- c) For exceedances that occur as a result of start-up, the permittee shall report:
 - 1) The type of start-up (cold, warm, or hot);
 - 2) Whether or not the duration of the start-up exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of why the start-up exceeded recommended or typical durations.
 [401 KAR 52:020, Section 10]
- d) No later than April 16, 2016, the permittee shall begin the schedule of submitting semi-annual compliance reports according to the requirements in 40 CFR 63.10031(b). The report shall contain the information required in 40 CFR 63.10031(c)(1) through (4), as specified below:
 - 1) The information required by the summary report located in 63.10(e)(3)(vi).
 - 2) The total fuel use, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or the basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.
 - 3) Indicate whether the permittee burned new types of fuel during the reporting period. If the permittee did burn new types of fuel the permittee shall include the date of the performance test where that fuel was in use.
 - 4) Include the date of the most recent tune-up in regards to the performance tune-up requirement according to 40 CFR 63.10021(e). Include the date of the most recent burner inspection if it was not done every 36 (or 48) months and was delayed until the next scheduled unit shutdown.
- e) During the reporting period, if there are no deviations from any applicable emission limitation or work practice standards, no periods during which the CMS were out-of-control, as specified in 40 CFR 63.8(c)(7), a statement shall be made that there were no deviations for emission limitation, work practice standards, or no periods during which CMS were out of control. If there were periods of deviations of applicable emission limitations, work practice standards, or CMS were out-of-control, the report shall contain the information in 40 CFR 63.10031(e) [Table 8 of 40 CFR 63, Subpart UUUUUU].
- f) The permittee shall submit Notification of Compliance Status reports according to 40 CFR 63.10030(e) [40 CFR 63.10011(e)].
- g) The permittee shall report the date of the first tune-up in hard copy to the Division's Owensboro Regional Office, and electronically to the U.S. EPA as required in 40 CFR 63.10031. Subsequent tune-ups shall only be reported electronically [40 CFR 63.10021(e)(9)(i)].

- h) The permittee shall develop and submit this site-specific monitoring plan, if requested, at least 60 days before the initial performance evaluation of the CEMS. The monitoring plan shall address provisions (d)(2) through (d)(5) of 40 CFR 63.10000 [40 CFR 63.10000(d)(1)]. The permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified. The permittee shall report the results of performance tests and performance tune-ups within 60 days after the completion of the performance tests shall include all applicable information required in 40 CFR 63.10031 [40 CFR 63.10006(j)].
- i) The permittee shall provide reports concerning activities and periods of startup as specified in 40 CFR 63.10011(g) and 40 CFR 63.10021(h) and (i) [40 CFR 63, Subpart UUUUU, Table 3].
- j) Records shall be in a form suitable and readily available for expeditious review, as specified in 40 CFR 63.10(b)(1), and shall keep each record (i.e. occurrence, measurement, maintenance, corrective action) for five (5) years following the date of each occurrence with at least the most recent two (2) years of records (after the date of each occurrence) on-site [40 CFR 63.10033].
- k) The permittee shall make available upon request records for the results of PM CEMS system performance audits, dates and duration of periods when the PM CEMS is out of control to completion of the corrective actions necessary to return the PM CEMS to operation, consistent with the site-specific monitoring plan [40 CFR 63.10011(i)(5)(ii)].
- The permittee shall report each instance in which the permittee did not meet an applicable emissions limit or operating limit in Table 2 through 3 of 40 CFR 63, Subpart UUUUU or failed to conduct a required tune-up. These instances are deviations from the requirements of 40 CFR 63, Subpart UUUUU and shall be reported according to 40 CFR 63.10031 [40 CFR 63.10021(g)].
- m) The permittee shall provide reports as specified in 40 CFR 63.10031 concerning activities and periods of startup and shutdown [40 CFR 63.10021(i)].
- n) The permittee shall submit all of the notifications in 40 CFR 63.7(b) and (c), 40 CFR 63.8(e),(f)(4) and (6) and 40 CFR 63.9(b) through (h) that apply to the permittee [40 CFR 63.10030(a)] The permittee shall submit an Initial Notification, as specified in 50 CFR 63.9(b)(2), no later than April 14, 2012 [40 CFR 63.10030(b)].
- o) The permittee shall submit Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin [40 CFR 63.10030(d)].

- p) The permittee shall submit a Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii). The Notification of Compliance Status report shall contain all the information specified:
 - 1) A description of the affected source including identification of which subcategory the source is in, the design capacity of each source;
 - 2) Summary of the results of all performance tests and fuel analyses and calculations conducted to demonstrate initial compliance including all established operating limits;
 - 3) Identification of whether the permittee plan to demonstrate compliance with each applicable emission limit through performance testing; or CEMS.
 - 4) A signed certification that the permittee has met all applicable emission limits and work practice standards;
 - 5) For any deviation (emission limit, work practice standard, operating limit), the permittee shall submit a brief description of the deviation, the duration, emission points, and the cause of deviation in the Notification of Compliance Status report;
 - 6) As required in 40 CFR 63.9(h)(2), the Notification of Compliance Status report shall include a summary of the results of annual performance tests and documentation of any operating limits that were reestablished during the test.
 - 7) Certifications of compliance shall be signed by a responsible official stating
 - i) "This EGU complies with the requirements in 40 CFR 63.10021(a) to demonstrate continuous compliance"; and

ii) "No secondary materials that are solid waste were combusted in EU 01" [40 CFR 63.10030(e)].

- q) Unless the Administrator has approved a different schedule for submission of reports under 63.10(a), the permittee shall submit each report according to Table 8, by the given date, and according to the following:
 - The first compliance report shall cover the period beginning on the compliance date that is specified for in 40 CFR 63.9984 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for the permittee in 40 CFR 63.9984;
 - 2) The first compliance report shall be postmarked or submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified in 40 CFR 63.9984;
 - 3) Each subsequent compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31;
 - 4) Each subsequent compliance report shall be postmarked or submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period; and
 - 5) For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the permittee may submit the first and subsequent

compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section. [40 CFR 63.10031(b)]

- r) In regards to Hg CEMS the permittee shall also submit the electronic reports required under appendix A at the specified frequency [40 CFR 63.10031(a)].
- s) If the permittee has a malfunction during the reporting period, the compliance report shall include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitations to be exceeded [40 CFR 63.10031(g)].
- t) In regards to exceeding the MATS mercury and particulate matter emission limits, the permittee shall include the information required in 40 CFR 63.10(e)(3)(v) in the compliance report [40 CFR 63.10031(d)].
- u) The permittee shall submit electronic reports required under appendix A and appendix B of 40 CFR 63, Subpart UUUUUU, at the specified frequency [40 CFR 63.10031(a)].
- v) Within 60 days after the date of completing each performance test the permittee shall submit the results of the performance tests required by 40 CFR 63, Subpart UUUUU to EPA's WebFIRE database using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). Performance test data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see http://www.epa.gov/ttn/chief/ert/index.html). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. If the permittee claim that some of the information being submitted for performance tests is confidential business information (CBI), the permittee shall submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media to EPA. The electronic media shall be clearly marked as CBI and mailed to U.S. EPA/OAPQS/ CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted shall be submitted to EPA via CDX. At the discretion of the delegated authority, the permittee shall also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority.
 - Within 60 days after the date of completing each CEMS performance evaluation test, as defined in 40 CFR 63.2, the permittee shall submit the relative accuracy test audit (RATA) data (or, for PM CEMS, RCA and RRA data) required by 40 CFR 63, Subpart UUUUU to EPA's WebFIRE database by using CEDRI that is accessed through CDX. The RATA data shall be submitted in the file format generated through use of ERT. Only RATA data compounds listed on the ERT Web site are subject. If the permittee claim that some of the information being

submitted for RATAs is CBI, the permittee shall submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media by registered letter to EPA and the same ERT file with the CBI omitted to EPA via CDX. The compact disk or other commonly used electronic storage media shall be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. At the discretion of the delegated authority, owners or operators shall also submit these RATAs to the delegated authority in the format specified by the delegated authority. The permittee shall submit calibration error testing, drift checks, and other information required in the performance evaluation as described in 40 CFR 63.23

- 2) For a PM CEMS, within 60 days after the reporting periods ending on March 31st, June 30th, September 30th, and December 31st, the permittee shall submit quarterly reports to EPA's WebFIRE database by using the CEDRI that is accessed through CDX. The permittee shall use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with EPA's reporting form output format. For each reporting period, the quarterly reports shall include all of the calculated 30-boiler operating day rolling average values derived from the CEMS.
- 3) Reports for an SO_2 CEMS, Hg CEMS, and any supporting monitors for such systems (such as a diluent or moisture monitor) shall be submitted using the ECMPS Client Tool, as provided for in Appendices A and B to 40 CFR 63, Subpart UUUUU and 40 CFR 63.10021(f).
- 4) Submit the compliance reports required under 40 CFR 63.10031(c) and (d) and the notification of compliance status required under 40 CFR 63.10030(e) to EPA's WebFIRE database by using CEDRI, which is accessed through EPA's CDX. The permittee shall use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with EPA's reporting form output format.
- 5) All reports required by 40 CFR 63, Subpart UUUUU not subject to the requirements in paragraphs (v)(1) through (4) shall be sent to the Administrator at the appropriate address listed in 40 CFR 63.13. If acceptable to both the Administrator and the source, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to paragraphs (v)(1), (2), and (3) in paper format.
- [40 CFR 63.10031(f)]

7. <u>Specific Control Equipment Operating Conditions</u>:

- a) The electrostatic precipitator (ESP), wet flue gas desulfurization unit (WFGD), and selective catalytic reduction (SCR) system shall be operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and good operating practices [401 KAR 50:055].
- b) Records regarding the maintenance of the control equipment shall be maintained [40 CFR 63.10032 and 401 KAR 52:020, Section 10].
- c) See Section E Control Equipment Conditions for further requirements.

Emissions Unit 2a: Coal Conveying and Handling

Description:

Control Equipment: Enclosures and Fabric Filters Maximum Operating Rate: 3,600 tons/hour Construction commenced: December 1978

| Construction commenced: Dec | cember 1978 | |
|------------------------------|------------------------------|------------------------------|
| Emission Point | Fabric Filter/Eff%/Installed | Applicable Regulation |
| EP01: Coal Barge & Railcar | DMLV45/15 Type F/99.9%/2011 | 40 CFR 52.21, Prevention |
| Unloader | DMLV30/10 Type F/99.9%/2011 | of Significant Deterioration |
| EP02: Transfer Tower 10 | CPC-4 Power Core/99.9%/2010 | of Air Quality |
| EP03: Transfer Tower 7A | CPC-4 Power Core/99.9%/2010 | 7 |
| EP04: Transfer Tower 7B | CPC-4 Power Core/99.9%/2010 | 401 KAR 59:010, New |
| EP05: Transfer Tower 7C | CPC-6 Power Core/99.9%/2010 | Process Operations |
| EP06: Transfer Tower 7D | CPC-6 Power Core/99.9%/2010 | |
| EP07: Transfer Tower 8 | CPC-6 Power Core/99.9%/2010 | 40 CFR 60, Subpart Y, |
| EP08: Sample Tower | CPC-12 Power Core/99.9%/2010 | Standards of Performance |
| EP09: Coal Crusher | CPC-4 Power Core/99.9%/2010 | for Coal Preparation Plants |
| EP10: Tripper Transfer Tower | | 7 |

1. **Operating Limitations:**

NA

2. <u>Emission Limitations</u>:

a) Particulate emissions from each stack shall not exceed the following: 2.34 pounds per hour (lb/hr), when operating at 0.5 tons per hour (ton/hr) or less; [3.59(P)^{0.62}] lb/hr, when process rate is less than or equal to 30 ton/hr; or [17.31(P)^{0.16}] lb/hr, when process rate is greater than 30 ton/hr; based on a three (3) hour average, where P is the weekly average processing rate in ton/hr [401 KAR 59:010, Section 3(2)].

