

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: Kentucky Utilities Company
Mailing Address: P.O. Box 32010, Louisville, KY 40232

Source Name: Kentucky Utilities Company - E.W. Brown
Generating Station
Mailing Address: 815 Dix Dam Road, Harrodsburg, KY 40330

Source Location: 815 Dix Dam Road

Permit: V-17-030 R1
Agency Interest: 3148
Activity: APE20200004
Review Type: Title V, Operating
Source ID: 21-167-00001

Regional Office: Frankfort Regional Office
300 Sower Boulevard, 1st Floor
Frankfort, KY 40601
(502) 564-3358

County: Mercer

Application
Complete Date: December 10, 2015
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Rick Shewekah

For Melissa Duff, Director
Division for Air Quality

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Permit	Permit Type	Activity#	Complete Date	Issuance Date	Summary of Action
V-17-030	Renewal	APE20150005	12/10/2015	6/8/2019	Permit Renewal
	Minor Revision	APE20190003	2/7/2019		Add EUs 55-57
	Minor Revision	APE20190005	3/18/2019		Removed EUs 01 & 02 and supporting equipment
V-17 030 R1	Minor Revision	APE20200004	3/11/2021	7/16/2021	Modified descriptions for EUs 23-28

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SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Energy and Environment Cabinet (Cabinet) hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit was 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 Cabinet or any other federal, state, or local agency.

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

Emission Unit 3

Indirect Heat Exchanger

Emission Unit	Description	Construction Commenced	Maximum Continuous Rating	Fuel	Controls
3	Pulverized coal- dry bottom-tangentially-fired indirect heat exchanger	July 19, 1971	5,300 MMBtu/hr	Coal, No. 2 Fuel Oil for startup and stabilization	Pulse Jet Fabric Filter (installed 2015) Low NO _x burners (installed 1992) Wet FGD (installed 2010), SCR (installed 2012) Dry sorbent injection for sulfuric acid mist control (installed 2013) Dry sorbent injection system using powdered activated carbon (installed 2015) Liquid additives for mercury control (installed 2015)

APPLICABLE REGULATIONS:

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);

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);

401 KAR 61:015, *Existing indirect heat exchangers*;

401 KAR 63:002, Section 2(4)(yyyyy), implementing **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*.

40 CFR 97, Subpart AAAAA, *CSAPR NO_x Annual Trading Program*

40 CFR 97, Subpart CCCCC, *CSAPR SO₂ Group 1 Trading Program*

40 CFR 97, Subpart GGGGG, *CSAPR NO_x Ozone Season Group 3 Trading Program*

ADDITIONAL REQUIREMENTS:

Consent Decree filed on March 17, 2009 in U.S. District Court for the Eastern District of Kentucky, Central Division, Lexington, *United States of America v. Kentucky Utilities Company*, Civil Action No. 5:07-CV-0075-KSF (“Consent Decree”).

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

1. Operating Limitations:

- a. The total heat input to the emission unit shall be no greater than 5,300 MMBtu/hr. This is a permanent federally-enforceable limit [Consent Decree, Paragraph 92].

Compliance Demonstration:

To demonstrate compliance with this requirement the permittee shall calculate the hourly heat input rate using the hourly mass coal burned rate and weekly composite fuel sampling analysis data collected.

- b. By no later than December 31, 2012, the permittee shall install an SCR for the emission unit [Consent Decree, Paragraph 5].
- c. By no later than December 31, 2010, the permittee shall install an FGD on the emission unit [Consent Decree, Paragraph 19].
- d. The permittee shall conduct periodic performance tune-ups of the EGUs, as specified in 40 CFR 63.10021(e)(1) through (9). For the first tune-up, the burner inspection may be performed any time prior to the tune-up or may be delayed until the next scheduled EGU outage provided the requirements of 40 CFR 63.10005 are met. 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. If the EGU is offline when a deadline to perform the tune-up passes, the tune-up work practice requirements shall be performed within 30 days after the re-start of the affected unit. [40 CFR 63.9991(a)(1) referencing Item 1. Of Table 3 to Subpart UUUUU of Part 63, 40 CFR 63.10006(i), and 40 CFR 63.10021(e)]
 - i. As applicable, 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: [40 CFR 63.10021(e)(1)]
 1. Burner or combustion control component parts needing replacement that affect the ability to optimize NO_x and CO shall be installed within 3 calendar months after the burner inspection [40 CFR 63.10021(e)(1)(i)].
 2. Burner or combustion control component parts that do not affect the ability to optimize NO_x and CO may be installed on a schedule determined by the operator [40 CFR 63.10021(e)(1)(ii)].
 - ii. As applicable, inspect the flame pattern and make any adjustments to the burner or combustion controls necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available, or in accordance with best combustion engineering practice for that burner type [40 CFR 63.10021(e)(2)].

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

- iii. As applicable, observe the damper operations as a function of mill and/or cyclone loading, cyclone and pulverizer coal feeder loadings, or other pulverizer and coal mill performance parameters, making adjustments and effecting repair to dampers, controls, mills, pulverizers, cyclones, and sensors [40 CFR 63.10021(e)(3)].
- iv. As applicable, evaluate windbox pressures and air proportions, making adjustments and effecting repair to dampers, actuators, controls, and sensors [40 CFR 63.10021(e)(4)].
- v. 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 O₂ 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. [40 CFR 63.10021(e)(5)]
- vi. 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 efficiency software, control systems calibrations, and adjusting combustion zone temperature profiles. [40 CFR 63.10021(e)(6)]
- vii. 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. EGUs 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. [40 CFR 63.10021(e)(7)]
- viii. Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in 40 CFR 63.10021(e)(1) through (e)(9) including: [40 CFR 63.10021(e)(8)]
 1. 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 [40 CFR 63.10021(e)(8)(i)].
 2. A description of any corrective actions taken as a part of the combustion adjustment [40 CFR 63.10021(e)(8)(ii)].

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

3. The type(s) and amount(s) or 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 [40 CFR 63.10021(e)(8)(iii)].
- ix. The permittee shall report each instance in which an applicable emissions limit or operating limit in 40 CFR 63, Subpart UUUUU, Tables 1 through 4 were not met or the permittee failed to conduct a required tune-up. These instances are deviations from the requirements of 40 CFR 63, Subpart UUUUU. These deviations shall be reported according to 40 CFR 63.10031. [40 CFR 63.10021(e)(9)]

Compliance Demonstration:

Compliance shall be demonstrated according to 4. **Specific Monitoring Requirements(l) and (m)** and 6. **Specific Reporting Requirements(e)(i)(4)**.

- e. The permittee shall be in compliance with the emission limits and operating limits in 40 CFR 63, Subpart UUUUU. These limits apply at all times except during periods of startup and shutdown; however, for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs, the permittee shall meet the work practice requirements, items 3 and 4, in Table 3 to 40 CFR 63, Subpart UUUUU during periods of startup or shutdown. [40 CFR 63.10000(a)]
- f. During startup:
 - i. The permittee has the option of complying using either of the following work practice standards:
 1. If complying using paragraph (1) of the definition of “startup” in 40 CFR 63.10042, the permittee shall operate all continuous monitoring systems (CMS) during startup. Startup means either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends with any 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). For startup of a unit, the permittee shall use clean fuels as defined in 40 CFR 63.10042 for ignition. Once the unit converts to firing coal, residual oil, or solid oil-derived fuel, the permittee shall engage all of the applicable control technologies except dry scrubber and SCR. The permittee shall start dry scrubber and SCR systems, if present, 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 definitions of startup and shutdown in 40 CFR 63, Subpart UUUUU. The permittee shall keep records during startup periods. The permittee shall provide reports concerning activities and startup periods, as specified in 40 CFR 63.10011(g) and 63.10021(h) and (i).

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2. If complying using paragraph (2) of the definition of “startup” in 40 CFR 63.10042, the permittee shall operate all CMS during startup. The permittee shall also collect appropriate data, and shall calculate the pollutant emission rate for each hour of startup. For startup of an EGU, the permittee shall use one or a combination of the clean fuels defined in 40 CFR 63.10042 to the maximum extent possible, taking into account considerations such as boiler or control device integrity, throughout the startup period. The permittee shall have sufficient clean fuel capacity to engage and operate the PM control device within one hour of adding coal, residual oil, or solid oil-derived fuel to the unit. The permittee shall meet the startup period work practice requirements as identified in 40 CFR 63.10020(e). Once the unit starts firing coal, residual oil, or solid oil-derived fuel, the permittee shall vent emissions to the main stack(s). The permittee shall comply with the applicable emission limits beginning with the hour after startup ends. The permittee shall engage and operate particulate matter control(s) within 1 hour of first firing coal, residual oil, or solid oil-derived fuel. The permittee shall start all other applicable control devices as expeditiously as possible, considering safety and manufacturer/supplier recommendations, but, in any case, 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 that require operation of the control devices.
 - ii. If the permittee chooses to use just one set of sorbent traps to demonstrate compliance with the applicable Hg emission limit, the permittee shall comply with the limit at all times; otherwise, the permittee shall comply with the applicable emission limit at all times except for startup and shutdown periods.
 - iii. The permittee shall collect monitoring data during startup periods, as specified in 40 CFR 63.10020(a) and (e). The permittee shall keep records during startup periods, as provided in 40 CFR 63.10031 and 63.10021(h). The permittee shall provide reports concerning activities and startup periods, as specified in 40 CFR 63.10011(g), 63.10021(i), and 63.10031.
[40 CFR 63.9991(a)(1) referencing Item 3. of Table 3 to Subpart UUUUU of Part 63]

Compliance Demonstration:

Compliance shall be demonstrated according to **4. Specific Monitoring Requirements(l) and (m)** and **5. Specific Recordkeeping Requirements(n)**.

- g. During shutdown: The permittee shall operate all CMS during shutdown (as defined in 40 CFR 63.10042). The permittee shall collect appropriate data, and shall calculate the pollutant emission rate for each hour of shutdown for those pollutants for which a CMS is used.

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

- i. While firing coal, residual oil, or solid oil-derived fuel during shutdown, the permittee shall vent emissions to the main stack(s) and operate all applicable control devices and continue to operate those control devices after the cessation of coal, residual oil, or solid oil-derived fuel being fed into the EGU and for as long as possible thereafter considering operational and safety concerns. In any case, the permittee shall operate controls 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.
- ii. If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel shall be one or a combination of the clean fuels defined in 40 CFR 63.10042 and shall be used to the maximum extent possible, taking into account considerations such as not compromising boiler or control device integrity.
- iii. The permittee shall comply with all applicable emission limits at all times except during startup periods and shutdown periods at which time the permittee shall meet this work practice. The permittee shall collect monitoring data during shutdown periods, as specified in 40 CFR 63.10020(a). The permittee shall keep records during shutdown periods, as provided in 40 CFR 63.10032 and 63.10021(h). Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown. The permittee shall provide reports concerning activities and shutdown periods, as specified in 40 CFR 63.10011(g), 63.10021(i), and 63.10031.

[40 CFR 63.9991(a)(1) referencing Item 4. of Table 3 to Subpart UUUUU of Part 63]

Compliance Demonstration:

Compliance shall be demonstrated according to 4. **Specific Monitoring Requirements(l) and (m)** and 5. **Specific Recordkeeping Requirements(n)**

- h. At all times, operate and maintain the 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. 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. Emission Limitations:

- a. Emissions shall not exceed 40 percent opacity except:
 - i. A maximum of 60 percent opacity shall be permissible for not more than 1 six-minute period in any sixty 60 consecutive minutes;
 - ii. 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. [401 KAR 61:015, Section 4(3)]

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

Compliance Demonstration:

To demonstrate compliance with this requirement the permittee shall use the performance tests required by **3. Testing Requirements(a)**.

- b. Particulate matter (PM) emissions shall not exceed 0.128 lb/MMBtu based on a three-hour average [401 KAR 61:015, Section 4(1) and Section 4(4)]

Compliance Demonstration:

Compliance with the limit in **2. Emission Limitations(c)** shall constitute compliance with this limit.

- c. The permittee shall continuously operate the PJFF for the emission unit to achieve a PM emission rate no greater than 0.030 lb/MMBtu. This is a permanent federally-enforceable limit. [Consent Decree, Paragraph 30A]

Compliance Demonstration:

Compliance with this requirement shall be demonstrated by an annual stack test in accordance with **3. Testing Requirements(b)**. This is a permanent federally-enforceable limit. [Consent Decree, Paragraph 30A]

- d. Sulfur dioxide (SO₂) emissions from the emission unit shall not exceed 5.15 lb/MMBtu based on a 24-hour average [401 KAR 53:010 and 401 KAR 61:015, Section 5(1)].

Compliance Demonstration:

To demonstrate compliance with this requirement the permittee shall use a SO₂ CEMS. Compliance with the 5.15 lb/MMBtu limit, based on a 24-hour average, assures compliance with the SO₂ limit in 401 KAR 61:015.

- e. Annually, on a calendar year basis, SO₂ emissions from the emission unit shall not exceed 2,300 tons per calendar year. This is a permanent federally-enforceable limit. [Consent Decree, Paragraph 22]

Compliance Demonstration:

To demonstrate compliance with this requirement the permittee shall use a SO₂ CEMS in accordance with the reference methods in 40 CFR Part 75. The permittee shall not use SO₂ allowances to comply with this limit [Consent Decree, Paragraph 24].

- f. The permittee shall commence continuous operation of the FGD so as to achieve and thereafter maintain a **30-day Rolling Average Emission Rate** for SO₂ of no greater than 0.100 lb/MMBtu or a **30-day Rolling Average SO₂ Removal Efficiency** of not lower than 97%. This is a permanent federally-enforceable limit. [Consent Decree, Paragraph 20]

Compliance Demonstration:

To demonstrate compliance with this requirement the permittee shall use a SO₂ CEMS, in accordance with the reference methods in 40 CFR Part 75, upstream and downstream of the wet flue gas desulfurization system. The permittee may not use SO₂ allowances to comply with this limit [Consent Decree, Paragraph 24].

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- g. Emissions of nitrogen oxides from the emission unit shall not exceed 0.070 lb/MMBtu based on a **30-day Rolling Average Emission Rate**. If the dispatch of the emission unit requires operation of the unit at a load level that results in flue gas temperature so low that it becomes technically infeasible to continuously operate the SCR, despite best efforts by the permittee to do so, the nitrogen oxide emission rate shall not exceed 0.080 lb/MMBtu on a **30-day Rolling Average Emission Rate**. [Consent Decree, Paragraphs 6 and 7]

Compliance Demonstration:

To demonstrate compliance with this requirement the permittee shall use a NO_x CEMS in accordance with the reference methods in 40 CFR Part 75. The permittee shall use SCR operational data, as required by **5. Specific Recordkeeping Requirements(f)**, to demonstrate the use of the thirty (30)-day rolling average 0.080 lb/MMBtu limit. The permittee shall not use NO_x allowances to comply with this limit.

- h. Emissions of sulfuric acid mist (SAM) from Emission Unit 3 shall not exceed 473.1 tons per year based on a twelve (12)-month rolling total. This is a voluntary federally-enforceable limit to preclude 401 KAR 51:017.

Compliance Demonstration:

To demonstrate compliance with this limit the permittee shall determine monthly SAM emissions from Emission Unit 3 and add the total to the previous 11-month SAM emissions total. The permittee shall maintain a log onsite of the 12-month rolling total SAM emissions. Monthly SAM emissions shall be determined by:

- i. SAM emissions from fuel oil during startup:

$$SAM_{Fuel\ Oil} \left(\frac{\text{tons}}{\text{month}} \right) = \frac{Fuel\ Oil\ Usage \left(\frac{10^3\ \text{gal}}{\text{month}} \right) \times EF \left(\frac{\text{lb}\ SO_3}{10^3\ \text{gal}} \right)}{2000 \left(\frac{\text{lb}}{\text{ton}} \right)} \times 1.225 \left(\frac{\text{lb}\ H_2SO_4}{\text{lb}\ SO_3} \right)$$

Where, EF = the most recent AP-42 emission factor, currently 5.7S lb/10³ gallons, where S is the monthly average weight percent of sulfur in the fuel oil.

- ii. SAM emissions from burning coal:

$$SAM_{FGD} = \frac{Heat\ Input_{FGD} \left(\frac{\text{MMBtu}}{\text{month}} \right) \times EF_{FGD} \left(\frac{\text{lb}\ SO_3}{\text{MMBtu}} \right)}{2000 \left(\frac{\text{lb}}{\text{ton}} \right)} \times 1.225 \left(\frac{\text{lb}\ H_2SO_4}{\text{lb}\ SO_3} \right)$$

Where, EF_{FGD} = the most recent SAM stack test emission factor in lb/MMBtu and $Heat\ Input_{FGD}$ is the total monthly heat input from Emission Units 3 while exiting through the FGD stack. The stack test emission factor will be established according to the testing required by **3. Testing Requirements(c)**.

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- i. Emissions from Emission Unit 3 shall not exceed the limitations in the table below [40 CFR 63.9991(a)(1) referencing Item 1. of Table 2 to Subpart UUUUU of Part 63]. If the permittee elects to comply with these emission limitations using emissions averaging, emissions averaging shall be conducted according to 40 CFR 63.10009 and 40 CFR 63.10022.

Pollutant	Emission Limit	Compliance Demonstration
PM	0.030 lb/MMBtu OR 0.30 lb/MWh	Quarterly stack testing OR PM CEMS. [Table 5., Item 1; and Table 7. also 40 CFR 63.10005.]
OR		
Total non-Hg HAP Metals	0.000050 lb/MMBtu OR 0.50 lb/GWh	Quarterly stack testing [Table 5., Item 2; and Table 7. also 40 CFR 63.10005.]
OR		
All of these: Antimony	0.80 lb/TBtu OR 0.0080 lb/GWh	Quarterly stack testing for each [Table 5., Item 2; and Table 7. also 40 CFR 63.10005.]
Arsenic	1.1 lb/TBtu OR 0.020 lb/GWh	
Beryllium	0.20 lb/TBtu OR 0.0020 lb/GWh	
Cadmium	0.30 lb/TBtu OR 0.0030 lb/GWh	
Chromium	2.8 lb/TBtu OR 0.030 lb/GWh	
Cobalt	0.80 lb/TBtu OR 0.0080 lb/GWh	
Lead	1.2 lb/TBtu OR 0.020 lb/GWh	
Manganese	4.0 lb/TBtu OR 0.050 lb/GWh	
Nickel	3.5 lb/TBtu OR 0.040 lb/GWh	
Selenium	5.0 lb/TBtu	

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Pollutant	Emission Limit	Compliance Demonstration
	OR 0.060 lb/GWh	
AND		
HCl	0.0020 lb/MMBtu OR 0.020 lb/MWh	Quarterly stack testing OR HCl/HF CEMS. [Table 5., Item 3; and Table 7. also 40 CFR 63.10005.]
OR		
SO ₂	0.20 lb/MMBtu OR 1.5 lb/MWh	SO ₂ CEMS. [Table 5., Item 3; and Table 7.]
AND		
Hg	1.2 lb/TBtu, OR 0.013 lb/GWh	Hg CEMS. [Table 5., Item 4; and Table 7. also 40 CFR 63.10005.] OR Sorbent Trap Monitoring. [Table 5., Item 4; and Table 7. also 40 CFR 63.10005.]

3. Testing Requirements:

- a. The permittee shall determine the opacity of emissions from the stack by U.S. EPA Reference Method 9 at least once every 14 operating days, or more frequently if requested by the Division or required by this permit [401 KAR 50:055].
- b. The permittee shall conduct a stack test for PM on the stack servicing this unit at least once each calendar year, with each stack test conducted at least 6 months apart. The reference methods and procedures for determining compliance with the PM emission rates shall be those specified in 40 CFR 60, Appendix A, Method 5 (with or without the Method 5 adjustment specified in 40 CFR 63, Subpart UUUUU), 5B, or 17, or an alternative method requested by the permittee, and approved for use by EPA. Each test shall consist of three separate runs performed under representative operating conditions and not during periods of startup, shutdown, or malfunction. The sampling time for each run shall be at least 120 minutes and volume of each run shall be 1.70 dry standard cubic meters (sixty (60) dry standard cubic feet). The permittee shall calculate the PM emission rates from the stack test results in accordance with 40 CFR 60.8(f). This is a permanent federally-enforceable testing requirement. [Consent Decree, Paragraph 32 and 401 KAR 50:055]
- c. The permittee shall conduct annual performance tests (at least 180 days apart), operating under the conditions established for 4. **Specific Monitoring Requirements(k)**, to determine the SAM emission factor. [401 KAR 50:055]

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

- d. During the initial SAM performance testing the permittee established the control device's operating parameters that are used as an indicator of SAM emissions, according to **4. Specific Monitoring Requirements(k)**. There may be short-term exceedances during the testing period required to establish or reestablish the operating parameter indicator ranges. These exceedances will not be considered noncompliance periods since the testing is required to establish a permit requirement. The Test Protocol form required by Section G(5)(a) shall detail the method and monitoring to be used to establish the correlation between the control device operating parameters and SAM emissions. The test report shall detail the results of the correlation testing, including the operating parameter indicator ranges to be used. [401 KAR 50:055 and 40 CFR 64.6(c)]
- e. If the emission unit reports PM exceedances, or SAM excursions for 5% or more of its operating hours during any calendar quarter, then the permittee shall conduct performance testing for PM or SAM emissions, as applicable, during the following calendar quarter while operating under representative conditions. PM emissions shall be determined according to 40 CFR 60, Appendix A, Method 5 (with or without the Method 5 adjustment specified in 40 CFR 63, Subpart UUUUU), 5B, or 17, or an alternative method approved by EPA. The SAM emission factor shall be re-established according to the method in **3. Testing Requirements(d)**. This requirement may be waived if the permittee can demonstrate to the satisfaction of the Division that the cause of the exceedance has been identified and corrected. [40 CFR 64.6]
- f. For EGUs using PM CPMS to monitor continuous performance with an applicable emission limit as provided for under 40 CFR 63.10000(c), the permittee shall conduct all applicable performance tests according to Table 5 to 40 CFR 63, Subpart UUUUU and 40 CFR 63.10007 at least every year [40 CFR 63.10006(a)].
- g. For affected units meeting the LEE requirements of 40 CFR 63.10005(h), the permittee shall repeat the performance test once every 3 years (once every year for Hg) according to Table 5 to 40 CFR 63, Subpart UUUUU and 40 CFR 63.10007. Should subsequent emissions testing results show the unit does not meet the LEE eligibility requirements, LEE status is lost. If this should occur: [40 CFR 63.10006(b)]
 - i. For all pollutant emission limits except for Hg, the permittee shall conduct emissions testing quarterly, except as otherwise provided in 40 CFR 63.10021(d)(1) [40 CFR 63.10006(b)(1)].
 - ii. For Hg, the permittee shall install, certify, maintain, and operate a Hg CEMS or a sorbent trap monitoring system in accordance with 40 CFR 63, Subpart 63, Appendix A, within 6 calendar months of losing LEE eligibility. Until the Hg CEMS or sorbent trap monitoring system is installed, certified, and operating, the permittee shall conduct Hg emissions testing quarterly, except as otherwise provided in 40 CFR 63.10021(d)(1). To reestablish LEE status, 3 calendar years of testing and CEMS or sorbent trap monitoring system data that satisfy the LEE emissions criteria is required. [40 CFR 63.10006(b)(2)]

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

- h. Except where 40 CFR 63.10006(a) or (b) apply, or where the permittee installs, certifies, and operates a PM CEMS to demonstrate compliance with a filterable PM emissions limit, the permittee shall conduct all applicable periodic test for filterable PM, individual, or total HAP metals emission according to Table 5 to 40 CFR 63, Subpart UUUUU, 40 CFR 63.10007, and 40 CFR 63.10000(c), except as otherwise provided in 40 CFR 63.10021(d)(1) [40 CFR 63.10006(c)].
- i. Except where 40 CFR 63.10006(b) applies, EGUs that do not use either an HCl CEMS to monitor compliance with the HCl limit or an SO₂ CEMS to monitor compliance with the alternate equivalent SO₂ emission limit, the permittee shall conduct all applicable periodic HCl emissions tests according to Table 5 to 40 CFR 63, Subpart UUUUU and 40 CFR 63.10007 at least quarterly, except as otherwise provided in 40 CFR 63.10021(d)(1) [40 CFR 63.10006(d)].
- j. Time between performance tests performed for 40 CFR 63, Subpart UUUUU [40 CFR 63.10006(f)]
 - i. Notwithstanding the provisions of 40 CFR 63.10021(d)(1), and the requirements listed in 40 CFR 63.10006(g) and (h), and the requirements of 40 CFR 63.10006(f)(3), the permittee shall complete performance tests for the EGU as follows: [40 CFR 63.10006(f)(1)].
 - 1. At least 45 calendar days, measured from the test's end date, shall separate performance tests conducted every quarter [40 CFR 63.10006(f)(1)(i)];
 - 2. For annual testing: [40 CFR 63.10006(f)(1)(ii)]
 - A. At least 320 calendar days, measured from the test's end date, shall separate performance tests [40 CFR 63.10006(f)(1)(ii)(A)];
 - B. At least 320 calendar days, measured from the test's end date, shall separate annual sorbent trap mercury testing for 30-boiler operating day LEE tests [40 CFR 63.10006(f)(1)(ii)(B)];
 - C. At least 230 calendar days, measured from the test's end date, shall separate annual sorbent trap mercury testing for 90-boiler operating day LEE tests; and [[40 CFR 63.10006(f)(1)(ii)(C)]
 - 3. At least 1,050 calendar days, measured from the test's end date, shall separate performance tests conducted every 3 years [40 CFR 63.10006(f)(1)(iii)].
 - ii. For units demonstrating compliance through quarterly emission testing, the permittee shall conduct a performance test in the 4th quarter of a calendar year if the EGU has skipped performance tests in the first 3 quarters of the calendar year [40 CFR 63.10006(f)(2)].