Compliance Demonstration:

See <u>4.a.Specific Monitoring Requirements</u> and <u>5.a.Specific Recordkeeping</u> <u>Requirements</u>.

b) 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 and 401 KAR 59:010, Section 3(1)(a)].

Compliance Demonstration:

See <u>4.b Specific Monitoring Requirements</u> and <u>5.b. Specific Recording keeping</u> <u>Requirements</u>.

3. <u>Testing Requirements</u>:

- a) Testing shall be conducted at such times as may be required by the Cabinet in accordance with 401 KAR 50:045.
- b) The permittee shall conduct at least one U.S. EPA Reference Method 9 evaluation on each emission point stack, each calendar quarter to demonstrate compliance with the particulate standard [401 KAR 52:020, Section 10].

4. <u>Specific Monitoring Requirements</u>:

- a) The permittee shall monitor the amount of coal received and processed on a weekly basis [401 KAR 52:020, Section 10].
- b) If during weekly qualitative visible observations, visible emissions from an affected facility are seen for two consecutive weeks, then the opacity of emissions shall be determined by U.S. EPA Reference Method 9 at least once during that two-week period while the affected facility is operating at representative capacity or at a frequency requested by the Division [401 KAR 52:020, Section 10].

5. <u>Specific Recordkeeping Requirements</u>:

- a) The permittee shall maintain records on the amount of coal and pet coke received and processed, in tons, on a weekly basis [401 KAR 52:020, Section 10].
- b) The weekly log of qualitative visual observations of opacity of emissions and the opacity determined by U.S. EPA Reference Method 9, if any were taken, and repairs that were made due to any opacity reading which exceeded the standard [401 KAR 52:020, Section 10].

6. <u>Specific Reporting Requirements</u>:

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

7. <u>Specific Control Equipment Operating Conditions</u>:

- a) The enclosures and bag houses shall be operated to maintain compliance with permitted emission limitations, in accordance with the manufacturer's specifications and standard operating practices [401 KAR 50:055].
- b) Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c) See Section E Control Equipment Conditions for further requirements.

Emissions Unit 2b: Limestone Hauling and Conveying.

| Maximum Operating Rate: 1,000 tons/hour | | | |
|--|--------------------------------------|--|--|
| Emission Point | Construction Commenced | Control Model/Eff%/Constructed | Applicable Regulations |
| EP01: Lime Barge Unloader | | DMLV45/15TypeF/99.9%/2011 DMLV30/10TypeF/99.9%/2011 | 401 KAR 59:010 New Process Operations; 40 CFR 52.21 Prevention of Significant Deterioration |
| EP02: Transfer Tower 10 EP03: Transfer Tower 7A EP04: Transfer Tower 7B EP05: Transfer Tower 7C | Construction Commenced 12/1978 | CPC-4 Power Core/99.9%/2010 CPC-4 Power Core/99.9%/2010 CPC-4 Power Core/99.9%/2010 CPC-6 Power Core/99.9%/2010 | 401 KAR 59:010 New Process Operations; 40 CFR 52.21 Prevention of Significant Deterioration |
| EP06: Transfer Tower 7D EP07: Transfer Tower 7E | | CPC-6 Power Core/99.9%/2010 CPC-6 Power Core/99.9%/2010 | 40 CFR Part 64, Compliance Assurance Monitoring |
| EP08: Limestone Silos (4) | | CPC-4 Power Core/99.9%/2011 | 401 KAR 59:010 New Process Operations; 40 CFR 52.21 Prevention of Significant Deterioration |

1. <u>Operating Limitations</u>:

NA

2. <u>Emission Limitations</u>:

- a) Particulate emissions from each stack shall not exceed the following: 2.34 pounds per hour (lb/hr), when operating at 0.5 tons per hour (ton/hr) or less; [3.59(P)^{0.62}] pounds per hour, when process rate is less than 60,000 lbs/hr; or [17.31(P)^{0.16}] pounds per hour, when process rate is greater than 60,000 lbs/hr; based on a three (3) hour average where P is the weekly average processing rate in tons per hour [401 KAR 59:010, Section 2].
- b) The permittee shall not cause, suffer, allow or permit any continuous emission into the open air form a control device or stack associated with any affected facility which is equal or greater than 20 percent opacity [401 KAR 59:010, Section 1(a)].

3. <u>Testing Requirements</u>:

- a) Performance tests shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit [40 CFR 64.4(c)(1)].
- b) Testing shall be conducted at such times as may be required by the Cabinet in accordance with 401 KAR 50:045.
- c) If no additional Method 9 performance tests are performed pursuant to **4.c**) **Specific Monitoring Requirements**, the permittee shall conduct at least one U.S. EPA Reference Method 9 evaluation on each emission point stack, each calendar quarter to demonstrate compliance with the particulate standard [401 KAR 52:020, Section 10].

4. <u>Monitoring Requirements</u>:

- a) The permittee shall monitor the amount of limestone processed on a weekly basis [401 KAR 52:020, Section 10].
- b) The permittee shall monitor the hours of operation on a weekly basis [401 KAR 52:020, Section 10].
- c) To satisfy CAM requirements, opacity shall be used as an indicator of particulate matter emissions. See Table 1 for complying with CAM [40 CFR 64.6]. If visible emissions from a stack are seen, then the opacity shall be determined by U.S. EPA Reference Method 9 and an inspection be initiated of the control equipment for any repairs [40 CFR 64.4(a)(1)].

| CAM Monitoring Approach | | Indicator No. 1 |
|----------------------------|---------------------------------------|--|
| I. | Indicator | Visible Emissions |
| А. | Measurement Approach | Daily visual observations of the dryer air discharge shall be performed. U.S. EPA Reference Method 9 shall be performed if visual emissions are observed. |
| П. | Indicator Range | An excursion is defined as one six minute average opacity reading collected using U.S. EPA Reference Method 9 that is above 15% opacity. An excursion shall initiate an investigation and corrective action. |
| | | An exceedance is defined as either (1) 4 excursions in a rolling 3-month period or (2) 3 consecutive weekly excursions. An exceedance triggers the threshold for a Quality Improvement Plan (QIP). |
| III. | Performance Criteria | |
| А. | Data Representativeness | Visual observation logs will be maintained and audited to ensure visual emission readings are conducted. |
| В. | Verification of Operational Status | N/A |
| C. | QA/QC Practices and Criteria | U.S. EPA Reference Method 9 readings will be performed by individuals certified in reading U.S. EPA Reference Method 9. |
| D. | Monitoring Frequency | Daily visual observations of the stack shall be performed. U.S. EPA Reference Method 9 shall be performed if visual emissions are observed. |
| IV. | Data Collection Procedures | Daily visual observations and U.S. EPA Reference Method 9 readings (if any) shall be kept in a form readily available for inspection. |
| v. | Averaging Period | U.S. EPA Reference Method 9 readings, if required, shall be reported as 6-minute averages. |
| VI. | Recordkeeping | Daily visual observations and U.S. EPA Reference Method 9 readings (if any) shall be maintained for a period of 5 years. |
| VII. | Reporting | The number, the duration, the cause of, and corrective action taken as a result of any excursion or exceedance. |

Table 1

5. <u>Recordkeeping Requirements</u>:

- a) The permittee shall maintain records of amount of limestone received, in tons, on a weekly basis [401 KAR 52:020, Section 10].
- b) The permittee shall maintain hours of operation of limestone conveying, on a weekly basis [401 KAR 52:020, Section 10].

6. <u>Reporting Requirements</u>:

See Section F – Monitoring, Recordkeeping and Reporting.

7. <u>Specific Control Equipment Operating Conditions:</u>

- a) The dust collector equipment shall be maintained and operated in accordance with manufacturer's specifications and standard operating practices to ensure the emission units are in compliance with applicable requirements of 401 KAR 59:010 [401 KAR 50:055, Section 2].
- b) Records regarding maintenance of the control equipment shall be maintained [401 KAR 59:005, Section 3(4)].
- c) See Section E., Source Control Equipment Requirements.

Emission Unit 03: Coal & Limestone Haulage (Fugitive Emissions)

Description:

Coal Stockpiles Paved Haul Roads Unpaved Haul Roads Underground Hopper Lime Truck Unloading Construction commenced: December 1978 Underground Hopper: March 1999 Control equipment: Wet Suppression, Water sprays, Compaction and telescopic chutes

<u>APPLICABLE REGULATIONS</u>:

401 KAR 63:010, Fugitive emissions 40 CFR 52.21, Prevention of Significant Deterioration of Air Quality.

1. <u>Operating Limitations</u>:

NA

2. <u>Emission Limitations</u>:

- 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:
 - 1) Application and maintenance of asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces, which can create airborne dusts;
 - 2) 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.
 1401 KAD (2:010, Section 2)
 - [401 KAR 63:010, Section 3]
- b) Discharge of visible fugitive dust emissions beyond the property line is prohibited [401 KAR 63:010, Section 3].

Compliance Demonstration:

Compliance is assumed when daily observations indicate that the processes and controls are operating normally.

3. <u>Testing Requirements</u>: NA

4. <u>Monitoring Requirements</u>:

The permittee shall monitor the amount of coal received and processed, in tons, on a weekly basis [401 KAR 52:020, Section 10].

5. <u>Recordkeeping Requirements</u>:

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

6. <u>Reporting Requirements</u>:

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

7. <u>Specific Control Equipment Operating Conditions:</u>

- a) The water spray, compaction, and telescopic chutes shall be operated to maintain compliance with applicable requirements, in accordance with manufacturer's specifications and standard operating practices [401 KAR 50:055].
- b) Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c) See Section E Control Equipment Conditions for further requirements.

Emission Unit 04: Ash and Sludge Handling Operations

Description:

EP01: Flyash Truck Loadout EP02: Sludge Conveyor EP03: Sludge Stockpile EP04: Sludge Truck Loadout EP05: Paved Haulroad EP06: Unpaved Haulroad Operating Rate: 310 tons/hr Control Equipment: Enclosures, and water suppression Construction commenced: December 1978

<u>APPLICABLE REGULATIONS</u>:

401 KAR 63:010, Fugitive emissions 40 CFR 52.21, Prevention of Significant Deterioration of Air Quality.

1. <u>Operating Limitations</u>:

NA

2. <u>Emission Limitations</u>:

- 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:
 - 1) Application and maintenance of asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces, which can create airborne dusts;
 - 2) 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; [401 KAR 63:010, Section 3]
- b) Discharge of visible fugitive dust emissions beyond the property line is prohibited [401 KAR 63:010, Section 3].

Compliance Demonstration: Compliance is assumed when weekly observations indicate that the processes and controls are operating normally.

3. <u>Testing Requirements</u>:

NA

4. <u>Monitoring Requirements</u>:

The permittee shall monitor the amount of material processed, in tons, on a weekly basis [401 KAR 52:020, Section 10].

5. <u>Recordkeeping Requirements</u>: The permittee shall maintain the records of amount of material processed, in tons, on a weekly basis [401 KAR 52:020, Section 10].

6. <u>Reporting Requirements</u>:

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

7. <u>Specific Control Equipment Operating Conditions:</u>

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

Emission Unit 05: Cooling Tower (W61)

Description:

Operating Rate: 10.8 million gallons of cooling water per hour Construction commenced: December 1978

<u>APPLICABLE REGULATIONS</u>:

401 KAR 63:010, Fugitive emissions

1. <u>Operating Limitations</u>:

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. <u>Emission Limitations</u>:

- a) Reasonable precautions shall be taken to prevent particulate matter from becoming airborne [401 KAR 63:010, Section 3].
- b) Discharge of visible fugitive dust emissions beyond the property line is prohibited [401 KAR 63:010, Section 3].

Compliance Demonstration: Compliance is assumed when monthly observations indicate that the processes and controls are operating normally.

3. <u>Testing Requirements</u>:

NA

4. <u>Monitoring Requirements</u>:

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

5. <u>Recordkeeping Requirements</u>:

The permittee shall maintain the records of amount cooling water usage and the monthly records of the total dissolved solids content [401 KAR 52:020, Section 10].

6. <u>Reporting Requirements</u>:

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

Emission Unit 06: Existing CI Emergency RICE

| Emission Unit | Description | Manufacture Date | Maximum Continuous Rating | Fuel | Control Equipment |
|------------------|------------------|---------------------|---------------------------------|--------|----------------------|
| 06 | Fire Pump Engine | 1980 | 380HP | Diesel | None |

APPLICABLE REGULATIONS:

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, incorporating by reference 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). Note: D.C. Circuit Court [Delaware v. EPA, 785 F. 3d 1 (D.C. Cir. 2015)] has vacated the provisions in 40 CFR 63, Subpart ZZZZ that contain the 100-hour exemption for operation of

emergency engines for purposes of emergency demand response under 40 CFR 63.6640(f)(2)(ii)-(iii). The D.C. Circuit Court issued the mandate for the vacatur on May 4, 2016.

1. <u>Operating Limitations</u>:

- a) Beginning no later than May 3, 2013, for each unit the permittee shall:
 - 1) change oil and filter every 500 hours of operation or annually, whichever comes first;
 - 2) inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and
 - 3) inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
 - 4) minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-start emission limitations apply.

[40 CFR 63.6602 and 40 CFR 63.6625(h)]

- b) The permittee may operate the emergency engine for as long as there is an emergency situation [40 CFR 63.6640(f)(1)]. The permittee shall operate according to the provisions in 40 CFR 63.6640(f).
- c) The permittee shall operate and maintain the stationary RICE according to the manufacturer's emission-related operating and maintenance instructions, or develop and follow the permittee's maintenance plan which shall provide, to the extent practicable, for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions [40 CFR 63.6640(e)].
- d) The permittee shall be in compliance with the emission limitations and operating limitations in 40 CFR 63, Subpart ZZZZ that apply at all times [40 CFR 63.6605(a)].

2. <u>Emission Limitations</u>:

NA

3. <u>Testing Requirements</u>: NA

4. <u>Specific Monitoring Requirements</u>:

- a) By no later than May 3, 2012, the permittee shall install a non-resettable hour meter if one is not already installed [40 CFR 63.6625(f)].
- b) As an alternative to the requirement to change the oil every 500 hours of operation or annually, the permittee has the option of utilizing an oil analysis program, according to the methods and requirements in 40 CFR 63.6625(i), in order to extend the specified oil change requirements [40 CFR 63.66225(i)].
- c) The permittee shall monitor the amount of fuel usage and hours of operation on a monthly basis [401 KAR 52:020, Section 10].

5. <u>Specific Recordkeeping Requirements</u>:

- a) The permittee shall keep records of each notification and report that is submitted, the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment, records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii), records of all required maintenance performed on the air pollution control and monitoring equipment, and records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation [40 CFR 60.6655(a)].
- b) The permittee shall maintain records of the maintenance conducted on the engine in order to demonstrate that the engine was operated and maintained, including any after-treatment control device, according to the maintenance plane for the engine. [40 CFR 63.6655(e)].
- c) If an engine is not certified to the standards applicable to non-emergency engines (see Table 2d to 40 CFR 63 Subpart ZZZZ), then the permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for demand respond, records shall be kept of the notification of the emergency situation, and the time the engine was operated as part of demand response [40 CFR 63.6655(f)(1)].

6. <u>Specific Reporting Requirements</u>:

 a) Shall report each instance in which the operating limitations have not been met. These instances are deviations from the emission and operating limitation in 40 CFR 63 Subpart ZZZZ and shall be reported according to 40 CFR 63.6650 [40 CFR 63.6640(b)].

- b) Shall report each instance in which the requirements of Table 8 to 40 CFR 63 Subpart ZZZZ, that apply, have not been met [40 CFR 63.6640(e)]. The notifications listed in 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f)(4) and (f)(6), 40 CFR 63.9(b) through (e), and (g) are not required [40 CFR 63.6645(a)(5)].
- c) See Section F.

Emission Unit 07: Existing CI Emergency RICE

| Emission Unit | Description | Manufacture Date | Maximum Continuous Rating | Fuel | Control Equipment |
|------------------|---------------------|---------------------|---------------------------------|--------|----------------------|
| 07 | Emergency Generator | 1980 | 1,130 HP | Diesel | None |

APPLICABLE REGULATIONS:

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, incorporating by reference 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). <u>Note</u>: D.C. Circuit Court [Delaware v. EPA, 785 F. 3d 1 (D.C. Cir. 2015)] has vacated the provisions in 40 CFR 63, Subpart ZZZZ that contain the 100-hour exemption for operation of emergency engines for purposes of emergency demand response under 40 CFR 63.6640(f)(2)(ii)-(iii). The D.C. Circuit Court issued the mandate for the vacatur on May 4, 2016.

1. <u>Operating Limitations</u>:

- a) Emergency stationary RICE 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 RICE beyond 100 hours per calendar year [40 CFR 63.6640 (f)(2)(i)].
- b) The permittee may operate the emergency engine for as long as there is an emergency situation [40 CFR 63.6640(f)(1)]. The permittee shall operate according to the provisions in 40 CFR 63.6640(f).
- c) At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source [40 CFR 63.6605(b)].
- d) The permittee shall use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased prior to January

1, 2015 may be used until depleted [40 CFR 63.6604(b)].

- 2. <u>Emission Limitations</u>: N/A
- 3. <u>Testing Requirements</u>: N/A

4. <u>Specific Monitoring Requirements</u>:

- a) The permittee shall monitor the fuel usage, in gallons, on a monthly basis [401 KAR 52:020, Section 10].
- b) The permittee shall monitor the hours of operation for each unit on a monthly basis [401 KAR 52:020, Section 10].

5. <u>Specific Recordkeeping Requirements</u>:

- a) The permittee shall maintain records of the fuel usage, in gallons, on a monthly basis [401 KAR 52:020, Section 10].
- b) The permittee shall maintain records of the hours of operation for each unit on a monthly basis [401 KAR 52:020, Section 10].

6. <u>Specific Reporting Requirements</u>:

- a) See Section F.
- b) The permittee shall submit all of the notifications in 40 CFR 63.7(b), 40 CFR 63.7(c), 40 CFR 63.8(e), 40 CFR 63.8(f)(4), 40 CFR 63.8 (f)(6), 40 CFR 63.9(b), 40 CFR 63.9(c), 40 CFR 63.9(d), 40 CFR 63.9(e) [40 CFR 63.6645(a)(3)].

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. While these activities are designated as insignificant the permittee shall comply with the applicable regulation and some minimal level of periodic monitoring may be necessary. Process and emission control equipment at each insignificant activity subject to a general applicable regulation shall be inspected monthly and qualitative visible emission evaluation made. The results of the inspections and observations shall be recorded in a log, noting color, duration, density (heavy or light), cause and any conservative actions taken for any abnormal visible emissions.

| Description | Generally Applicable Regulation |
|--|--|
| 1. Bottom Ash Handling | 401 KAR 63:010 |
| 2. Diesel fuel storage tank | N/A |
| 3. Diesel fuel storage tank (560 gallons) | N/A |
| 4. Gasoline storage tank (2,000 gallons) | N/A |
| 5. Diesel fuel storage | N/A |
| 6. Kerosene tank-North | N/A |
| 7. Kerosene tank-South | N/A |
| 8. Mobile kerosene tank | N/A |
| 9. DBA tank-T1 | N/A |
| 10. DBA tank-T2 | N/A |
| 11. Diesel fuel storage tank | N/A |
| 12. Diesel fuel storage tank (300,000 gallons) | N/A |
| 13. Space heater, W64 (propane) | N/A |
| 14. Space heater, W65 (propane) | N/A |
| 15. Storage tank for emergency diesel generator | N/A |
| 16. Day tank for diesel generator (85 gallons) | N/A |
| 17. Pressure Washer, Maintenance (Propane) | N/A |
| 18. Pressure Washer, Coal Handling (Diesel) | N/A |
| 19. Cooling tower for water treatment operation | N/A |
| 20. Closed cooling water system | N/A |
| 21. Demineralizer process operation | N/A |
| 22. Freeze protection operation for coal conveyors | N/A |
| 23. Sewage treatment plant operations | N/A |
| 24.Wastewater treatment plant operations | N/A |
| 25. Potable water treatment operations | N/A |
| 26. Pneumatic conveying of flyash/storage | 401 KAR 63:010 |
| 27. Dry Sorbent Injection System (DSI) | 401 KAR 59:010, Permittee shall monitor the amount of hydrated received and processed on a weekly basis. |

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 26; 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. Particulate matter, sulfur dioxide, nitrogen oxides, 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.

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 (5) 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 permittee 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 shut down, 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 report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [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].
- 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:
 - 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.