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

iii. If the EGU misses a performance test deadline due to being inoperative and if 168 or more boiler operating hours occur in the next test period, the permittee shall complete an additional performance test in that period as follows: [40 CFR 63.10006(f)(3)]

1. At least 15 calendar days shall separate two performance tests conducted in the same quarter [40 CFR 63.10006(f)(3)(i)].
 2. At least 107 calendar days shall separate two performance tests conducted in the same calendar year [40 CFR 63.10006(f)(3)(ii)].
 3. At least 350 calendar days shall separate two performance tests conducted in the same 3 year period [40 CFR 63.10006(f)(3)(iii)].
- k. Performance tests conducted for 40 CFR 63, Subpart UUUUU shall be conducted according to 40 CFR 63.10007 and Table 5 to 40 CFR 63, Subpart UUUUU [40 CFR 63.10005(b) and 63.10006].

4. Specific Monitoring Requirements:

- a. Continuous emission monitoring systems (CEMS) shall be installed, calibrated, maintained, and operated for measuring PM emissions, SO₂ emissions, oxygen or carbon dioxide emissions, and NO_x emissions. The continuous emission monitoring systems shall comply with 401 KAR 61:005, Section 3 and the applicable Performance Specification in 40 CFR 60, Appendix B or 40 CFR 75, Appendix A. [401 KAR 61:005, Section 3 and 401 KAR 52:020, Section 10]
- b. The permittee shall sample and record the sulfur, ash, and heat content of the coal burned, as fired, on a daily basis. The daily grab samples shall be averaged to determine the weighted average value for each calendar week. Additionally, all sulfur data obtained in a calendar month shall be averaged to determine the weighted average sulfur content for each calendar month. [401 KAR 61:015, Section 6(3)]
- c. The permittee shall determine the sulfur content of fuel oil used during startup and determine a monthly average based on fuel supplier certification or a fuel contract [401 KAR 52:020, Section 10].
- d. The hourly rate of each fuel burned (coal and fuel oil), the average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily [401 KAR 61:015, Section 6(3)].
- e. The Division may provide a temporary exemption from the monitoring and reporting requirements of 401 KAR 61:005, Section 3, for a 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 practicable [401 KAR 61:005, Section 3(4)].

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

- f. To demonstrate compliance with the SO₂ emission limits, if any 24-hour average SO₂ value exceeds the standard (excluding periods of startup and shutdown), the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and make any necessary repairs or take corrective actions as soon as practicable [401 KAR 52:020, Section 10].
- g. The permittee shall monitor and record the date, time, and duration for each startup and shutdown event [401 KAR 52:020, Section 10].
- h. The permittee shall monitor the SCR inlet temperature and record the hourly average temperature [401 KAR 52:020, Section 10].
- i. The permittee shall monitor the wet FGD pump amps and pH and record the hourly averages [401 KAR 52:020, Section 10].
- j. To assure compliance with the PM emission limit for the emission unit, the permittee shall [40 CFR 64.6(c)]:
 - i. Install, calibrate, maintain and operate a PM CEMS according to Performance Specification 11 in Appendix B to 40 CFR 60;
 - ii. The PM CEMS data shall be continuously monitored and recorded to determine hourly average PM emissions.
- k. To assure compliance with the SAM emission limit, the permittee shall:
 - i. Install, calibrate, and operate a metering system on the sorbent injection system to monitor the sorbent injection rate (lb/hr). The metering system shall be selected to have an accuracy of approximately $\pm 10\%$ of the target operating range. Additionally, equipment shall be installed, calibrated, and operated as required by the sorbent injection system manufacturer, to monitor the parameters (e.g. unit load and FGD SO₂ inlet) that will be used to monitor the SAM control device operating parameters established by **3. Testing Requirements (d)**.
 - ii. Install, calibrate, and operate SO₂ CEMS, according to 40 CFR Part 75, at the inlet of the wet FGD and the outlet of the wet FGD stack to determine the average hourly SO₂ removal efficiency for the emission unit. The data shall be averaged to determine the average SO₂ removal efficiency for each operating hour of the day.
 - iii. Continuously, once every 15 minutes, monitor and record the sorbent injection rate (lb/hr). The data shall be averaged to determine the average hourly rate for each operating hour of the day.
 - iv. The indicator ranges shall be set during the performance test required by **3. Testing Requirements(d)**. An excursion shall be any hourly average that is outside the indicator range established during the performance test.

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

- v. For each excursion, the permittee shall initiate an investigation, take corrective action, and correct any revealed performance issues in the most expedient manner possible.
 - vi. The sorbent injection rate monitoring equipment shall be periodically calibrated and inspected, according to manufacturer recommendations, at least annually. Sorbent injection rate (lb/hr) at or above the indicator ranges set during the testing required by **3. Testing Requirements** (d) are an indicator of the SAM emission control levels. [40 CFR 64.6(c)]
 - l. The permittee shall comply with all applicable monitoring requirements of 40 CFR 63.10010, 40 CFR 63.10011, 40 CFR 63.10020, and 40 CFR 63.10021.
 - m. The permittee shall monitor and collect data according to 40 CFR 63.10020 and the site-specific monitoring plan required by 40 CFR 63.10000(d) [40 CFR 63.10020(a)].
 - i. 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)]
 - ii. The permittee may not use data recorded during EGU startup or shutdown in calculations used to report emissions, except as otherwise provided in 40 CFR 63.10000(c)(1)(vi)(B) and 63.10005(a)(2)(iii). In addition, data recorded during monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, or required monitoring system quality assurance or control activities may not be used in calculations used to report emissions or operating levels. The permittee shall use all of the quality-assured data collected during all other periods in assessing the operation of the control device and associated control system. [40 CFR 63.10020(c)]
 - iii. Except for periods of monitoring system malfunctions or monitoring system out-of-control 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 system requirements [40 CFR 63.10020(d)].
- 5. Specific Recordkeeping Requirements:**
- a. The permittee shall maintain records of the heat, sulfur and ash content of each fuel on a weekly basis and determine the average sulfur content of each fuel on a monthly basis [401 KAR 52:020, Section 10].

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- b. The permittee shall maintain records of the amount and rate each fuel is burned, the average electrical output, and the minimum and maximum hourly generation rate on a daily basis [401 KAR 52:020, Section 10].
- c. The permittee shall maintain records of the data collected by the continuous monitoring systems, including data necessary to convert monitoring data to the units of the applicable standard [401 KAR 52:020, Section 10 and 40 CFR 64.6(c)].
- d. The permittee shall maintain records of the results of all compliance tests [401 KAR 52:020, Section 10].
- e. For each startup and shutdown event, the permittee shall maintain records of the date, time, and duration of 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].
- f. The permittee shall maintain records of the SCR, wet FGD, and PJFF operating parameters required to be monitored by **4. Specific Monitoring Requirements(h)** and **(i)** and **7. Specific Control Equipment Requirements (b)**. [401 KAR 52:020, Section 10]
- g. The permittee shall maintain records regarding the maintenance of the wet FGD, SCR, and PJFF [401 KAR 52:020, Section 10 and 40 CFR 64.6(c)].
- h. The permittee shall maintain records of the causes and corrective actions taken associated with any exceedance or excursion identified in **4. Specific Monitoring Requirements(j)** and **(k)** [40 CFR 64.6(c)].
- i. If 5 percent or more of a unit's operating hours in a calendar quarter report PM exceedances or SAM excursions, as applicable, in accordance with the compliance assurance monitoring in **4. Specific Monitoring Requirements(j)** and **(k)**, then the permittee shall develop and maintain a quality improvement plan (QIP) according to 40 CFR 64.8 [40 CFR 64.6(c)].
- j. The permittee shall keep records according to 40 CFR 63.10032(a)(1) and (2). If required or electing to continuously monitor Hg and/or HCl and/or HF emissions, the permittee shall also keep the records required under 40 CFR 63, Subpart UUUUU, Appendix A and/or Appendix B. [40 CFR 63.10032(a)]
 - i. A copy of each notification and report submitted to comply with 40 CFR 63, Subpart UUUUU, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report submitted according to the requirements in 40 CFR 63.10(b)(2)(xiv) [40 CFR 63.10032(a)(1)].
 - ii. Records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in 40 CFR 63.10(b)(2)(viii) [40 CFR 63.10032(a)(2)].
- k. For each CEMS and CPMS used for 40 CFR 63, Subpart UUUUU, the permittee shall keep records according to 40 CFR 63.10032(b)(1) through (4) [40 CFR 63.10032(b)].

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

- i. Records described in 40 CFR 63.10(b)(2)(vi) through (xi) [40 CFR 63.10032(b)(1)].
 - ii. Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3) [40 CFR 63.10032(b)(2)].
 - iii. Request for alternatives to relative accuracy test for CEMS as required in 40 CFR 63.8(f)(6)(i) [40 CFR 63.10032(b)(3)].
 - iv. 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)(4)].
1. The permittee shall keep the records required in Table 7 to 40 CFR 63, Subpart UUUUU including records of all monitoring data and calculated averages for applicable PM CPMS operating limits to show continuous compliance with each emission limit and operating limit applicable to the unit [40 CFR 63.10032(c)].
- m. For each EGU subject to an emission limit, the permittee shall also keep the records in 40 CFR 63.10032(d)(1) through (3) [40 CFR 63.10032(d)].
 - i. Records of monthly fuel use by each EGU, including the type(s) of fuel and amount(s) used [40 CFR 63.10032(d)(1)].
 - ii. If non-hazardous secondary materials that have been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1) are combusted, the permittee shall keep a record which documents how the secondary material meets each of the legitimacy criteria. If a fuel that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR 241.3(b)(2) is combusted, 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)]
 - iii. For an EGU that qualifies as LEE under 40 CFR 63.10005(h), the permittee shall keep annual records that document that emissions in the previous stack test(s) continue to qualify the unit for LEE status for an applicable pollutant, and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the pollutant to increase within the past year [40 CFR 63.10032(d)(3)].
 - n. Regarding startup periods or shutdown periods: [40 CFR 63.10032(f)]
 - i. If relying on paragraph (1) of the definition of “startup” in 40 CFR 63.10042 for the EGU, the permittee shall keep records of the occurrence and duration of each startup or shutdown [40 CFR 63.10032(f)(1)].
 - ii. If relying on paragraph (2) of the definition of “startup” in 40 CFR 63.10042 for the EGU, the permittee shall keep records of: [40 CFR 63.10032(f)(2)]

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

1. The determination of the maximum possible clean fuel capacity for each EGU [40 CFR 63.10032(f)(2)(i)].
2. The determination of the maximum possible hourly clean fuel heat input and of the hourly clean fuel heat input for each EGU [40 CFR 63.10032(f)(2)(ii)].
3. The information required in 40 CFR 63.10020(e) [40 CFR 63.10032(f)(2)(iii)].
 - A. During each period of startup, the permittee shall record for each EGU [40 CFR 63.10020(e)(1)]:
 - I. The date and time that clean fuels being combusted for the purpose of startup begins [40 CFR 63.10020(e)(1)(i)];
 - II. The quantity and heat input of clean fuel for each hour of startup [40 CFR 63.10020(e)(1)(ii)];
 - III. The gross output for each hour of startup [40 CFR 63.10020(e)(1)(iii)];
 - IV. The date and time that non-clean fuel combustion begins; and [40 CFR 63.10020(e)(1)(iv)]
 - V. The date and time that clean fuels being combusted for the purpose of startup ends [40 CFR 63.10020(e)(1)(v)].
 - B. During each period of shutdown, the permittee shall record for each EGU [40 CFR 63.10020(e)(2)]:
 - I. The date and time that clean fuels being combusted for the purpose of shutdown begins [40 CFR 63.10020(e)(2)(i)];
 - II. The quantity and heat input of clean fuel for each hour of shutdown [40 CFR 63.10020(e)(2)(ii)];
 - III. The gross output for each hour of shutdown [40 CFR 63.10020(e)(2)(iii)];
 - IV. The date and time that non-clean fuel combustion ends; and [40 CFR 63.10020(e)(2)(iv)]
 - V. The date and time that clean fuels being combusted for the purpose of shutdown ends [40 CFR 63.10020(e)(2)(v)].
 - C. For PM or non-mercury HAP metals work practice monitoring during startup periods, the permittee shall monitor and collect data according to 40 CFR 63.10020(e)(3) and the site-specific monitoring plan required by 40 CFR 63.10010(l) [40 CFR 63.10020(e)(3)].