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

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 | U.S. EPA Region 4 |
|--------------------------------|------------------------|
| Owensboro Regional Office | Air Enforcement Branch |
| 3032 Alvey Park Dr. W. STE 700 | Atlanta Federal Center |
| Owensboro, KY 42303-2191 | 61 Forsyth St. |
| | 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.

SECTION G - GENERAL PROVISIONS

- 1. <u>General Compliance Requirements</u>
 - 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.

- 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.].
- 1. 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].
- 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.
- 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 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, Start-Up, and Initial Compliance Demonstration Requirements

No construction authorized by this permit.

- 5. <u>Testing Requirements</u>
 - 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 76510 (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.
- 7. <u>Emergency Provisions</u>
 - 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
 - (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. <u>Risk Management Provisions</u>
 - a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center P.O. Box 1515 Lanham-Seabrook, MD 20703-1515.

b. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None

SECTION J - ACID RAIN

1. <u>Statutory and Regulatory Authority</u>

In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Kentucky Environmental and Public Protection Cabinet, Division for Air Quality issues this permit pursuant to 401 KAR 52:020, Permits, 401 KAR 52:060, Acid Rain Permit, and 40 CFR Part 76.

2. <u>Permit Requirements:</u>

This Acid Rain Permit covers Acid Rain Unit 1 (Emission Units 01) at the Wilson Station (ORIS Code: 6823). Unit 1 is coal-fired based load electric generating units. The Acid Rain Permit for Phase II is hereby incorporated into and made part of this permit and the permittee shall comply with the standard requirements and special provisions set forth in the application [40 CFR 72.9(a)(2)].

3. Acid Rain Program Emission and Operating Limitations:

The applicable Acid Rain emission limitations for the permittee are as follows [40 CFR 73.10, Table 2, 40 CFR 76.5, and 40 CFR 76.11]:

Plant Name: D. B. Wilson Station

Affected Unit: EU 01 (W1)

| SO ₂ Allowances | Year | | | | |
|-----------------------------------|--------|--------|--------|--------|--------|
| | 2016 | 2017 | 2018 | 2019 | 2020 |
| Tables 2, 3 or 4 of40 CFR Part 73 | 12487* | 12487* | 12487* | 12487* | 12487* |

SECTION J - ACID RAIN PERMIT (CONTINUED)

NO_x Requirements

| NO _x Limits | i) Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NOx emissions averaging plan for this unit. This plan is effective for calendar year 2016 through 2020. Under this plan, this unit's NOx emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.40 lb/MMBtu, or a system-wide ACEL average of 0.47 lb/MMBtu. |
|------------------------|---|
| | ii) Under this plan, the actual BTU-weighted annual average NOx emissions rate for the units in the plan shall be less than or equal to the BTU-weighted annual average NOx emissions rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emissions limitations under 40 CFR Part 76.5, 76.6, or 76.7. |
| | If the designated representative demonstrates that the requirement of condition ii) (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emissions limitation set in condition (i). |
| | In addition to the described NOx compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NOx compliance plan and requirements covering excess emissions. |

* 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

4. Compliance Plan:

- a) The permittee shall operate in compliance with the requirements contained in the Acid Rain application and incorporated into this permit [40 CFR 72.9].
- b) The Division approves the NO_X Average Plan submitted for these units for the NO_X Emissions Compliance Plan, effective for the duration of this permit. Under this plan, a unit's NO_X emissions shall not exceed the applicable annual average alternative contemporaneous emissions limitation (ACEL) listed in Subsection 3(i). [40 CFR 76]
 - 1) The actual Btu-weighted annual average NO_X emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_X emission rate for the same units had they been operated, during the same period of time, in compliance with the individual applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7 and listed in Subsection 3(i).

SECTION J - ACID RAIN PERMIT (CONTINUED)

- For each unit, if the designated representative demonstrates that the requirement of Subsection 4(b)(1) is met for the plan year, then the unit shall be deemed to be in compliance for the year with its ACEL and associated heat input limit in Subsection 3.
- 3) If the designated representative cannot make the demonstration in Subsection 4(b)(1), according to 40 CFR 76.11(d)(1)(ii)(A), for the plan year and if a unit fails to meet the annual average ACEL or has a heat input greater than the applicable value listed in Subsection 3, then excess emissions of NO_X have occurred during the year for that unit.
- 4) 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.

SECTION K – CLEAN AIR INTERSTATE RULE (CAIR)

1) 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 NOx annual trading program, and 401 KAR 51:220, CAIR NOx ozone season trading program and 401 KAR 51:230, CAIR SO₂ Trading Program.

2) CAIR Application

The CAIR application for one electrical generating unit was submitted to the Division and received on September 10, 2007. The standard requirements and special provisions set forth in the application are hereby incorporated into and made part of this CAIR Permit. [401 KAR 51:210, 401 KAR 51:220, and 401 KAR 51:230]. 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.

The Affected unit is one (1) 4585 MMBtu/hr pulverized coal-fired steam generator (Emission Unit 01). The unit has a nameplate capacity to generate greater than 25 megawatts of electricity, which is offered for sale. The unit uses coal as fuel source, and is 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.

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR)

The TR subject unit, and the unit-specific monitoring provisions, at this source are identified in the following table. This unit is subject to the requirements for the TR NO_x Annual Trading Program, TR NO_x Ozone Season Trading Program, and TR SO_2 Group 1 Trading Program.

| Unit ID: 01, Pu | lverized coal fire | ed, dry bottom, w | all fired boiler | | |
|-----------------|---|--|---|---|--|
| 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 | Х | | | | |
| 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 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 <a href="https://www.epa.exa/aimmal.state/emissions/state/

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 SO_2 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, 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 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 AAAAA 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 AAAAA 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.
 - 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 shall 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 shall 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 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.

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.

- 1) 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).
- 2) 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.
 - 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 BBBBB 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 exceed the state during a control period exceeds the 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 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.
 - 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 shall 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 shall 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 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.

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 SO_2 Group 1 unit at the source shall hold the TR SO_2 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.
 - 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 SO_2 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 SO_2 emissions exceeds the respective common designated representative's assurance level; and

- B) The amount by which total SO_2 emissions from all TR SO_2 Group 1 units at TR SO_2 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.
- 3) Compliance periods.
 - 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 shall 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 shall be a TR SO_2 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 SO_2 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 SO_2 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).

e) Additional recordkeeping and reporting requirements.

- 1) Unless otherwise provided, the owners and operators of each TR SO_2 Group 1 source and each TR SO_2 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 SO_2 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.

Commonwealth of Kentucky Energy and Environment Cabinet Department for Environmental Protection Division for Air Quality 200 Fair Oaks Lane, 1st Floor Frankfort, Kentucky 40601 (502) 564-3999

Final

AIR QUALITY PERMIT

Issued under 401 KAR 52:020

| Permittee Name: | Kentucky Utilities Company |
|------------------|--|
| Mailing Address: | Louisville, Gas & Electric Company |
| - | P.O. Box 32010 Louisville, KY 40232 |

Source Name:Kentucky Utilities Company
Green River Generating StationMailing Address:811 Power Plant Dr. Central City, KY 42330

Source Location: Central City, Kentucky 42330

(270) 687-7304

Muhlenberg

Permit: Agency Interest: Activity: Review Type: Source ID: V-12-018 R1 3228 APE20160001 Title V, Operating 21-177-00001 Owensboro Regional Office

Regional Office: Owensboro Regional Office 3032 Alvey Park Dr. W., Suite 700 Owensboro, KY 42303

County:

ApplicationComplete Date:March 23, 2012Issuance Date:November 12, 2013Revision Date:September 2, 2016Expiration Date:November 12, 2018

Sean alteri

Sean Alteri, Director Division for Air Quality

Version 10/16/13

TABLE OF CONTENTS

| SECTION | ISSUANCE | PAGE |
|--|------------|------|
| A. PERMIT AUTHORIZATION | Renewal | 1 |
| B. EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS | Renewal | 2 |
| C. INSIGNIFICANT ACTIVITIES | Revision 1 | 21 |
| D. SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS | Renewal | 22 |
| E. SOURCE CONTROL EQUIPMENT REQUIREMENTS | Renewal | 23 |
| F. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS | Renewal | 24 |
| G. GENERAL PROVISIONS | Renewal | 27 |
| H. ALTERNATE OPERATING SCENARIOS | Renewal | 33 |
| I. COMPLIANCE SCHEDULE | Renewal | 34 |
| J. ACID RAIN | Renewal | 35 |
| K. CLEAN AIR INTERSTATE RULE (CAIR) | Renewal | 42 |
| L. CROSS-STATE AIR POLLUTION RULE (CSAPR) | Renewal | 43 |

Prior permit V-06-014

| | Permit type | Activity# | Complete Date | Issuance Date | Summary of Action |
|-------------|----------------|-------------|------------------|------------------|------------------------|
| V-12-018 | Renewal | APE20120001 | 3/26/12 | 8/12/13 | Added MATS |
| V-12-018 R1 | Minor | APE20160001 | 3/14/16 | 9/2/16 | Revising Insignificant |
| | Revision | | | | Activities List |

Permit Number: V-12-018 R1

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.

Emission Unit 03

Boiler #4

Description:

| Pulverized coal-fired, dry bottom, w | all-fired indirect heat exchanger |
|--------------------------------------|---|
| Construction Commenced: | prior to 1954 |
| Heat Input Capacity: | 976 million British thermal units per hour (MMBtu/hr) |
| Primary Fuel: | Bituminous coal |
| Secondary Fuel: | #2 fuel oil used for startup and flame stabilization |
| Controls: | ESP, constructed 1973 |
| | Low-NO _x burners, constructed 2002 |
| | |

APPLICABLE REGULATIONS:

401 KAR 51:160, NO_x Requirements for Large Utility and Industrial Boilers, incorporating by reference **40 CFR Part 96**, NO_x Budget Trading Program and CAIR NO_x and SO_x Trading Programs for State Implementation Plans

- **401 KAR 51:210**, CAIR NO_x Annual Trading program
- 410 KAR 51:220, CAIR NO_x Ozone Season Trading Program
- 401 KAR 52:230, CAIR SO₂ Trading Program

401 KAR 52:060, Acid Rain Permits, incorporating by reference 40 CFR 60 Parts 72 to 78, Acid Rain Provisions

401 KAR 61:015, Existing indirect heat exchangers

40 CFR 60, Appendix A

40 CFR 63, Subpart UUUUU, National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-fired Electric Utility Steam Generating Units

40 CFR 64, Compliance Assurance Monitoring (for PM)

40 CFR 75, Continuous Emissions Monitoring

1. **Operating Limitations:**

The permittee shall comply with all applicable provisions of 40 CFR 63.9991, no later than April 16, 2015.

2. <u>Emission Limitations</u>:

a. Particulate matter emissions shall not exceed 0.29 lb/MMBtu based on a three (3)-hour average [401 KAR 61:015, Section 4(4)].

Compliance Demonstration Method:

Compliance with the particulate matter emission limit shall be demonstrated by continuous opacity monitoring systems (COMS), as required in sub-Section 4.b., **Specific Monitoring Requirements** [401 KAR 52:020, Section 10].

- b. Visible emissions shall not exceed 20% opacity based on a six (6)-minute average except that a maximum of 40% opacity is allowed for a period of not more than six (6) minutes in any sixty (60) consecutive minutes [401 KAR 61:015, Section 4(2)(a)], and:
- c. 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 [401 KAR 61:015, Section 4(2)(c)].

Compliance Demonstration Method:

Compliance with the opacity standard shall be demonstrated by Reference Method 9, as required in sub-Section 3.e., <u>Testing Requirements</u> [401 KAR 52:020, Section 10].

d. Emissions of sulfur dioxide shall not exceed 4.57 lb/MMBtu, based on a twenty-four (24) hour average [401 KAR 61:015, Section 5(1)].

Compliance Demonstration Method:

Compliance with SO₂ emission limits shall be demonstrated by SO₂ CEMS as required in sub-Section 4.e., <u>Specific Monitoring Requirements</u> [401 KAR 52:020, Section 10].

e. The permittee shall comply with all applicable provisions of 40 CFR 63.9991, no later than April 16, 2015.

General MATS Compliance Demonstration Method:

- i. The permittee shall comply with 40 CFR 63, Subpart UUUUU, no later than April 16, 2015 [40 CFR 63.9984(b)].
- ii. The permittee shall meet the notification requirements in 40 CFR 63.10030 according to the schedule in 40 CFR 63.10030 and in 40 CFR 63, Subpart A. Some of the notifications must be submitted before compliance with the emission limits and work practice standards in 40 CFR 63, Subpart UUUUU is required [40 CFR 63.9984(c)].
- iii. The permittee shall demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than one-hundred-eighty (180) days after the applicable date in paragraph (b) or (c) of 40 CFR 63.9984 [40 CFR 63.9984(f)].
- iv. The permittee shall demonstrate continuous compliance according to 40 CFR 63.10000 through 40 CFR 63.10023, no later than April 16, 2015.

3. <u>Testing Requirements</u>:

- a. Within six (6) months of the issuance date of the final permit, the permittee shall submit a schedule to conduct a performance test for particulate matter compliance within one (1) year following issuance of this permit [401 KAR 50:045, Section 1].
- b. Testing shall be conducted in accordance with 401 KAR 50:045, Performance Tests. Testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit [40 CFR 64.4(c)(1)].
- c. In accordance with paragraph 4.c., <u>Specific Monitoring Requirements</u>, the permittee shall submit a schedule within six (6) months from the date of issuance of the final permit to conduct testing within one (1) year following the issuance of this permit to establish the correlation between opacity and particulate matter emissions [401 KAR 50:045, Section 1].
- d. If no additional stack tests are performed pursuant to sub-Section 4.c., <u>Specific</u> <u>Monitoring Requirements</u>, the permittee shall conduct a performance test for particulate matter emissions by the start of the fourth (4th) year of the term of this permit to demonstrate compliance with the applicable standard [401 KAR 50:045, Section 1].
- e. If no U.S. EPA Reference Method 9 tests are performed pursuant to sub-Section 4.a.ii, **Specific Monitoring Requirements**, then the permittee shall determine the opacity of emissions from the stack at least once every fourteen (14) boiler operating days to demonstrate compliance with the opacity standard. If no Method 9 test is completed during the time period, the reason for not completing a test shall be documented and the permittee may use the continuous opacity monitoring system (COM) for assuring compliance with the visible emission limitation during that period [401 KAR 50:045, Section 1].
- f. The permittee shall comply with all applicable provisions of 40 CFR 63.10005 through 40 CFR 63.10009 and 40 CFR 63.10011, no later than April 16, 2015.

4. <u>Specific Monitoring Requirements</u>:

- a. A COM system shall conform to requirements which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement. Excluding exempted time periods, if any three six (6)-minute average opacity values exceed the opacity standard, the permittee shall, as appropriate:
 - i. Accept the readout from the COM as an indicator of equipment performance and perform an inspection of the COM and/or control equipment and make any repairs or;
 - ii. Within thirty (30) minutes after the third consecutive COM-indicated exceedance of the opacity standards, if emissions are visible, initiate a determination of opacity using U.S. EPA reference method 9. Also within thirty (30) minutes after the third consecutive COM indicated exceedance, inspect the COM and/or control equipment, and initiate any repairs. If a Method 9 test cannot be performed, the reason for not

performing the test shall be documented [401 KAR 61:005, Section 3, and Performance Specification 1 of 40 CFR 60, Appendix B].

- iii. Within thirty (30) minutes after the third consecutive COM-indicated exceedance of the opacity standards, if emissions are visible, initiate a determination of opacity using U.S. EPA Reference Method 9. Also within thirty (30) minutes after the third consecutive COM indicated exceedance, inspect the COM and/or control equipment, and initiate any repairs. If a Method 9 test cannot be performed, the reason for not performing the test shall be documented [401 KAR 61:005, Section 3, and Performance Specification 1 of 40 CFR 60, Appendix B].
- b. To meet the monitoring requirements for particulate matter, the permittee shall use a COM [401 KAR 61:005, Section 3(6)]. The 20% opacity emission limit shall be used as an indicator of particulate matter emissions [40 CFR 64.4(a)(1)].
- c. The facility shall continuously record COM data collected during the required PM performance test. COM Data recorded during each test run shall not exceed 20% based on a six-minute average. The 20% opacity indicator level shall provide reasonable assurance that particulate matter emissions are in compliance. There may be short-term exceedances during the testing period required to establish the indicator level. These exceedances will not be considered non-compliance periods since the testing is required to establish a permit requirement.

Excluding exempted time periods:

- i. If any three (3)-hour average opacity value exceeds 20%, or the current indicator level, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the COM system and make any repairs.
- ii If five percent or greater of the COM data (three (3)-hour average of opacity values) recorded in a calendar quarter shows excursions above 20%, or the current 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 required by Section G., <u>General Provisions</u>, of this permit, 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, Performance Tests.[40 CFR 64.4(c)(1)].
- d. The permittee shall monitor the electrostatic precipitator's transformer/rectifier set primary/secondary currents and voltages on a daily basis [401 KAR 52:020, Section 10].
- e. Continuous emissions monitoring systems (CEMS) shall be installed, calibrated, maintained, and operated for measuring nitrogen oxides, sulfur dioxide, and either oxygen or carbon dioxide emissions. Excluding exempted time periods, if any twenty-four (24)-hour average sulfur dioxide value exceeds the standard, the permittee shall, as

appropriate, initiate an investigation for the cause of the exceedance and/or the CEM system and make any necessary repairs or take any corrective actions as soon as practicable [401 KAR 61:005, Section 3, Performance Specification 2 of Appendix B of 40 CFR 60, and 40 CFR 75, Appendix A].

- f. The sulfur content of solid fuels, as burned, in percent by weight, shall be determined in accordance with methods specified by the Division on a weekly basis [401 KAR 61:015, Section 6(1)].
- g. The rate of each fuel burned shall be measured daily. The heating value and ash content of fuels shall be measured at least once per week. The average electrical output, and the minimum and hourly generation rate shall be measured daily [401 KAR 61:015, Section 6(3)].
- h. The Division may provide a temporary exemption from the monitoring and reporting requirements of 401 KAR 61:005, Section 3, for the continuous monitoring system during any period of monitoring system malfunction, provided that the owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as possible [401 KAR 61:005, Section 3(5)].
- i. The permittee shall monitor the duration of startup [401 KAR 52:020, Section 10].
- j. The permittee shall comply with all applicable continuous monitoring requirements of 40 CFR 63.10010, 40 CFR 63.10020, and 40 CFR 63.10021, no later than April 16, 2015.

5. <u>Specific Recordkeeping Requirements</u>:

- a. The permittee shall maintain a file of all information reported in the quarterly summaries, in accordance with 401 KAR 61:005, Section 3(15) and 401 KAR 61:015, Section 6, with the exception that the records shall be maintained for a period of five (5) years [401 KAR 52:020, Section 10].
- b. The permittee shall maintain records of:
 - i. Each fuel analysis;
 - ii. The rate of fuel burned for each fuel type, on a daily basis;
 - iii. The heating value, in Btu/lb, sulfur content, in percent by weight, and ash content, in percent by weight, of fuel as-burned on a weekly basis;
 - iv. The average electrical output and the minimum and maximum hourly generation rate on a daily basis;
 - v. When no excess emissions have occurred and the continuous monitoring systems(s) have not been inoperative, repaired, or adjusted;

- vi. Data collected as necessary to convert monitoring data to the units of the applicable standard;
- vii. Results of all compliance tests; and
- viii. Percentage of the COM data (excluding exempted time periods) showing excursions above the opacity standard and the opacity indicator level [401 KAR 61:005, Section 3(15) and 401 KAR 61:015, Section 6].
- c. The permittee shall record the voltage and amperage readings of the precipitator transformer/rectifier sets, once per shift. If the voltage and amperage readings are outside of normal range then corrective action shall be initiated, taking into account current operating conditions, type of fuel, severity of the situation, and system requirements for the unit. Records of voltage and amperage readings shall be maintained with long-term operational records for a period of five (5) years [401 KAR 52:020, Section 10].
- d. The permittee shall keep visible observation records and Method 9 observations in a designated logbook or electronic file. Records shall be maintained for five (5) years [401 KAR 52:020, Section 10].
- e. The permittee shall record the durations of start-ups [401 KAR 52:020, Section 10].
- f. The permittee shall comply with all applicable recording provisions of 40 CFR 63.10030 through 40 CFR 63.10033, no later than April 16, 2015.

6. <u>Specific Reporting Requirements</u>:

- a. Minimum data requirements which follow shall be maintained and furnished in the format specified by the Division:
 - i. The permittee shall submit for every calendar quarter, a written report of excess emissions. Data reporting shall correspond to the emission standard averaging period. All quarterly reports shall be submitted electronically or postmarked by the thirtieth (30th) day following the end of each calendar quarter.
 - ii. The permittee shall submit for every calendar quarter, a written report of excess opacity emissions and the nature and cause of excess opacity emissions. The summary shall consist of the magnitude in actual percent opacity of six (6)-minute averages of opacity greater than the opacity standard for each hour of operation. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity. Opacity data shall be reported in electronic format acceptable to the Division.
 - iii. For gaseous measurements, the summary shall consist of hourly averages in the units of the applicable standard. The hourly averages shall not appear in the written summary, but shall be provided in electronic files only.

- iv. The date and time identifying each period during which a continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the Division whenever system repairs or adjustments have been made.
- v. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be included in the report [401 KAR 61:005, Section 3(15)].
- b. The permittee shall report the number of excursions (excluding exempted time periods) above the opacity standard and the opacity indicator level, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity standard in each calendar quarter [401 KAR 52:020, Section 10].
- c. For exceedances that occur as a result of start-up, the permittee shall report:
 - i. The type of start-up (cold, warm, or hot);
 - ii. Whether or not the duration of start-up exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of why the start-up exceeded recommended or typical durations [401 KAR 52:020, Section 10].
- d. The permittee shall comply with all applicable reporting provisions of 40 CFR 63.10030 through 40 CFR 63.10033, no later than April 16, 2015.