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- o. 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)].
- p. 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)].
- q. The permittee shall keep records of the type(s) and amount(s) of fuel used during each startup or shutdown [40 CFR 63.10032(i)].
- r. Records kept for 40 CFR 63, Subpart UUUUU shall be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). As specified in 40 CFR 63.10(b)(1), the permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee shall keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). Records can be kept off site for the remaining 3 years. [40 CFR 63.10033]

6. Specific Reporting Requirements:

- a. For each continuous monitoring system, as applicable, the permittee shall submit, in writing to the cabinet, for every calendar quarter, a written report of excess emissions including the nature and cause of the excess emission, if known, as follows [401 KAR 61:005, Section 3(15), 40 CFR 64.6(c)]. The PM Consent Decree data shall be reported in the Semi-Annual Reports [Consent Decree, Paragraph 36]:
 - i. The averaging period used for data reporting shall correspond to the averaging period specified in the emission test method used to determine compliance with an emission standard for the applicable pollutant and source category, and quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter;
 - ii. For PM measurements, the summary shall be based on 24-hour rolling averaging, and 6-hour rolling averaging times OR hourly rolling averages.
 - iii. For gaseous measurements, the summary shall consist of hourly averages expressed in the units of the applicable standard;
 - iv. The permittee shall submit any deviations from the sorbent injection rate (lb/hr) indicator ranges. This data or a negative declaration shall be reported semi-annually;
 - v. Report in the semi-annual reports deviations or a negative declaration of exceedances of the SO₂ emissions from Unit 3 that are above the 0.100 lb/MMBtu 30-day rolling average emission rate limit and below the 97% 30-day rolling average SO₂ removal efficiency limit;

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- vi. Except for zero and span checks, the date and time of each hourly period during which the continuous monitoring system was not operating, including proof of continuous monitoring system performance during system repairs and the nature of the repairs of adjustments;
- vii. If excess emissions have not occurred and the continuous monitoring systems have not been inoperative, repaired or adjusted, this information shall be included in the report; and
- viii. All data must be retained for 5 years, but the source shall maintain a file onsite for a minimum of 2 years from the date of collection of the data or submission to the cabinet of:
 1. All information reported in the quarterly summaries; and
 2. All other data collected by the continuous monitoring systems, including data necessary to convert monitoring data to the units of the applicable standard.
- b. The permittee shall submit in the semi-annual report the following information regarding the compliance assurance monitoring for SAM emissions in **4. Specific Monitoring Requirements(k)**:
 - i. Number of exceedances or excursions;
 - ii. Duration of each exceedance or excursion;
 - iii. Cause of each exceedance or excursion;
 - iv. Corrective actions taken on each exceedance or excursion;
 - v. Number of monitoring equipment downtime incidents;
 - vi. Cause of each monitoring equipment downtime incident; and
 - vii. Description of actions taken to implement a quality improvement plan (according to the method in 40 CFR 64.8); and upon completion of the quality improvement plan, documentation that the plan was completed and reduced the likelihood of similar excursions or exceedances. [40 CFR 64.9(a)]
- c. The permittee shall report exceedances that occur as a result of startup on a semi-annual basis. The report shall include the type of start-up and whether or not the duration of the startup exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of why the startup exceeded recommended or typical durations. [401 KAR 52:020, Section 10]
- d. The permittee shall report the SAM emissions 12-month rolling totals on a semi-annual basis according to **Section F – Monitoring, Recordkeeping, and Reporting Requirements** [401 KAR 52:020, Section 10].

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

- e. The permittee shall submit a compliance report which shall contain: [40 CFR 63.10031(a) referencing Item 1. of Table 8 to Subpart UUUUU of Part 63]
 - i. The compliance report shall contain the information required in 40 CFR 63.10031(c)(1) through (9).
 1. The information required by the summary report located in 40 CFR 63.10(e)(3)(vi) [40 CFR 63.10031(c)(1)].
 2. The total fuel use by each affected source subject to an emission limit, 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 permittee's basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure [40 CFR 63.10031(c)(2)].
 3. Indicate whether new types of fuel were burned during the reporting period. If new types of fuel were burned, the permittee shall include the date of the performance test where that fuel was in use. [40 CFR 63.10031(c)(3)]
 4. Include the date of the most recent tune-up for each EGU. The date of the tune-up is the date the tune-up provisions specified in 40 CFR 63.10021(e)(6) and (7) were completed. [40 CFR 63.10031(c)(4)]
 5. If relying on paragraph (2) of the definition of "startup" in 40 CFR 63.10042 for the EGU, for each instance of startup or shutdown the permittee shall: [40 CFR 63.10031(c)(5)]
 - A. Include the maximum clean fuel storage capacity and the maximum hourly heat input that can be provided for each clean fuel determined according to the requirements of 40 CFR 63.10032(f) [40 CFR 63.10031(c)(5)(i)].
 - B. Include the information required to be monitored, collected, or recorded according to the requirements of 40 CFR 63.10020(e) [40 CFR 63.10031(c)(5)(ii)].
 - C. If using CEMS to demonstrate compliance with numerical limits, include hourly average CEMS values and hourly average flow values during startup periods or shutdown periods. Use units of milligrams per cubic meter for PM CEMS values, micrograms per cubic meter for Hg CEMS values, and ppmv for HCl, HF, or SO₂ CEMS values. Use units of standard cubic meters per hour on a wet basis for flow values. [40 CFR 63.10031(c)(5)(iii)]
 - D. If using a separate sorbent trap measurement system for startup or shutdown reporting periods, include hourly average mercury concentration values in terms of micrograms per cubic meter [40 CFR 63.10031(c)(5)(iv)].

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

- E. If using a PM CPMS, include hourly average operating parameter values in terms of the operating limit, as well as the operating parameter to PM correlation equation [40 CFR 63.10031(c)(5)(v)].
6. Emergency bypass information annually from EGUs with LEE status [40 CFR 63.10031(c)(6)].
 7. A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during the test, if applicable. If stack tests are conducted once every 3 years to maintain LEE status, consistent with 40 CFR 63.10006(b), the date of each stack test conducted during the previous 3 years, a comparison of emission level achieved in each stack test conducted during the previous 3 years to the 50 percent emission limit threshold required in 40 CFR 63.10005(h)(1)(i), and a statement as to whether there have been any operational changes since the last stack test that could increase emissions. [40 CFR 63.10031(c)(7)]
 8. A certification [40 CFR 63.10031(c)(8)].
 9. If there was a deviation from any emission limit, work practice standard, or operating limit, the permittee shall also submit a brief description of the deviation, the duration of the deviation, emissions point identification, and the cause of the deviation [40 CFR 63.10031(c)(9)].
- ii. If there are no deviations from any emission limitation (emission limit and operating limit) applicable to the EGU and there are no deviations from the requirements for work practice standards in Table 3 to 40 CFR 63, Subpart UUUUU, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, and operating parameter monitoring systems, were out-of-control as specified in 40 CFR 63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period. [40 CFR 63.10031(a) referencing Item 1.b. of Table 8 to Subpart UUUUU of Part 63]
 - iii. If there is a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report shall contain the information in 40 CFR 63.10031(d). If there were periods during which the CMSs, including continuous emissions monitoring systems and continuous parameter monitoring systems, were out-of-control, as specified in 40 CFR 63.8(c)(7), the report shall contain the information in 40 CFR 63.10031(e). [40 CFR 63.10031(a) referencing Item 1.c. of Table 8 to Subpart UUUUU of Part 63]
 - iv. If there was 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 limitation to be exceeded [40 CFR 63.10031(g)].

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

- f. The permittee shall submit reports to U.S. EPA as required by 40 CFR 63.10031(f).
- g. See **Section F – Monitoring, Recordkeeping, and Reporting Requirements** for further requirements.

7. Specific Control Equipment Operating Conditions:

- a. The wet FGD and SCR shall be operated to maintain compliance with permitted emission limitations, and in accordance with manufacturer's specifications and standard operating practices [401 KAR 50:055].
- b. The permittee shall continuously operate the PJFF to maximize PM emission reductions at all times when the unit is in operation, provided that such operation of the PJFF is consistent with the technological limitations, manufacturer's specifications and good engineering and maintenance practices for the PJFF. Except as required during correlation testing under 40 CFR 60, Appendix B, Performance Specification 11, and Quality Assurance Requirements under Appendix F, Procedure 2, the permittee shall, at a minimum:
 - i. Monitor stack PM CEMS output to ensure that the PJFF is operating properly;
 - ii. Promptly repair, replace, or remove leaking bags identified through monitoring or inspection; and;
 - iii. Inspect the PJFF casing, ductwork, and expansion joints for openings or leakage and make any necessary repairs during the next scheduled Unit outage or unscheduled Unit outage of sufficient length. [Consent Decree, Paragraph 29A and 401 KAR 52:020, Section 10]
- c. The permittee shall continuously operate the wet FGD whenever the emission unit is in operation. This is a permanent federally-enforceable operating requirement. [Consent Decree, Paragraph 20]
- d. The permittee shall continuously operate the existing low NO_x burners and over-fire air for the emission unit. This is a permanent federally-enforceable operating requirement. [Consent Decree, Paragraph 8]
- e. 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 63.10023(g)]
- f. See **Section E – Source Control Equipment Requirements** for further requirements.

Permit Number: V-17-030 R1**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Units 7 and 35****Fugitive Emissions**

Emission Unit	Description	Construction Commenced	Maximum Operating Rate	Control Equipment
07-1	West Track Hopper	1970	820 tons/hr	Enclosures
07-2	Conveyor A-1	1970	820 tons/hr	Enclosures
07-3	Conveyor E	1970	820 tons/hr	Enclosures
07-4	Conveyor F	1970	820 tons/hr	Enclosures
07-5	Conveyor G	1970	820 tons/hr	Enclosures
07-6	Conveyor H	1970	820 tons/hr	Enclosures
35	Paved and Unpaved Roadways	1957	35,653 VMT/yr	Dust Suppression (Wet and/or Chemical)

APPLICABLE REGULATIONS:**401 KAR 63:010, *Fugitive emissions.*****1. Operating Limitations:**

- a. No person shall 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:[401 KAR 63:010, Section 3(1)]
 - i. Use, where possible, of water or chemicals for control of dust in the demolition of existing building or structures, construction operations, the grading of roads or the clearing of land; [401 KAR 63:010, Section 3(1)(a)]
 - ii. Application and maintenance of asphalt, oil, water or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts; [401 KAR 63:010, Section 3(1)(b)]
 - iii. 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; [401 KAR 63:010, Section 3(1)(c)]
 - iv. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; [401 KAR 63:010, Section 3(1)(d)]
 - v. The maintenance of paved roadways in a clean condition; [401 KAR 63:010, Section 3(1)(e)]
 - vi. 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(1)(f)]

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

- b. Discharge of visible fugitive dust emissions beyond the property line is prohibited [401 KAR 63:010, Section 3(2)].

Compliance Demonstration:

The permittee shall demonstrate compliance with these requirements by meeting the requirements of **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

2. Emission Limitations:

The permittee shall not 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 2].

3. Testing Requirements:

N/A

4. Specific Monitoring Requirements:

- a. The permittee shall monitor actions taken (e.g., water usage for roads, enclosures are in good operating condition) to prevent the discharge of visible fugitive emissions beyond the property line for each unit on a monthly basis [401 KAR 52:020, Section 10].
- b. The permittee shall monitor the processing rate (tons, VMT, gallons/hr, etc.) for each unit on a monthly basis [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the actions taken to prevent the discharge of visible fugitive emissions beyond the property line on a monthly basis [401 KAR 52:020, Section 10].
- b. The permittee shall maintain records of the processing rate (tons, VMT, gallons/hr, etc.) for each unit on a monthly basis [401 KAR 52:020, Section 10].
- c. The permittee shall maintain records regarding the maintenance and use of the air pollution control equipment [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

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

7. Specific Control Equipment Operating Conditions:

- a. The air pollution control equipment for each emission unit shall be operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055].
- b. See **Section E – Source Control Equipment Requirements** for further requirements.

Permit Number: V-17-030 R1**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Unit 9****Fugitive Coal Handling Operations**

Emission Unit	Description	Reconstruction Commenced	Maximum Operating Rate (tons/hr)	Control Equipment
9-1	East Track Hopper	1993	820	Partially Underground
9-2	Conveyor A	1993	820	Enclosures
9-3	Conveyor B	1993	1,640	Enclosures
9-4	Conveyor C	1993	820	Enclosures
9-5	Conveyor J	1993	1,640	Enclosures
9-6	Coal Stockpile	1993	1,640	Dust Suppression (Wet and Compaction)

APPLICABLE REGULATIONS:

401 KAR 60:005, Section 2(2)(gg), implementing **40 CFR 60, Subpart Y**, *Standards of Performance for Coal Preparation and Processing Plants*.

1. Operating Limitations:

N/A

2. Emission Limitations:

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

Compliance Demonstration:

Compliance shall be demonstrated according to **3. Testing Requirements.**

3. Testing Requirements:

The permittee shall determine opacity on a quarterly basis using U.S. EPA Reference Method 9 of Appendix A-4 and as specified in 40 CFR 60.257(a)(1) through (3) [40 CFR 60.255].

4. Specific Monitoring Requirements:

- a. The permittee shall monitor the amount of coal received and processed (tons) on a monthly basis [401 KAR 52:020, Section 10].
- b. The permittee shall inspect the partial enclosure control equipment monthly and make necessary repairs to assure compliance [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the amount of coal received and processed (tons) on a monthly basis [401 KAR 52:020, Section 10].
- b. The permittee shall maintain records regarding all maintenance of the control equipment for each unit [401 KAR 52:020, Section 10].
- c. The permittee shall maintain a log onsite of opacity readings required by **3. Testing Requirements** [401 KAR 52:020, Section 10].

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

6. Specific Reporting Requirements:

- a. Semiannually, the permittee shall report all 6-minute average opacities that exceed the applicable standard [401 KAR 52:020, Section 10].
- b. See **Section F – Monitoring, Recordkeeping, and Reporting Requirements** for further requirements.

7. Specific Control Equipment Operating Conditions:

- a. Dust suppression shall be utilized to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055].
- b. See **Section E – Source Control Equipment Requirements** for further requirements.

Permit Number: V-17-030 R1**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Units 13 and 16****Coal Handling Operations**

Emission Unit	Description	Construction Commenced	Maximum Operating Rate (tons/hr)	Control Equipment
13-1	(Conveyor D)	1956	820	Enclosure
13-2	Upper Traveling Tripper for Unit 3 (Conveyor K-1)	1970	820	Fabric Filter
13-3	Lower Traveling Tripper for Unit 3 (Conveyor K)	1970	820	Fabric Filter
16	Coal Crushing: Four Crushers and Crusher House	1956	1,640	Wet Scrubber

APPLICABLE REGULATIONS:**401 KAR 61:020**, *Existing process operations.***1. Operating Limitations:**

N/A

2. Emission Limitations:

- a. The permittee shall not emit any continuous emissions into the open air from a control device or stack which is equal to or greater than 40 percent opacity [401 KAR 61:020, Section 3(1)(a)].

Compliance Demonstration:The permittee shall demonstrate compliance according to **3. Testing Requirements.**

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

Process Rate (tons/hr)	Emission Limit (lbs/hr)
$P \leq 0.5$	$E = 2.58$
$0.5 < P \leq 30$	$E = 4.10P^{0.67}$
$P > 30$	$E = 55.0P^{0.11} - 40$

[401 KAR 61:020, Section 3(2)(a)].

Compliance Demonstration:

Each unit is assumed in compliance when the associated control equipment is in operation.

3. Testing Requirements:

The permittee shall perform a qualitative visual observation (lasting at least 6 minutes) of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions are observed, then the permittee shall determine the opacity of emissions by U.S. EPA Reference Method 9 as detailed in 40 CFR 60, Appendix A-4 and initiate an inspection of the control equipment for any necessary repairs [401 KAR 52:020, Section 10].

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

4. Specific Monitoring Requirements:

The permittee shall monitor the operating rate (tons) and hours of operation for each unit on a monthly basis [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of coal processed (tons) and hours of operation for each unit on a monthly basis [401 KAR 52:020, Section 10].

b. The permittee shall maintain records regarding all maintenance of the control equipment for each unit [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

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

7. Specific Control Equipment Operating Conditions:

a. The control equipment for each emission unit (cyclone, fabric filter, wet scrubber) shall be operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055].

b. See **Section E – Source Control Equipment Requirements** for further requirements.

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Emission Unit	Description	Construction Commenced	Maximum Operating Rate	Control Equipment
38	Cooling Tower 3 (forced draft)	1971	10.37 MMgal/hr	Drift Eliminators

APPLICABLE REGULATIONS:**401 KAR 61:020, Existing process operations.****1. Operating Limitations:**

N/A

2. Emission Limitations:

- a. The permittee shall not emit any continuous emissions into the open air from a control device or stack which is equal to or greater than 40 percent opacity [401 KAR 61:020, Section 3(1)(a)].
- b. Particulate matter emissions shall not exceed the limit determined according to the following table, where P is the process rate in tons/hr and E is the maximum allowable emission rate in lbs/hr.

Process Rate (tons/hr)	Emission Limit (lbs/hr)
$P \leq 0.5$	$E = 2.58$
$0.5 < P \leq 30$	$E = 4.10P^{0.67}$
$P > 30$	$E = 55.0P^{0.11} - 40$

[401 KAR 61:020, Section 3(2)(a)].

Compliance Demonstration:

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

3. Testing Requirements:

N/A

4. Specific Monitoring Requirements:

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

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the processing rate (gallons/hr) on a monthly basis [401 KAR 52:020, Section 10].
- b. The permittee shall maintain records regarding the maintenance and use of the air pollution control equipment [401 KAR 52:020, Section 10].

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

6. Specific Reporting Requirements:

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

7. Specific Control Equipment Operating Conditions:

a. The air pollution control equipment for each emission unit shall be operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055].

b. See **Section E – Source Control Equipment Requirements** for further requirements.

Permit Number: V-17-030 R1**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Units 23-29****Combustion Turbines**

Emission Unit	Description	Construction Commenced	Maximum Continuous Rating	Fuel	Control Equipment
23	Combustion Turbine (Unit 9), Model ABB GT 11N2	11/28/1995	1,368 MMBtu/hr	Natural Gas (Primary) Distillate Fuel Oil (Secondary)* Distillate Fuel Oil (Emergency)	Water injection
24	Combustion Turbine (Unit 10) Model ABB GT 11N2	12/22/1995	1,368 MMBtu/hr	Natural Gas (Primary) Distillate Fuel Oil (Secondary)* Distillate Fuel Oil (Emergency)	Water injection
25	Combustion Turbine (Unit 8) Model ABB GT 11N2	3/1/1996	1,368 MMBtu/hr	Natural Gas (Primary) Distillate Fuel Oil (Secondary)* Distillate Fuel Oil (Emergency)	Water injection
26	Combustion Turbine (Unit 11) Model ABB GT 11N2	5/8/1996	1,368 MMBtu/hr	Natural Gas (Primary) Distillate Fuel Oil (Secondary)* Distillate Fuel Oil (Emergency)	Water injection
27	Combustion Turbine (Unit 6), Model ABB GT 24	8/11/1999	1,678 MMBtu/hr	Natural Gas (Primary) Distillate Fuel Oil (Secondary)* Distillate Fuel Oil (Emergency)	Water injection when burning oil and low NO _x burners when burning natural gas
28	Combustion Turbine (Unit 7) Model ABB GT 24	8/8/1999	1,678 MMBtu/hr	Natural Gas (Primary) Distillate Fuel Oil (Secondary)* Distillate Fuel Oil (Emergency)	Water injection when burning oil and low NO _x burners when burning natural gas
29	Combustion Turbine (Unit 5) Model ABB GT 11N2	6/8/2001	1,368 MMBtu/hr	Natural Gas	Water injection

*A notification per **1. Operating Limitations d.** shall be submitted prior to the usage of distillate fuel oil as a secondary fuel for non-emergency usage

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

Applicable Regulations:

401 KAR 51:017, *Prevention of Significant Deterioration of Air Quality*;

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).

401 KAR 60:005, Section 2(2)(pp), implementing **40 CFR 60, Subpart GG**, *Standards of Performance for Stationary Gas Turbines*;

401 KAR 63:002, Section 2(4)(dddd), implementing **40 CFR 63, Subpart YYYYY**, *National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines*. This regulation applies, but these are existing units [40 CFR 63.6090(a)(1)] and they do not have to meet the requirements of this regulation [40 CFR 63.6090(b)(4)].

40 CFR 97, Subpart AAAAA, *CSAPR NO_x Annual Trading Program*

40 CFR 97, Subpart CCCCC, *CSAPR SO₂ Group 1 Trading Program*

40 CFR 97, Subpart GGGGG, *CSAPR NO_x Ozone Season Group 3 Trading Program*

40 CFR 75, Appendix E, *Optional NO_x Emissions Estimation Protocol for Gas-Fired Peaking Units and Oil-Fired Peaking Units*

1. Operating Limitations:

- a. The operating rate for each unit shall not exceed the hourly maximum continuous rating listed above, at ISO standard conditions [401 KAR 51:017].

Compliance Demonstration:

To demonstrate compliance with this limit the operating rate shall be calculated from each average hourly fuel usage rate at ISO standard conditions, and corresponding fuel heating value characteristics of the fuel combusted.

- b. The maximum operating hours for each unit shall not exceed 2,500 hours per year based on a 12-month rolling total [401 KAR 51:017].

Compliance Demonstration:

To demonstrate compliance with this limit, the 12-month total for each unit shall be calculated monthly and reported semi-annually. The permittee shall maintain onsite a log of each 12-month rolling total.

- c. The permittee shall only operate a combustion turbine on emergency distillate fuel oil if there is an emergency and the primary fuel, natural gas, is unavailable, unless, a notification per **1. Operating Limitations: d.** is submitted. [40 CFR 75, Appendix E, Section 2.1.4.3]
- d. Except for reliability tests (non-generation usage) and maintenance activities of the combustion turbines on distillate fuel oil, the permittee shall submit a notification to the Cabinet 60-days prior to switching to distillate fuel oil as a secondary fuel rather than an emergency fuel. All noted emission limits, recordkeeping and reporting requirements while operating on non-emergency distillate fuel oil will apply. Performance tests shall be completed prior to non-emergency usage of the CTs while operating on distillate fuel oil (secondary fuel). [401 KAR 52:020, Section 10]

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

2. Emission Limitations:

- a. Nitrogen oxide emissions from each unit shall not exceed the following values, at 15 percent oxygen on a dry basis:

Emission Unit	Plant Unit ID	NO _x emission limit when burning	
		Natural gas (ppm by volume)	Distillate fuel oil (ppm by volume)
23	9	42	65
24	10	42	65
25	8	42	65
26	11	42	65
27	6	25	42
28	7	25	42
29	5	25	N/A

[401 KAR 51:017 and 40 CFR 60.332(a)]

Compliance Demonstration:

For each unit, the permittee shall demonstrate compliance with this requirement by using the emission estimate method in 40 CFR 75, Appendix E. Emission rates determined on a pound per million Btu basis shall be converted to parts per million (ppm) using Formula F-5 in 40 CFR 75, Appendix F.

- b. These units are exempt from the emission limits in **2. Emission Limitations (a)** when ice fog is deemed a traffic hazard by the permittee [40 CFR 60.332(f)].

Compliance Demonstration:

During the semi-annual reporting required by **Section F – Monitoring, Recordkeeping, and Reporting Requirements**, the permittee shall submit to the Division the date, time, duration and weather conditions that created the hazard.

- c. Exemptions from the requirements of **2. Emission Limitations(a)** shall be granted on a case-by-case basis, as determined by the Division, in specific geographical areas where mandatory water restrictions are required by governmental agencies because of drought conditions. These exemptions shall be allowed only while the mandatory water restrictions are in effect. [40 CFR 60.332(i)]

Compliance Demonstration:

During the semi-annual reporting required by **Section F – Monitoring, Recordkeeping, and Reporting Requirements**, the permittee shall submit to the Division the date, time, duration and proof of mandatory water restrictions that led to the exemption.

- d. The sulfur content of fuel burned and sulfur dioxide emissions shall not exceed the following limits [401 KAR 51:017 and 40 CFR 60.333(b)]:

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

Emission Unit	Plant Unit ID	Fuel sulfur content		SO ₂ Emission (lbs/hr)
		When Emission Units 23-29 are simultaneously operating	For all other operating scenarios	
23	9	0.26%	0.30%	444
24	10	0.26%	0.30%	444
25	8	0.26%	0.30%	444
26	11	0.26%	0.30%	444
27	6	0.23%	0.26%	666
28	7	0.23%	0.26%	666
29	5	0.26%	0.30%	444

Compliance Demonstration:

To demonstrate compliance with the fuel sulfur content limits, the permittee shall determine the fuel sulfur content according to the methods in 40 CFR 75, Appendix D as required by 4. **Specific Monitoring Requirements(e)**. The permittee shall be considered in compliance with the SO₂ emission rate limits (lb/hr) when demonstrating compliance with the fuel sulfur content limits.