7. <u>Specific Control Equipment Operating Conditions</u>:

- a. The electrostatic precipitator (ESP) shall be operated to maintain compliance with permitted emission limitations in accordance with manufacturer's specifications and good operating practices [401 KAR 50:055].
- b. Records regarding the maintenance of the ESP shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E., Source Control Equipment Requirements, for further requirements.

Emission Unit 04

Boiler #5

Description:

| Pulverized coal-fired, dry bottom, w | all-fired indirect heat exchanger |
|--------------------------------------|---|
| Construction Commenced: | prior to 1959 |
| Heat Input Capacity: | 1,260 million British thermal units per hour (MMBtu/hr) |
| Primary Fuel: | Bituminous coal |
| Secondary Fuel: | #2 fuel oil used for startup and flame stabilization |
| Controls: | ESP, constructed 1975 |
| | Low-NO _x burners, constructed 1995 |

APPLICABLE REGULATIONS:

401 KAR 51:160, NO_x Requirements for Large Utility and Industrial Boilers, incorporating by reference **40 CFR Part 96**, NO_x **Budget Trading Program and CAIR NO**_x **and SO**_x **Trading Programs for State Implementation Plans**

- **401 KAR 51:210**, CAIR NO_x Annual Trading program
- 410 KAR 51:220, CAIR NO_x Ozone Season Trading Program
- 401 KAR 52:230, CAIR SO₂ Trading Program

401 KAR 52:060, Acid Rain Permits, incorporating by reference 40 CFR 60 Parts 72 to 78, Acid Rain Provisions

401 KAR 61:015, Existing indirect heat exchangers

40 CFR 60, Appendix A

40 CFR 63, Subpart UUUUU, National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-fired Electric Utility Steam Generating Units

40 CFR Part 64, Compliance Assurance Monitoring (for PM)

40 CFR Part 75, Continuous Emissions Monitoring

1. **Operating Limitations:**

The permittee shall comply with all applicable provisions of 40 CFR 63.9991, no later than April 16, 2015.

2. <u>Emission Limitations</u>:

a. Particulate matter emissions shall not exceed 0.14 lb/MMBtu based on a three (3)-hour average [401 KAR 61:015, Section 4(4)].

Compliance Demonstration Method:

Compliance with the particulate matter emission limit shall be demonstrated by continuous opacity monitoring systems (COMS), as required in sub-Section 4.b., **Specific Monitoring Requirements** [401 KAR 52:020, Section 10].

- b. Visible emissions shall not exceed 20% opacity based on a six (6)-minute average except that a maximum of 40% opacity is allowed for a period of not more than six (6) minutes in any sixty (60) consecutive minutes [401 KAR 61:015, Section 4(2)(a)], and:
- c. 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 [401 KAR 61:015, Section 4(2)(c)].

Compliance Demonstration Method:

Compliance with the opacity standard shall be demonstrated by Reference Method 9, as required in sub-Section 3.e, <u>Testing Requirements</u> [401 KAR 52:020, Section 10].

d. Emissions of sulfur dioxide shall not exceed 4.57 lb/MMBtu, based on a twenty-four (24) hour average [401 KAR 61:015, Section 5(1)].

Compliance Demonstration Method:

Compliance with SO₂ emission limits shall be demonstrated by SO₂ CEMS as required in sub-Section 4.e., <u>Specific Monitoring Requirements</u> [401 KAR 52:020, Section 10].

e. The permittee shall comply with all applicable provisions of 40 CFR 63.9991, no later than April 16, 2105.

General MATS Compliance Demonstration Method:

- i. The permittee shall comply with 40 CFR 63, Subpart UUUUU, no later than April 16, 2015 [40 CFR 63.9984(b)].
- ii. The permittee shall meet the notification requirements in 40 CFR 63.10030 according to the schedule in 40 CFR 63.10030 and in 40 CFR 63, Subpart A. Some of the notifications must be submitted before compliance with the emission limits and work practice standards in 40 CFR 63, Subpart UUUUU is required [40 CFR 63.9984(c)].
- iii. The permittee shall demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than one-hundred-eighty (180) days after the applicable date in paragraph (b) or (c) of 40 CFR 63.9984 [40 CFR 63.9984(f)].
- iv. The permittee shall demonstrate continuous compliance according to 40 CFR 63.10000 through 40 CFR 63.10023, no later than April 16, 2015.

3. <u>Testing Requirements</u>:

- a. Within six (6) months of the issuance date of the final permit, the permittee shall submit a schedule to conduct a performance test for particulate matter compliance within one (1) year following issuance of this permit [401 KAR 50:045, Section 1].
- b. Testing shall be conducted in accordance with 401 KAR 50:045, Performance Tests. Testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit [40 CFR 64.4(c)(1)].
- c. In accordance with paragraph 4.c., <u>Specific Monitoring Requirements</u>, the permittee shall submit a schedule within six (6) months from the date of issuance of the final permit to conduct testing within one (1) year following the issuance of this permit to establish the correlation between opacity and particulate matter emissions [401 KAR 50:045, Section 1].
- d. If no additional stack tests are performed pursuant to sub-Section 4.c., <u>Specific</u> <u>Monitoring Requirements</u>, the permittee shall conduct a performance test for particulate matter emissions by the start of the fourth (4th) year of the term of this permit to demonstrate compliance with the applicable standard [401 KAR 50:045, Section 1].
- e. If no U.S. EPA Reference Method 9 tests are performed pursuant to sub-Section 4.a.ii, **Specific Monitoring Requirements**, then the permittee shall determine the opacity of emissions from the stack at least once every fourteen (14) boiler operating days to demonstrate compliance with the opacity standard. If no Method 9 test is completed during the time period, the reason for not completing a test shall be documented and the permittee may use the continuous opacity monitoring system (COM) for assuring compliance with the visible emission limitation during that period [401 KAR 50:045, Section 1].
- f. The permittee shall comply with all applicable provisions of 40 CFR 63.10005 through 40 CFR 63.10009 and 40 CFR 63.10011, no later than April 16, 2015.

4. <u>Specific Monitoring Requirements</u>:

- a. A COM system shall conform to requirements, which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement. Excluding exempted time periods, if any three six (6)-minute average opacity values exceed the current opacity standard, the permittee shall, as appropriate:
 - i. Accept the readout from the COM as an indicator of equipment performance and perform an inspection of the COM and/or control equipment and make any repairs or;
 - ii. Within thirty (30) minutes after the third consecutive COM-indicated exceedance of the opacity standards, if emissions are visible, initiate a determination of opacity using U.S. EPA Reference Method 9. Also within thirty (30) minutes after the third consecutive COM indicated exceedance, inspect the COM and/or control equipment, and initiate any repairs. If a Method 9 test cannot be performed, the reason for not

performing the test shall be documented [401 KAR 61:005, Section 3, and Performance Specification 1 of 40 CFR 60, Appendix B].

- b. To meet the monitoring requirements for particulate matter, the permittee shall use a COM [401 KAR 61:005, Section 3(6)]. The 15% opacity limit shall be used as an indicator of compliance with the particulate matter emissions limit [40 CFR 64.4(a)(1)].
- c. The facility shall continuously record COM data collected during the required PM performance test. COM Data recorded during each test run shall not exceed 15% based on a six (6)-minute average. The 15% opacity indicator level shall provide reasonable assurance that particulate matter emissions are in compliance. There may be short-term exceedances during the testing period required to establish the indicator level. These exceedances will not be considered non-compliance periods since the testing is required to establish a permit requirement.

Excluding exempted time periods:

- i. If any three (3)-hour average opacity value exceeds 15%, or the current indicator level, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the COM system and make any repairs.
- ii. If five percent or greater of the COM data (three (3)-hour average of opacity values) recorded in a calendar quarter shows excursions above 15%, or the current 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 required by Section G., <u>General Provisions</u>, of this permit, 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, Performance Tests [40 CFR 64.4].
- d. The permittee shall monitor the electrostatic precipitator's transformer/rectifier set primary/secondary currents and voltages on a daily basis [401 KAR 52:020, Section 10].
- e. Continuous emissions monitoring systems (CEMS) shall be installed, calibrated, maintained, and operated for measuring nitrogen oxides, sulfur dioxide, and either oxygen or carbon dioxide emissions. Excluding exempted time periods, if any twenty-four (24)-hour average sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation for the cause of the exceedance and/or the CEM system and make any necessary repairs or take any corrective actions as soon as practicable [401 KAR 61:005, Section 3, Performance Specification 2 of Appendix B of 40 CFR 60, and 40 CFR 75, Appendix A].
- f. The sulfur content of solid fuels, as burned, in percent by weight, shall be determined in accordance with methods specified by the Division on a weekly basis [401 KAR 61:015, Section 6(1)].

- g. The rate of each fuel burned shall be measured daily. The heating value and ash content of fuels shall be measured at least once per week. The average electrical output, and the minimum and hourly generation rate shall be measured daily [401 KAR 61:015, Section 6(3)].
- h. The Division may provide a temporary exemption from the monitoring and reporting requirements of 401 KAR 61:005, Section 3, for the continuous monitoring system during any period of monitoring system malfunction, provided that the owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as possible [401 KAR 61:005, Section 3(5)].
- i. The permittee shall monitor the duration of startup [401 KAR 52:020, Section 10].
- j. The permittee shall comply with all applicable continuous monitoring requirements of 40 CFR 63.10010, 40 CFR 63.10020, and 40 CFR 63.10021.

5. <u>Specific Recordkeeping Requirements</u>:

- a. The permittee shall maintain a file of all information reported in the quarterly summaries, in accordance with 401 KAR 61:005, Section 3(15) and 401 KAR 61:015, Section 6, with the exception that the records shall be maintained for a period of five (5) years [401 KAR 52:020, Section 10].
- b. The permittee shall maintain records of:
 - i. Each fuel analysis;
 - ii. The rate of fuel burned for each fuel type, on a daily basis;
 - iii. The heating value, in Btu/lb, sulfur content, in percent by weight, and ash content, in percent by weight, of fuel as-burned on a weekly basis;
 - iv. The average electrical output and the minimum and maximum hourly generation rate on a daily basis;
 - v. When no excess emissions have occurred and the continuous monitoring systems(s) have not been inoperative, repaired, or adjusted;
 - vi. Data collected as necessary to convert monitoring data to the units of the applicable standard;
 - vii. Results of all compliance tests; and
 - viii. Percentage of the COM data (excluding exempted time periods) showing excursions above the opacity standard and the opacity indicator level [401 KAR 61:005, Section 3(15) and 401 KAR 61:015, Section 6].