- e. Carbon monoxide emissions from each unit shall not exceed the following limits [401 KAR 51:017]:

Emission Unit	Plant Unit ID	CO (lb/hr)	CO (TPY, based on a 12-month rolling total)
23	9	75	93.8
24	10	75	93.8
25	8	75	93.8
26	11	75	93.8
27	6	112.5	140.63
28	7	112.5	140.63
29	5	75	93.8

Compliance Demonstration:

For each unit, the permittee shall demonstrate compliance using the results of the most recent performance test required by 3. **Testing Requirements(b)**. Until a performance test emission factor has been determined, compliance shall be demonstrated using fuel usage rates and the AP-42 emission factor of 10.564 lbs/1000 gal when burning distillate fuel oil and the vendor emission factor of 43 lb/MMscf when burning natural gas.

To demonstrate compliance with the 12-month rolling total emission limit, the 12-month total for each unit shall be calculated monthly and reported semi-annually. The permittee shall maintain onsite a log of each 12-month rolling total.

- f. Particulate emissions from each unit shall not exceed the following limits:

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Emission Unit	Plant Unit ID	PM (lb/hr)	PM (TPY, based on a 12-month rolling total)
23	9	67	83.8
24	10	67	83.8
25	8	67	83.8
26	11	67	83.8
27	6	100.5	125.63
28	7	100.5	125.63
29	5	67	83.8

[401 KAR 51:017]

Compliance Demonstration:

For each unit, the permittee shall demonstrate compliance using the results of the most recent performance test required by **3. Testing Requirements(a, b, or c)**. Until the performance test emission factor has been determined, the permittee shall demonstrate compliance by using the hourly fuel usage rate and the vendor emission factor of 6.38 lbs/1000 gallon when burning distillate fuel oil or the AP-42 emission factor of 6.73 lbs/MMscf when burning natural gas. To demonstrate compliance with 12-month rolling total emission limit, the 12-month total for each unit shall be calculated monthly and reported semi-annually. The permittee shall maintain onsite a log of each 12-month rolling total.

- g. VOC emissions from each unit shall not exceed

Emission Unit	Plant Unit ID	VOC (lb/hr)	VOC (TPY, based on a 12-month rolling total)
23	9	20.4	25.5
24	10	20.4	25.5
25	8	20.4	25.5
26	11	20.4	25.5
27	6	30.6	38.25
28	7	30.6	38.25
29	5	20.4	25.5

[401 KAR 51:017]

Permit Number: V-17-030 R1**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Compliance Demonstration:**

For each unit, the permittee shall demonstrate compliance using the results of the most recent performance test required by **3. Testing Requirements(a, b, or c)**. Until the performance test emission factor has been determined, the permittee shall demonstrate compliance by using the hourly fuel usage rate and the vendor emission factor of 1.94 lbs/1000 gallon when burning distillate fuel oil or the AP-42 emission factor of 2.14 lbs/MMscf when burning natural gas. To demonstrate compliance with 12-month rolling total emission limit, the 12-month total for each unit shall be calculated monthly and reported semi-annually. The permittee shall maintain onsite a log of each 12-month rolling total.

- h. Beryllium emissions from each unit shall not exceed the following limits [401 KAR 51:017]:

Emission Unit	Plant Unit ID	Be (lb/hr)	Be (TPY, based on a 12-month rolling total)
23	9	3.37E-3	4.21E-3
24	10	3.37E-3	4.21E-3
25	8	3.37E-3	4.21E-3
26	11	3.37E-3	4.21E-3
27	6	5.057E-3	6.35E-3
28	7	5.057E-3	6.35E-3
29	5	3.37E-3	4.21E-3

Compliance Demonstration:

1. For distillate fuel oil:

- For each unit, the permittee shall demonstrate compliance using the results of the most recent performance test required by **3. Testing Requirements(c)**.
- The permittee may use fuel supplier certification or fuel sampling for distillate fuel oil, consistent with the custom fuel monitoring plan in **4. Specific Monitoring Requirements(e)**. For compliance, the permittee shall assume all beryllium in the fuel is emitted as beryllium.
- To demonstrate compliance with 12-month rolling total emission limit, the 12-month total for each unit shall be calculated monthly and reported semi-annually. The permittee shall maintain onsite a log of each 12-month rolling total.

2. For natural gas: The permittee is assumed to be in compliance with the beryllium limit while burning natural gas.

Permit Number: V-17-030 R1**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****3. Testing Requirements:**

- a. The permittee shall conduct performance tests to determine nitrogen oxide and diluent concentration for each unit while operating on natural gas or distillate fuel oil (secondary), if applicable, using either EPA Method 20, ASTM D6522-00, or EPA Method 7E and either EPA Method 3 or 3A in appendix A to 40 CFR Part 60. All performance tests shall conform to the requirements of 40 CFR 60.355. The permittee shall conduct nitrogen oxide performance testing on each unit at least once every 20 calendar quarters, if applicable. [40 CFR 60.335(a) and 40 CFR Part 75, Appendix E, Section 2.2]
- b. To demonstrate compliance with the limits required by 401 KAR 51:017, for each unit while operating on natural gas, the permittee shall conduct performance tests for carbon monoxide and VOC for each unit, using Method 10 for carbon monoxide and Method 18 or 25 for VOC. Testing for each unit operating on natural gas shall be conducted in conjunction with the nitrogen oxides testing once every 20 calendar quarters. Emission rates shall be determined on a pound per million Btu and pound per hour basis. For compliance demonstration and emission estimates, the permittee shall either (1) interpolate emission rates based on testing results at various load levels or (2) use the highest average emission rate over all load levels. [401 KAR 50:055]
- c. To demonstrate compliance with the limits required by 401 KAR 51:017, for each unit while operating on distillate fuel oil (secondary fuel); the permittee shall conduct performance tests for carbon monoxide, particulate matter, VOC and beryllium for each unit, using Method 10 for carbon monoxide, Method 5 for particulate matter, Method 18 or 25 for VOC, and Method 104 for beryllium, or equivalents. Beryllium performance tests only need to be conducted if the permittee elects not to demonstrate compliance with the beryllium emission limit through fuel supplier certification or fuel sampling. Testing for each unit shall be conducted in conjunction with the nitrogen oxides testing once every 20 calendar quarters, if applicable. The deadline to test begins from the date of the previous test on distillate fuel oil (secondary). Testing is not required if the unit is operating as distillate fuel oil (emergency) on the deadline to test, but shall be completed prior to operating as distillate fuel oil (secondary). Emission rates shall be determined on a pound per million Btu and pound per hour basis. For compliance demonstration and emission estimates, the permittee shall either (1) interpolate emission rates based on testing results at various load levels or (2) use the highest average emission rate over all load levels. [401 KAR 50:055]

4. Specific Monitoring Requirements:

- a. The permittee shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the fuel consumption rate, hourly average heat input rate at ISO conditions, and the ratio of water or steam to fuel being fired in each unit [40 CFR 60.334(a)].

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

- b. The fuel consumption and the ratio of water or steam to fuel being fired in the unit shall be monitored during the performance test required in **3. Testing Requirements(a)** to establish acceptable values and ranges. The permittee may supplement test data with engineering analyses, design specifications, manufacturer's recommendations and other relevant information to define the acceptable parametric ranges more precisely. To meet the parameter monitoring plan requirement (which explains the procedures used to document proper operation of the NO_x emission controls) the permittee has chosen to comply with the NO_x emission measurement methodology in Appendix E to 40 CFR Part 75, by developing and keeping onsite a quality-assurance (QA) plan, as described in Section 2.3 of Appendix E and Section 1.3.6 of Appendix B to 40 CFR Part 75. [40 CFR 60.334(g)]
- c. The permittee shall select at least four operating parameters indicative of each unit's NO_x formation characteristics, and define in the QA plan for the unit the acceptable ranges for these parameters at each tested load-heat input point. The acceptable parametric ranges should be based upon the turbine manufacturer's recommendations. Alternatively, the owner or operator may use sound engineering judgment and operating experience with the unit to establish the acceptable parametric ranges, provided that the rationale for selecting these ranges is included as part of the quality-assurance plan for the unit. If the turbine uses water or steam injection for NO_x control, the water/fuel or steam/fuel ratio shall be one of these parameters. During the NO_x-heat input correlation tests, record the average value of each parameter for each load-heat input to ensure that the parameters are within the acceptable range. Re-determine the NO_x emission rate-heat input correlation for each fuel after continuously exceeding the acceptable range of any of these parameters for one or more successive operating periods totaling more than 16 unit operating hours. [40 CFR 75, Appendix E, Section 2.3.1]
- d. When the operating levels of certain parameters exceed the limits specified in **4. Specific Monitoring Requirements(c)**, or where the Division issues a notice requesting retesting because the NO_x emission rate data availability for when the unit operates within all quality assurance/quality control parameters in this section since the last test is less than 90.0 percent, as calculated by the Division, complete retesting of the NO_x emission rate by the earlier of: (1) 30 unit operating days (as defined in 40 CFR 72.2) or (2) 180 calendar days after exceeding the limits or after the date of issuance of a notice from the Division to re-verify the unit's NO_x emission rate. The permittee shall submit test results in accordance with 40 CFR 75.60 within 45 days of completing the retesting. [40 CFR 75, Appendix E, Section 2.3]
- e. The permittee shall continue to use the custom fuel monitoring plan, previously approved and provided in 40 CFR 75, Appendix D, Tables D4-D5 and Sections 2.2.1, 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3. The permittee shall maintain a copy onsite of the chosen monitoring plans for natural gas and distillate fuel oil. [40 CFR 60.334(h)(4)]
- f. Excluding the startup and shutdown periods, if any average emission value exceeds the hourly limits, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and complete necessary process repairs or take corrective action as soon as practicable [401 KAR 52:020, Section 10].

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

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the fuel consumption rates, hourly average heat input rate at ISO conditions, and water or steam to fuel ratios, as determined by the continuous monitoring system [40 CFR 60.334(a)].
- b. The permittee shall maintain records of the hours of operation and power output (MW) for each unit on a monthly basis [401 KAR 52:020, Section 10].
- c. The permittee shall maintain records of the four (or more) operating parameters selected for the parameter monitoring plan on an hourly basis for each unit. This does not apply for emergency distillate fuel oil [401 KAR 52:020, Section 10].
- d. The permittee shall identify the recommended range of quality assurance- and quality control-related operating parameters. The permittee shall keep records of these operating parameters for each hour of unit operation (i.e., fuel combustion). The permittee shall keep a written record of the procedures used to perform NO_x emission rate testing. The permittee shall keep a copy of all data and results from the initial, and from the most recent, NO_x emission rate testing, including the values of quality assurance parameters specified in section 2.3 of Appendix E to 40 CFR Part 75. [40 CFR 75, Appendix B, Section 1.3.6]
- e. The permittee shall maintain records of the fuel monitoring plan, including the results of each fuel sampling [401 KAR 52:020, Section 10].
- f. 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, recorded in a permanent form suitable for inspection [401 KAR 52:020, Section 10].
- g. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the emissions unit, any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative [401 KAR 52:020, Section 10].
- h. The permittee shall maintain records regarding all maintenance of the water injection system [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

- a. The permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR 60.7(c) for each unit. Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions and monitor downtime that shall be reported are:
 - i. For nitrogen oxides, when using water or steam injection (excluding Emission Units 27 and 28 when burning natural gas) [40 CFR 60.334(j)(1)(i)]:

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

1. An excess emission shall be any unit operating hour for which the average steam or water to fuel ratio, as measured by the continuous monitoring system, falls below the acceptable steam or water to fuel ratio needed to demonstrate compliance with the nitrogen oxide limit in, as established during the performance test. Any unit operating hour in which no water or steam is injected into the turbine shall also be considered an excess emission.
 2. A period of monitor downtime shall be any unit operating hour in which water or steam is injected into the turbine, but the essential parametric data needed to determine the steam or water to fuel ratio are unavailable or invalid.
 3. Each report shall include the average steam or water to fuel ratio, average fuel consumption, ambient conditions (temperature, pressure, and humidity), and gas turbine load. The permittee does not have to report ambient conditions if the permittee opts to use the worst case ISO correction factor as specified in 40 CFR 60.334(b)(3)(ii), or if the permittee is not using the ISO correction equation under the provisions of 40 CFR 60.334(b)(1).
- ii. For nitrogen oxides from Emission Units 27 and 28 when burning natural gas, the permittee shall use the previously submitted and approved procedure for monitoring NO_x compliance in Appendix E to 40 CFR 75 [40 CFR 60.334(c)].
- iii. For sulfur dioxide [40 CFR 60.334(j)(2)]:
1. For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds the applicable value in weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit, or.
 2. If the option to sample each delivery of fuel oil has been selected, the permittee shall immediately switch to one of the other oil sampling options (i.e. daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.8 weight percent. The owner or operator shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and shall evaluate excess emissions according to Subsection (i) above. When all of the fuel from delivery has been burned, the permittee may resume using the as-delivered sampling option.
 3. A period of monitor downtime begins with a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample..