- c. The permittee shall record the voltage and amperage readings of the precipitator transformer/rectifier sets, once per shift. If the voltage and amperage readings are outside of normal range then corrective action shall be initiated, taking into account current operating conditions, type of fuel, severity of the situation, and system requirements for the unit. Records of voltage and amperage readings shall be maintained with long-term operational records for a period of five (5) years [401 KAR 52:020, Section 10].
- d. The permittee shall keep visible observation records and Method 9 observations in a designated logbook or electronic file. Records shall be maintained for five (5) years [401 KAR 52:020, Section 10].
- e. The permittee shall record the durations of start-ups [401 KAR 52:020, Section 10].
- f. The permittee shall comply with all applicable recording provisions of 40 CFR 63.10030 through 40 CFR 63.10033, no later than April 16, 2015.

6. <u>Specific Reporting Requirements</u>:

- a. Minimum data requirements which follow shall be maintained and furnished in the format specified by the Division:
 - i. The permittee shall submit for every calendar quarter, a written report of excess emissions. Data reporting shall correspond to the emission standard averaging period. All quarterly reports shall be submitted electronically or postmarked by the thirtieth (30^{th}) day following the end of each calendar quarter.
 - ii. The permittee shall submit for every calendar quarter, a written report of excess opacity emissions and the nature and cause of excess opacity emissions. The summary shall consist of the magnitude in actual percent opacity of six (6)-minute averages of opacity greater than the opacity standard for each hour of operation. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity. Opacity data shall be reported in electronic format acceptable to the Division.
 - iii. For gaseous measurements, the summary shall consist of hourly averages in the units of the applicable standard. The hourly averages shall not appear in the written summary, but shall be provided in electronic files only.
 - iv. The date and time identifying each period during which a continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the Division whenever system repairs or adjustments have been made.

- v. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be included in the report [401 KAR 61:005, Section 3(15)].
- b. The permittee shall report the number of excursions (excluding exempted time periods) above the opacity standard and opacity indicator level, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity standard in each calendar quarter [401 KAR 52:020, Section 10].
- c. For exceedances that occur as a result of start-up, the permittee shall report:
 - i. The type of start-up (cold, warm, or hot);
 - ii. Whether or not the duration of start-up exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of why the start-up exceeded recommended or typical durations [401 KAR 52:020, Section 10].
- d. The permittee shall comply with all applicable reporting provisions of 40 CFR 63.10030 through 40 CFR 63.10033, no later than April 16, 2015.

7. <u>Specific Control Equipment Operating Conditions</u>:

- a. The electrostatic precipitator (ESP) shall be operated to maintain compliance with permitted emission limitations in accordance with manufacturer's specifications and good operating practices [401 KAR 50:055].
- b. Records regarding the maintenance of the ESP shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E., Source Control Equipment Requirements, for further requirements.

Emission Unit 05 (Points 04, 05, 06, and 07)

Coal Handling Operations

Description:

The Coal Handling System Includes:
truck unloading operations
1 coal receiving hopper
3 coal conveyor belts and transfer points (A, B, and C)
1 coal crusher
coal stockpile operations
haul roads

Maximum Operating Rate:400 ton/hr (each)Construction Commenced:on or before1950

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:
 - i. Application and maintenance of asphalt, application of water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;
 - ii. 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.
 - iii. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne.
 - iv. The maintenance of paved roadways in a clean condition.
 - v. The prompt removal of earth or other material from a paved street onto which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water.

[401 KAR 63:010, Section 3].

- b. Discharge of visible fugitive dust emissions beyond the property line is prohibited [401 KAR 63:010, Section 3].
- c. Open bodied trucks, operating outside company property, transporting materials likely to become airborne shall be covered at all times when in motion [401 KAR 63:010, Section 4(1)].

d. The permittee shall not allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway [401 KAR 63:010, Section 4(4)].

2. <u>Emission Limitations:</u>

N/A

3. <u>Testing Requirements:</u>

Testing shall be conducted at such times as may be requested by the cabinet in accordance with 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 4.

4. Specific Monitoring Requirements:

- a. The permittee shall monitor the amount of coal received, in tonnages, monthly [401 KAR 52:020, Section 10].
- b. Visual observations shall be made on a weekly basis each day of operation, of all operations and control equipment to ensure the control equipment is functioning while the associated equipment is in operation and to determine if any fugitive air emissions are being generated in such a manner as to cause a nuisance or to cross the property line. If such a condition develops, water or another wetting agent shall be applied to suppress the fugitive air emissions so as to comply with the applicable requirements of 401 KAR 63:010 as listed above.
- c. In addition, visual observations shall be made on a weekly basis to determine if fugitive dust is becoming airborne from storage piles and associated operations as a result of vehicular traffic or windy conditions. If such a condition develops, water or a chemical wetting agent shall be applied to these areas as specified in 401 KAR 63:010 as listed above.
- d. See Section F, <u>Monitoring, Recordkeeping, and Reporting Requirements</u>, Conditions 1, 2, and 3.

5. <u>Specific Recordkeeping Requirements:</u>

- a. The permittee shall maintain records of the coal received, in tonnages, monthly [401 KAR 52:020, Section 10].
- b. Records of weekly observations and support information as required in sub-Section 4.b., <u>Specific Monitoring Requirements</u>, shall be kept in accordance with the provisions of Section F, <u>Monitoring, Recordkeeping, and Reporting Requirements</u>, Condition 2 [401 KAR 52:020, Section 10].
- c. See Section F, <u>Monitoring, Recordkeeping, and Reporting Requirements</u>, Conditions 1 and 2.

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

6. Specific Reporting Requirements:

See Section F, <u>Monitoring, Recordkeeping, and Reporting Requirements</u>, Conditions 5, 6, 7, and 8.

7. <u>Specific Control Equipment Operating Conditions:</u>

- a. The air pollution control equipment (including but not limited to enclosures) shall be used to maintain compliance with applicable requirements, in accordance with manufacturer's specifications and standard operating practices [401 KAR 50:055].
- b. Records regarding the maintenance of the air pollution control equipment (including but not limited to enclosures) shall be maintained [401 KAR 52:020, Section 10].
- c. See Section E Control Equipment Conditions for further requirements.

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

Emission Unit 08

Emergency Generator Engine

Description:

| 4-stroke, Lean burn, Reciprocating | Engine |
|------------------------------------|---------------|
| Tier III Certified | |
| Manufacturer: | Cummins |
| Construction Commenced: | November 2009 |
| Power Output: | 470 hp |
| Primary Fuel: | Natural gas |

APPLICABLE REGULATIONS:

40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Reciprocating Internal Combustion Engines

40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. Although this regulation is applicable, there are no requirements [40 CFR 63.6590(b)(1)(i)].

1. **Operating Limitations:**

- a. The permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel [40 CFR 60.4207(b)].
- b. The engine may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of the engine is limited to one-hundred (100) hours per year. There is no limit on the use of the engine in emergency situations. Anyone 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 owner or operator maintains records indicating that Federal, State or local standards require maintenance and testing of the engine beyond one-hundred (100) hours per year. Any operation other than emergency operation and maintenance testing as permitted in this section is prohibited [40 CFR 60.4211(f)].
- c. The permittee shall install a non-resettable hour meter prior to startup of the engine [40 CFR 60.4209(a)].

2. <u>Emission Limitations</u>:

a. The permittee shall comply with the emission standards for new nonroad CI engines in 40 CFR 60.4202, for all pollutants [40 CFR 60.4205(b)].

Compliance Demonstration Method:

In 2009 the permittee purchased an engine certified to the emission standards in 40 CFR 60.4205(b) for the same model year and maximum engine power. The engine was installed and configured according to manufacturer's specifications [40 CFR 60.4211(c)].

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

b. The permittee shall operate and maintain the engine and any control devices according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer. In addition, the permittee may only change those settings that are permitted by the manufacturer. The permittee shall also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply [40 CFR 60.4211(a)].

3. <u>Testing Requirements:</u>

Testing shall be conducted at such times as may be requested by the cabinet in accordance with 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 4.

4. Specific Monitoring Requirements:

The permittee shall monitor hours of operation and the fuel used, in gallons, on a monthly basis [401 KAR 52:020, Section 10].

5. <u>Specific Recordkeeping Requirements:</u>

The permittee shall maintain records of the hours of operation and the fuel used, in gallons, on a monthly basis [401 KAR 52:020, Section 10].

6. <u>Specific Reporting Requirements:</u>

See Section F, Monitoring, Recordkeeping, and Reporting 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 must 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.

| | Description | Generally Applicable Regulation |
|----|--|---------------------------------|
| 1. | Various lubricating oil tanks, each 7000 gallons or less | in size N/A |
| 2. | Portable kerosene heaters < 2 MMBtu/hr | N/A |
| 3. | One (1) 500 gallon unleaded gasoline tank | N/A |
| 4. | One (1) 300 gallon kerosene tank | N/A |
| 5. | One (1) 300 gallon diesel tank | N/A |
| 6. | One (1) 2000 gallon diesel tank | N/A |
| 7. | One (1) 600 gallon diesel tank | N/A |

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 26; 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. Particulate matter, sulfur dioxide, and visible 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.

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 (CONTINUED)

- 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 (5) 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

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

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].

- 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 shut down, 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 owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within thirty (30) days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [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].
- 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:
 - 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.

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

- e. For an emissions unit that was still under construction or which has not commenced operation at the end of the twelve (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 | U.S. EPA Region 4 |
|---------------------------|------------------------|
| Owensboro Regional Office | Air Enforcement Branch |
| 3032 Alvey Park Drive W., | Atlanta Federal Center |
| Suite 700 | 61 Forsyth St. SW |
| Owensboro, KY 42303-2191 | 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 thirty (30) days of the date the Kentucky Emissions Inventory System (KYEIS) emissions survey is mailed to the permittee.

SECTION G - GENERAL PROVISIONS

- 1. <u>General Compliance Requirements</u>
 - 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:
 - i. 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;
 - ii. The Cabinet or the United States Environmental Protection Agency (U.S. EPA) determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - iii. 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;
 - iv. 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.

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 ninety (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.].
- 1. 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].
- 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:
 - i. Applicable requirements that are included and specifically identified in this permit; and
 - ii. Non-applicable requirements expressly identified in this permit.
- 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 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, Start-Up, and Initial Compliance Demonstration Requirements

No construction is authorized by this permit.

- 5. <u>Testing Requirements</u>
 - 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 (45) 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 76510 (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.
- 7. <u>Emergency Provisions</u>
 - 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:
 - i. An emergency occurred and the permittee can identify the cause of the emergency;

- ii. The permitted facility was at the time being properly operated;
- iii. 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
- iv. 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.
- v. 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:
 - i. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - ii. 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.
 - iii. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - iv. 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
 - v. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - vi. 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 Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center P.O. Box 1515 Lanham-Seabrook, MD 20703-1515.

b. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None

SECTION J -ACID RAIN PERMIT

1. <u>Statutory and Regulatory Authority</u>

In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Kentucky Environmental and Public Protection Cabinet, Division for Air Quality issues this permit pursuant to 401 KAR 52:020, Title V Permits, 401 KAR 52:060, Acid Rain Permits, and 40 CFR Part 76.