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

- iv. Ice fog: Each period during which an exemption is in effect shall be reported in writing quarterly. For each period the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time the air pollution control system was reactivated shall be reported. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter [40 CFR 60.334(j)(3)].
 - v. Emergency Fuel: Each period during which an exemption provided in 40 CFR 60.332(k) is in effect shall be included in the report required in 40 CFR 60.7(c). For each period, the type, reasons, and duration of the firing of the emergency fuel shall be reported [40 CFR 60.334(j)(4)].
 - vi. All reports required under 40 CFR 60.7(c) shall be postmarked by the 30th day following the end of each 6-month period [40 CFR 60.334(j)(4)].
- b. See **Section F – Monitoring, Recordkeeping, and Reporting Requirements** for further requirements.
7. **Specific Control Equipment Operating Conditions:**
- a. The water injection control system shall be operated to maintain compliance with permitted emission limitations, consistent with manufacturer’s specifications and standard operating practices [401 KAR 50:055].
 - b. See **Section E – Source Control Equipment Requirements** for further requirements.

Permit Number: V-17-030 R1**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Units 30-34****Limestone Handling**

Emission Unit	Description	Construction Commenced	Maximum Operating Rating (tons/hr)	Control Equipment
30	Limestone truck dump station #1	01/01/2008	250	Fabric filter
31	Limestone truck dump station #2	01/01/2008	250	Fabric filter
32	Limestone stacking tube	03/01/2008	500	Fabric filter
33	Limestone reclaim conveyor #1	03/01/2008	500	Fabric filter
34	Limestone reclaim conveyor #2	03/01/2008	500	

APPLICABLE REGULATIONS:**401 KAR 59:010**, *New process operations.***401 KAR 60:005, Section 2(2)(qqq)** implementing **40 CFR 60, Subpart OOO**, *Standards of Performance for Nonmetallic Mineral Processing Plants***1. Operating Limitations:**

N/A

2. Emission Limitations:

- a. Emission Units 32-34 shall meet a PM limit of 0.022 gr/dscf and an opacity limit of 7 percent 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 as required under 40 CFR 60.8 [40 CFR 60.672(a)].

Compliance Demonstration:

To demonstrate compliance with this requirement the permittee shall meet the testing requirements in **3. Testing Requirements**. Emission Units 30 and 31 are exempt from these emission limitations [40 CFR 60.672(d)].

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

Compliance Demonstration:

For Emission Units 32-34, compliance shall be demonstrated according to **4. Specific Monitoring Requirements(a)** and **(b)**. For Emission Unit 30 and 31, compliance shall be demonstrated according to **4. Specific Monitoring Requirements (c)**

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

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

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

Compliance Demonstration

For Emission Units 32-34, these units shall be assumed in compliance when in compliance with **2. Emission Limitations (a) and (b)**. For Emission Units 30 and 31, compliance shall be assumed when in compliance with **2. Emission Limitations (b)**.

3. Testing Requirements:

- a. In conducting the performance tests required by 40 CFR 60.8, for Emission Units 32-34, the permittee shall use as reference methods and procedures the test methods in appendices A-1 through A-7 of 40 CFR Part 60, except as provided in 40 CFR 60.8. The permittee may use the alternative methods and procedures provided in 40 CFR 60.675(e). [40 CFR 60.675(a)]
- b. For the initial compliance demonstration required by 40 CFR 60.8, the permittee shall determine compliance with the PM standards using U.S. EPA Reference Method 5 of Appendix A-3 to 40 CFR 60 or U.S. EPA Reference Method 17 of Appendix A-6 to 40 CFR 60. The sample volume shall be at least 60 dscf (1.70 dscm). For U.S. EPA Reference Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but not higher than 121°C (250°F), to prevent water condensation on the filter. [40 CFR 60.675(b)(1)]
- c. For the initial compliance demonstration required by 40 CFR 60.8, the permittee shall determine compliance with the opacity standards using U.S. EPA Reference Method 9 of Appendix A-4 to 40 CFR 60 and the procedures in 40 CFR 60.11 [40 CFR 60.675(b)(2)].

4. Specific Monitoring Requirements:

- a. The permittee shall conduct quarterly 30-minute visible emissions inspection using U.S. EPA Reference Method 22 (40 CFR Part 60, Appendix A-7) for each fabric filter. The U.S. EPA Reference Method 22 shall be conducted while the fabric filter is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the permittee shall initiate corrective action within 24 hours to return the fabric filter to normal operation. The permittee shall record each U.S. EPA Reference Method 22 test, including the date and any other corrective actions taken, in the logbook required under 40 CFR 60.676(b). The permittee may establish a different fabric filter-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to 40 CFR 60.675(b) simultaneously with a U.S. EPA Reference Method 22 to determine what constitutes normal visible emissions from that affected facility's fabric filter when it is in compliance with the applicable PM concentration limit in Table 2 of 40 CFR 60, Subpart OOO. The revised visible emissions

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

success level shall be incorporated into the permit for the affected facility. [40 CFR 60.674(c)]

- b. As an alternative to the periodic U.S. EPA Reference Method 22 visible emissions inspections, the permittee may use a bag leak detection system. The permittee shall install, operate, and maintain the bag leak detection system according to 40 CFR 60.674(d)(1) through (3). [40 CFR 60.674(d)]
- c. A qualitative visual observation of the opacity of emissions from the stack on a weekly basis and maintain a log of the observations. If visible emissions from the stack are present (not including condensed water vapor within the plume), then the opacity shall be determined by U.S. EPA Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection of control equipment shall be initiated for any necessary repairs. [401 KAR 52:020, Section 10]
- d. The permittee shall monitor and record the amount of limestone processed (tons) and hours of operation on a monthly basis [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of each periodic inspection, including dates and any corrective actions taken, in a logbook (in written or electronic format). The logbook shall be kept onsite and make hard or electronic copies of the logbook available upon request. [401 KAR 52:020, Section 10]
- b. For each bag leak detection system installed and operated, the permittee shall keep records as specified in 40 CFR 60.676(2)(i) through (iii) (including records of the bag leak detection system output, records of adjustments to the system, and date and time of all bag leak detection system alarms and any corrective actions taken) [401 KAR 52:020, Section 10].
- c. The permittee shall maintain records of the qualitative visual observation and any U.S. EPA Reference Method 9 readings performed. [401 KAR 52:020, Section 10]
- d. The permittee shall maintain records of limestone processed (tons) and hours of operation on a monthly basis [401 KAR 52:020, Section 10].
- e. The permittee shall maintain records of all maintenance regarding the control equipment [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

- a. The permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance, including reports of opacity observations made using U.S. EPA Reference Method 9 (40 CFR part 60, appendix A-4) to demonstrate compliance with 40 CFR 60.672(b), (e) and (f) [40 CFR 60.676(f)].
- b. See **Section F – Monitoring, Recordkeeping, and Reporting Requirements** for further requirements.

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

7. Specific Control Equipment Operating Conditions:

- a. The fabric filter shall be operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055].
- b. See Section E – Source Control Equipment Requirements for further requirements.

Permit Number: V-17-030 R1**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Unit 39****Existing 4SLB SI Emergency RICE**

Emission Unit	Description	Manufacture Date	Maximum Continuous Rating	Fuel	Control Equipment
39	WINCO Generator, Model B35CS-17R1D (Dix Dam Crest Gate Emergency Generator)	1970	40 HP	Gasoline	None

APPLICABLE REGULATIONS:

401 KAR 63:002, Section 2(4)(eeee), implementing **40 CFR 63, Subpart ZZZZ**, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*.

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. Operating Limitations:

- a. The permittee shall:
 - i. Change oil and filter every 500 hours of operation or annually, whichever comes first, or according to an oil analysis program; [40 CFR 63:6602 referencing Item 6.a. of Table 2c to Subpart ZZZZ of Part 63; and 40 CFR 63.6625(j)]
 - ii. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; [40 CFR 63.6602 referencing Item 6.b. of Table 2c to Subpart ZZZZ of Part 63]
 - iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary; and [40 CFR 63.6602 referencing Item 6.c. of Table 2c to Subpart ZZZZ of Part 63]
 - iv. 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 referencing Table 2c to Subpart ZZZZ of Part 63; and 40 CFR 63.6625(h)].
- b. 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 own 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 [40 CFR 63.6625(e) and 40 CFR 63.6640(a) referencing Item 9. of Table 6 to Subpart ZZZZ of Part 63].

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

- c. The permittee shall operate the emergency stationary RICE according to the requirements in 40 CFR 63.6640(f)(1) through (3). 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 non-emergency situations for 50 hours per year, as described in 40 CFR 63.6640(f)(1) through (3), is prohibited. If the engine is not operated according to the requirements in 40 CFR 63.6640(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 63, Subpart ZZZZ and shall meet all requirements for non-emergency engines. [40 CFR 63.6640(f)]
- i. There is no time limit on the use of emergency stationary RICE in emergency situations [40 CFR 63.6640(f)(1)].
- ii. The permittee may operate the emergency stationary RICE for maintenance checks and readiness testing for a maximum of 100 hours per calendar year, 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. Any operation for non-emergency situations as allowed by 40 CFR 63.6640(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 63.6640(f)(2). [40 CFR 63.6640(f)(2) and (f)(2)(i)]
- iii. 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 40 CFR 63.6640(f)(2). 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. [40 CFR 63.6640(f)(3)]
- d. The permittee shall be in compliance with the emission limitations and operating limitations that apply in 40 CFR 63, Subpart ZZZZ at all times [40 CFR 63.6605(a)]
- e. At all times the permittee shall operate and maintain the emission unit, 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 any further efforts to reduce emissions if levels required by 40 CFR 63, Subpart ZZZZ 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 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 63.6605(b)]

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- f. 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 shall be performed at the same frequency specified for changing the oil in 40 CFR 63.6602. The analysis program shall 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 permittee is not required to change the oil. If any of the limits are exceeded, the permittee shall 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 permittee shall change the oil within 2 business days or before commencing operation, whichever is later. The permittee shall 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 shall be part of the maintenance plan for the engine. [40 CFR 63.6625(j)]

2. Emission Limitations:

N/A

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

- a. The permittee shall install a non-resettable hour meter if one is not already installed [40 CFR 63.6625(f)].
- b. The permittee shall monitor fuel usage (Mgal) and hours of operation on a monthly basis [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- 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 plan for the engine. [40 CFR 63.6655(e)].

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

- c. 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. [40 CFR 63.6655(f)(1)]
- d. Records shall be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). The permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record. The permittee shall keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to 40 CFR 63.10(b)(1). [40 CFR 63.6660]
- e. The permittee shall maintain records of fuel usage (Mgal) on a monthly basis [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

- a. The permittee 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. The permittee 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 – Monitoring, Recordkeeping, and Reporting Requirements** for further requirements.

Permit Number: V-17-030 R1**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Units 40-44****Existing CI Emergency RICE <500 HP**

Emission Unit	Description	Manufacture Date	Maximum Continuous Rating (HP)	Fuel	Control Equipment
40	Cummins, Model 3304 (Brown Station Emergency Generator)	2000	135	Diesel	None
41	Caterpillar, Model 3306 (CT5 Emergency Generator)	2000	308	Diesel	None
42	Perkins Engine, Model DP150P3 (CT6 Emergency Generator)	1999	230	Diesel	None
43	Perkins Engine, Model DP150P3 (CT7 Emergency Generator)	1999	230	Diesel	None
44	Cummins, Model 681A5.9-F-1 (CT Area Fire Pump Engine)	1994	208	Diesel	None

APPLICABLE REGULATIONS:

401 KAR 63:002, Section 2(4)(eeee), implementing **40 CFR 63, Subpart ZZZZ**, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*.