2. <u>Permit Requirements:</u>

This Acid Rain Permit covers Acid Rain Units 1-5 (Boilers #1, #2, #3, #4 and #5). They are coal-fired base load electric generating units. The Acid Rain Permit Application and NO_x Compliance Plan received on December 27, 2011 are hereby incorporated into and made part of this permit and the permittee must comply with the standard requirements and special provisions set forth in the application [40 CFR 72.9(a)(2)].

3. Acid Rain Program Emission and Operating Limitations:

The applicable Acid Rain emission limitations for the permittee are set in 40 CFR 73.10, Table 2, 40 CFR 76.5, and 40 CFR 76.11 and they are tabulated in the tables below:

| Affected Unit: Boiler #1 | | | | | | | | |
|---|--|--|--|---|--|--|--|--|
| Year for SO ₂ Allowances 2012 2013 2014 2015 2016 | | | | | | | | |
| 40 CFR Part 73.10 2* 2* 2* 2* 2* | | | | | | | | |
| Ox Limits and Requirement | ts | | | | | | | |
| i) Pursuant to 40 CFR Part averaging plan for this un plan, determined in accord annual average alternative i) In addition, the actual BTU be less than or equal to the been operated, during the s under 40 CFR Part 76.5, 76 | it. This plan is lance with 40 (contemporaneo J-weighted ann e BTU-weighted same period of t | effective for c. CFR Part 75, th us emissions lin ual average NC d annual averag | alendar year 2 is unit's NO _x e nitation (ACEI D_x emissions rat e NO _x emission | 012 through 20 emissions shall : .) of 0.45 lb/MM te for the unit in ns rate for the sa | 16. Under this not exceed the <i>M</i> Btu. In the plan shal name unit had i | | | |
| ii) If the designated represen CFR 76.11(d)(1)(ii)(A)) is | s met for a yea | | an, then this u | init shall be de | | | | |

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.

* 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 SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

| Affected Unit: Boiler #2 | | | | | | | | |
|--|---|--|--|--|--|--|--|--|
| Year for SO ₂ Allowances 2012 2013 2014 2015 2016 | | | | | | | | |
| 40 CFR Part 73.10 | 40 CFR Part 73.10 16* 16* 16* 16* 16* | | | | | | | |
| NO _x Limits and Requiremen | nts | | | | | | | |
| (i) Pursuant to 40 CFR Part averaging plan for this un plan, determined in accor annual average alternative (ii) In addition, the actual BT be less than or equal to th been operated, during the under 40 CFR Part 76.5, 7 | nit. This plan is dance with 40 contemporaned U-weighted and e BTU-weighted same period of | s effective for CFR Part 75, t ous emissions li nual average Ne ed annual averag | calendar year 2 his unit's NO _x e mitation (ACEI O _x emissions rat ge NO _x emission | 012 through 20 emissions shall L) of 0.45 lb/MM te for the unit in ns rate for the s | 16. Under this not exceed the MBtu.n the plan shall ame unit had it | | | |
| (iii) If the designated representCFR 76.11(d)(1)(ii)(A)) is compliance for that year condition (i). | is met for a ye | ear under the p | lan, then this u | init shall be de | emed to be in | | | |
| In addition to the described requirements of 40 CFR Pa | - | - | | - • | | | | |

requirements covering excess emissions.

* 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 SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

| Affected Unit: Boiler #3 | | | | | | | | |
|--|--|----------------|----------------------------------|-------------------------------------|------------------------------------|--|--|--|
| Year for SO ₂ Allowances 2012 2013 2014 2015 2016 | | | | | | | | |
| 40 CFR Part 73.10 | 40 CFR Part 73.10 13* 13* 13* 13* 13* | | | | | | | |
| NO _x Limits and Requiremen | nts | | | | | | | |
| (i) Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NO_x emissions averaging plan for this unit. This plan is effective for calendar year 2012 through 2016. Under this plan, determined in accordance with 40 CFR Part 75, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.45 lb/MMBtu. (ii) In addition, the actual BTU-weighted annual average NO_x emissions rate for the unit in the plan shall be less than or equal to the BTU-weighted annual average NO_x emissions rate for the same unit had it been operated, during the same period of time, in compliance with the applicable emissions limitations under 40 CFR Part 76.5, 76.6, or 76.7. (iii) If the designated representative demonstrates that the requirement of condition (ii) (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in | | | | | | | | |
| compliance for that year condition (i). In addition to the described requirements of 40 CFR Pa | with its altern NO_x compliant | native contemp | oraneous annus unit shall com | al emissions lin ply with all of | nitation set in ther applicable | | | |

requirements covering excess emissions.

* 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 SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

| Affected Unit: Boiler #4 (Emission Unit 03, 976 MMBtu/hr) | | | | | | | |
|--|--------|--------|--------|--------|--------|--|--|
| Year for SO ₂ Allowances 2012 2013 2014 2015 2016 | | | | | | | |
| 40 CFR Part 73.10 | 2,830* | 2,830* | 2,830* | 2,830* | 2,830* | | |
| NO _x Limits and Requirements | | | | | | | |
| (i) Pursuant to 40 CFR Part 76, the Kentucky Division for Air Ouality approves the NO _x emissions | | | | | | | |

(i) Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NO_x emissions averaging plan for this unit. This plan is effective for calendar year 2012 through 2016. Under this plan, determined in accordance with 40 CFR Part 75, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.45 lb/MMBtu.

- (ii) In addition, the actual BTU-weighted annual average NO_x emissions rate for the unit in the plan shall be less than or equal to the BTU-weighted annual average NO_x emissions rate for the same unit had it been operated, during the same period of time, in compliance with the applicable emissions limitations under 40 CFR Part 76.5, 76.6, or 76.7.
- (iii) If the designated representative demonstrates that the requirement of condition (ii) (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emissions limitation set in condition (i).

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.

* 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).

| Affected Unit: Boiler #5 (Emission Unit 04, 1,260 MMBtu/hr) | | | | | | | |
|--|--|--|--|--|--------|--|--|
| Year for SO ₂ Allowances 2012 2013 2014 2015 2016 | | | | | | | |
| 40 CFR Part 73.10 3,377* 3,377* 3,377* 3,377* | | | | | 3,377* | | |
| NO _x Limits and Requirements | | | | | | | |

(i) Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NO_x emissions averaging plan for this unit. This plan is effective for calendar year 2012 through 2016. Under this plan, determined in accordance with 40 CFR Part 75, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.45 lb/MMBtu.

- (ii) In addition, the actual BTU-weighted annual average NO_x emissions rate for the unit in the plan shall be less than or equal to the BTU-weighted annual average NO_x emissions rate for the same unit had it been operated, during the same period of time, in compliance with the applicable emissions limitations under 40 CFR Part 76.5, 76.6, or 76.7.
- (iii) If the designated representative demonstrates that the requirement of condition (ii) (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emissions limitation set in condition (i).

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.

* 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).

4. Compliance Plan:

- a. The permittee shall operate in compliance with the requirements contained in the Acid Rain application and incorporated into this permit [40 CFR 72.9].
- b. The Division approves the NO_X Average Plan submitted for these units for the NO_x Emissions Compliance Plan, effective for the duration of this permit. Under this plan, a unit's NO_x emissions shall not exceed the applicable annual average alternative contemporaneous emissions limitation (ACEL) listed in Subsection 3(a). [40 CFR 76]
 - i. The actual Btu-weighted annual average NO_X emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_x emission rate for the same units had they been operated, during the same period of time, in compliance with the individual applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7 and listed in Subsection 3(a).

- ii. For each unit, if the designated representative demonstrates that the requirement of Subsection 4(b)(1) is met for the plan year, then the unit shall be deemed to be in compliance for the year with its ACEL and associated heat input limit in Subsection 3.
- iii. If the designated representative cannot make the demonstration in Subsection 4(b)(1), according to 40 CFR 76.11(d)(1)(ii), for the plan year and if a unit fails to meet the annual average ACEL or has a heat input greater than the applicable value listed in Subsection 3, then excess emissions of NO_x have occurred during the year for that unit.
- iv. As an alternative means of compliance demonstration, this emission unit shall not cause the system weighted average to exceed the applicable emission rate in accordance with 40 CFR 76.11(d)(B)(ii).

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 five (5) electrical generating units was submitted to the Division and received on October 22, 2007. 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.

The Affected source is five (5) pulverized coal-fired steam generators (Emission Units 01-05). The affected units each have a nameplate capacity to generate greater than 25 megawatts of electricity, which is offered for sale. The units use coal as 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.

The TR subject units, and the unit-specific monitoring provisions, at this source are identified in the following table. This units are subject to the requirements for the TR NO_x Annual Trading Program, TR NO_x Ozone Season Trading Program, and TR SO_2 Group 1 Trading Program.

Unit ID 03 and 04,

Unit 03 is a pulverized coal-fired, dry bottom, wall-fired indirect heat exchanger, which was constructed prior to 1954. This unit has two control devices: ESP, constructed 1973 and Low-NO_x burners, constructed 2002

Unit 04 is a pulverized coal-fired, dry bottom, wall-fired indirect heat exchanger, which was constructed prior to 1959. This unit has two control devices: ESP, constructed 1975 and Low-NO_x burners, constructed 1995

| Parameter | Continuous emission | Excepted monitoring | Excepted monitoring | Low Mass Emissions excepted | EPA-approved alternative monitoring |
|-----------------|---|--|---|--|---|
| | 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) | system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D | system requirements for gas- and oil-fired peaking units pursuant to 40 CFR part 75, appendix E | monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19 | 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 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 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, 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 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 assurance level such NO_X emissions exceeds the common designated representative's assurance level for the assurance is assurance with 40 CFR 97.425(b), of multiplying— (A) The quotient of the amount by which the common designated representative's assurance level for such NO_X emissions exceeds the common designated representative's assurance level for such NO_X emissions exceeds the common designated representative's assurance for the assurance account established for the amount by which the common designated representative's assurance level for the assurance exceeds the common designated representative's assurance for such NO_X emissions exceeds the common designated representative's assurance level for the assurance evel for the assurance for the product (rounded to the nearest whole number), as determined by the for the product (rounded to the nearest whole number) as determined by the for the amount by which the common designated representati

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 AAAAA 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 AAAAA 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.
 - 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 shall 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 shall 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 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.

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.

- 1) 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).
- 2) 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.

- 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 BBBBB 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 exceed the state during a control period exceeds the 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 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.
 - 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 shall 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 shall 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 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 $\ensuremath{\text{NO}_{X}}$ Ozone Season units at the source.

 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.

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.
 - 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 commondesignated 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 SO_2 emissions from all TR SO_2 Group 1 units at TR SO_2 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.
- 3) Compliance periods.
 - 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 shall 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 shall 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 SO_2 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).

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.