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. Operating Limitations:

- a. The permittee shall:
 - i. Change oil and filter every 500 hours of operation or annually, whichever comes first, or according to an oil analysis program; [40 CFR 63.6602 referencing Item 1.a. of Table 2c to Subpart ZZZZ of Part 63; and 40 CFR 63.6625(i)]
 - ii. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first and replace as necessary; [40 CFR 63.6602 referencing Item 1.b. of Table 2c to Subpart ZZZZ of Part 63]
 - iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary; and [40 CFR 63.6602 referencing Item 1.c. of Table 2 to Subpart ZZZZ of Part 63]

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

- iv. 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. [40 CFR 63.6602 referencing Table 2c to Subpart ZZZZ of Part 63; and 40 CFR 63.6625(h)]
- b. The permittee shall operate and maintain the stationary RICE according to the manufacturer's emission-related operating and maintenance 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 [40 CFR 63.6625(e) and 63.6640(a) referencing Item 9. of Table 6 to Subpart ZZZZ of Part 63].
- c. The permittee shall operate the emergency stationary RICE according to the requirements in 40 CFR 63.6640(f)(1) through (3). 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 in 40 CFR 63.6640(f)(1) through (3), is prohibited. If the engine is not operated according to the requirements in 40 CFR 63.6640(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 63, Subpart ZZZZ and shall meet all requirements for non-emergency engines. [40 CFR 63.6640(f)]
 - i. There is no time limit on the use of emergency stationary RICE in emergency situations [40 CFR 63.6640(f)(1)].
 - ii. The permittee may operate the emergency stationary RICE for maintenance checks and readiness testing for a maximum of 100 hours per calendar year, 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. Any operation for non-emergency situations as allowed by 40 CFR 63.6640(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 63.6640(f)(2). [40 CFR 63.6640(f)(2) and (f)(2)(i)]
 - iii. 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 40 CFR 63.6640(f)(2). 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. [40 CFR 63.6640(f)(3)]

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

- d. The permittee shall be in compliance with the emission limitations and operating limitations that apply in 40 CFR 63, Subpart ZZZZ at all times [40 CFR 63.6605(a)]
- e. At all times the permittee shall operate and maintain the emission unit, 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 any further efforts to reduce emissions if levels required by 40 CFR 63, Subpart ZZZZ 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 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 63.6605(b)]
- f. 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 shall be performed at the same frequency specified for changing the oil in 40 CFR 63.6602. The analysis program shall 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 permittee is not required to change the oil. If any of the limits are exceeded, the permittee shall change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee shall change the oil within 2 days or before commencing operation, whichever is later. The permittee shall 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 shall be part of the maintenance plan for the engine. [40 CFR 63.6625(i)]

2. Emission Limitations:

N/A

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

- a. The permittee shall install a non-resettable hour meter if one is not already installed [40 CFR 63.6625(f)].
- b. The permittee shall monitor the fuel usage (Mgal) and hours of operation on a monthly basis. [401 KAR 52:020, Section 10]

Permit Number: V-17-030 R1**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****5. Specific Recordkeeping Requirements:**

- 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 plan for the engine. [40 CFR 63.6655(e)].
- c. The permittee shall 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. [40 CFR 63.6655(f)(1)]
- d. Records shall be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). The permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record. The permittee shall keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to 40 CFR 63.10(b)(1). [40 CFR 63.6660]
- e. The permittee shall maintain records of fuel usage (Mgal) on a monthly basis [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

- a. The permittee shall report each instance in which the permittee did not meet an applicable operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to 40 CFR 63, Subpart ZZZZ. These instances are deviations from the emission and operating limitations in 40 CFR 63, Subpart ZZZZ and shall be reported according to 40 CFR 63.6650. [40 CFR 63.6640(b)]
- b. The permittee 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 – Monitoring, Recordkeeping, and Reporting Requirements** for further requirements.

Permit Number: V-17-030 R1**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Units 45-46****New CI Emergency Fire Pump RICE**

Emission Unit	Description	Model Year	Maximum Continuous Rating (HP)	Fuel	Control Equipment
45	John Deere, Model 6081HF001, 8.1 L displacement per cylinder (Steam Plant Emergency Fire Pump Engine #1)	April 2007	375	Diesel	None
46	John Deere, Model 6081HF001, 8.1 L displacement per cylinder (Steam Plant Emergency Fire Pump Engine #2)	April 2007	375	Diesel	None

APPLICABLE REGULATIONS:

401 KAR 60:005, Section 2(2)(III), implementing **40 CFR 60, Subpart IIII**, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*

Note: D.C. Circuit Court [*Delaware v. EPA*, 785 F. 3d 1 (D.C. Cir. 2015)] has vacated the provisions in 40 CFR 60, Subpart IIII that contain the 100-hour exemption for operation of emergency engines for purposes of emergency demand response under 40 CFR 60.4211(f)(2)(ii)-(iii). The D.C. Circuit Court issued the mandate for the vacatur on May 4, 2016.

401 KAR 63:002, Section 2(4)(eeee), implementing **40 CFR 63, Subpart ZZZZ**, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*.

1. Operating Limitations:

- a. The permittee shall meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII [40 CFR 63.6590(c)(7)].
- b. The permittee shall use diesel fuel certified to the standards in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted [40 CFR 60.4207(b)].

Compliance Demonstration:

The permittee shall demonstrate compliance by using fuel supplier certification.

- c. The permittee shall operate the emergency stationary ICE according to the requirements in 40 CFR 60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 CFR 60, Subpart IIII, 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 40 CFR 60.4211(f)(1) through (3), is prohibited. If the engine is not operated according to the requirements in 40 CFR 60.4211(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 60, Subpart IIII and shall meet all requirements for non-emergency engines. [40 CFR 60.4211(f)]

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

- i. There is no time limit on the use of emergency stationary ICE in emergency situations [40 CFR 60.4211(f)(1)].
- ii. The permittee may operate the emergency stationary ICE for maintenance checks and readiness testing for a maximum of 100 hours per calendar year, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 60.4211(f)(2). [40 CFR 60.4211(f)(2) and (f)(2)(i)]
- iii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [40 CFR 60.4211(f)(3) and (f)(3)(i)]
 1. The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [40 CFR 60.4211(f)(3)(i)(A)]
 2. 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 [40 CFR 60.4211(f)(3)(i)(B)].
 3. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines [40 CFR 60.4211(f)(3)(i)(C)].
 4. The power is provided only to the facility itself or to support the local transmission and distribution system [40 CFR 60.4211(f)(3)(i)(D)].
 5. The permittee 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 permittee. [40 CFR 60.4211(f)(3)(i)(E)]

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

2. Emission Limitations:

The permittee shall comply with the following emission standards for each unit:

Pollutant	Emission Standard
NMHC + NO _x	7.8 g/HP-hr
CO	2.6 g/HP-hr
PM	0.40 g/HP-hr

[40 CFR 60.4205(c)]

Compliance Demonstration:

- a. The permittee shall demonstrate compliance with the emission standards by purchasing an engine certified to the emission standards listed above. The engine shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g). In the absence of certification from the manufacturer, the permittee shall maintain records of performances tests conducted on the engines, or similar engines, which demonstrate the engines meet the emission standards and that the testing was conducted according to **3. Testing Requirements.** [40 CFR 60.4211(c) and 401 KAR 52:020, Section 10]
- b. The permittee shall operate and maintain the stationary CI ICE and control device according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer, over the entire life of the engine. In addition, the permittee shall 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) and 40 CFR 60.4206]

3. Testing Requirements:

- a. Testing shall conform to the requirements of 40 CFR 60.4212(a) through (d), as appropriate [40 CFR 60.4212].
- b. Testing shall be conducted at such times as may be requested by the cabinet in accordance with 401 KAR 50:045, Section 4.

4. Specific Monitoring Requirements:

- a. The permittee shall install a non-resettable hour meter prior to startup of the engine [40 CFR 60.4209(a)].
- b. The permittee shall monitor hours of operation and fuel usage (Mgal) on a monthly basis [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records necessary to demonstrate compliance with the applicable emission limits, according to the method specified, and fuel supplier certification according to the applicable fuel requirement. Records of performance tests shall report emission limits and actual emissions in the units of the applicable standard. [401 KAR 52:020, Section 10]

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

- b. The permittee shall maintain records of hours of operation and fuel usage (Mgal) on a monthly basis [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

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

Permit Number: V-17-030 R1**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

Emission Units 47-49 & 51-52

New Emergency CI RICE

Emission Unit	Description	Model Year	Maximum Continuous Rating	Fuel	Control Equipment
47	John Deere, Model 6125HF070; 6 cylinders 12.5 L total displacement (Emergency Quench Water Pump Engine #1) –Tier 2 engine	April 2007	485 HP (362 kW)	Diesel	None
48	John Deere, Model 6125HF070; 6 cylinders 12.5 L total displacement (Emergency Quench Water Pump Engine #2) –Tier 2 engine	April 2007	485 HP (362 kW)	Diesel	None
49	Generac Make: Doosan; Model: 390; 10 cylinder, 18.3 L total displacement –Tier 2, emergency engine	2010	752 HP (561 kW)	Diesel	None
51 & 52	2 Cummins QSK23-G7 NR2, Tier 2 certified emergency engines	2014	1220 HP each	Diesel	None

APPLICABLE REGULATIONS:

401 KAR 60:005, Section 2(2)(III), implementing **40 CFR 60, Subpart IIII**, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*

Note: D.C. Circuit Court [*Delaware v. EPA*, 785 F. 3d 1 (D.C. Cir. 2015)] has vacated the provisions in 40 CFR 60, Subpart IIII that contain the 100-hour exemption for operation of emergency engines for purposes of emergency demand response under 40 CFR 60.4211(f)(2)(ii)-(iii). The D.C. Circuit Court issued the mandate for the vacatur on May 4, 2016.

401 KAR 63:002, Section 2(4)(eeee), implementing **40 CFR 63, Subpart ZZZZ**, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*.

1. Operating Limitations:

- a. For Emission Units 47 and 48, the permittee shall meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII [40 CFR 63.6590(c)(7)].
- b. For Emission Units 49, 51, and 52, the permittee does not have to meet the requirements of 40 CFR 63, Subpart ZZZZ and 40 CFR 63, Subpart A except for the initial notification requirements of 40 CFR 63.6645(f) [40 CFR 63.6590(b)(i)].
- c. The permittee shall use diesel fuel certified to the standards in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted [40 CFR 60.4207(b)].

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

Compliance Demonstration:

The permittee shall demonstrate compliance by using fuel supplier certification.

- d. The permittee shall operate the emergency stationary ICE according to the requirements in 40 CFR 60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 CFR 60, Subpart III, 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 40 CFR 60.4211(f)(1) through (3), is prohibited. If the engine is not operated according to the requirements in 40 CFR 60.4211(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 60, Subpart III and shall meet all requirements for non-emergency engines. [40 CFR 60.4211(f)]
 - i. There is no time limit on the use of emergency stationary ICE in emergency situations [40 CFR 60.4211(f)(1)].
 - ii. The permittee may operate the emergency stationary ICE for maintenance checks and readiness testing for a maximum of 100 hours per calendar year, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 60.4211(f)(2). [40 CFR 60.4211(f)(2) and (f)(2)(i)]
 - iii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. 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: [40 CFR 60.4211(f)(3) and (f)(3)(i)]
 1. The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [40 CFR 60.4211(f)(3)(i)(A)]
 2. 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 [40 CFR 60.4211(f)(3)(i)(B)].

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

3. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines [40 CFR 60.4211(f)(3)(i)(C)].
4. The power is provided only to the facility itself or to support the local transmission and distribution system [40 CFR 60.4211(f)(3)(i)(D)].
5. The permittee 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 permittee. [40 CFR 60.4211(f)(3)(i)(E)]

2. Emission Limitations:

The permittee shall, for all units, comply with the emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113, for all pollutants, for the appropriate Tier [40 CFR 60.4205(b) referencing 40 CFR 60.4202(a)(2)].

Compliance Demonstration:

- a. The permittee shall demonstrate compliance with the emission standards by purchasing an engine certified to the emission standards listed above. The engine shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g). In the absence of certification from the manufacturer, the permittee shall maintain records of performances tests conducted on the engines, or similar engines, which demonstrate the engines meet the emission standards and that the testing was conducted according to **3. Testing Requirements.** [40 CFR 60.4211(c) and 401 KAR 52:020, Section 10]
- b. The permittee shall operate and maintain the stationary CI ICE and control device according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer, over the entire life of the engine. In addition, the permittee shall 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) and 40 CFR 60.4206]

3. Testing Requirements:

- a. Testing shall conform to the requirements of 40 CFR 60.4212(a) through (d), as appropriate [40 CFR 60.4212].
- b. Testing shall be conducted at such times as may be requested by the cabinet in accordance with 401 KAR 50:045, Section 4.

4. Specific Monitoring Requirements:

- a. The permittee shall install a non-resettable hour meter prior to startup of the engine [40 CFR 60.4209(a)].

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

- b. The permittee shall monitor hours of operation and fuel usage (Mgal) on a monthly basis [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records necessary to demonstrate compliance with the applicable emission limits, according to the method specified, and fuel supplier certification according to the applicable fuel requirement. Records of performance tests shall report emission limits and actual emissions in the units of the applicable standard. [401 KAR 52:020, Section 10]
- b. The permittee shall maintain records of hours of operation and fuel usage (Mgal) on a monthly basis [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

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

Permit Number: V-17-030 R1**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Unit 50****CCR Landfill Operations and Haul Trucks**

Emission Unit	Description	Construction Commenced	Control Equipment
50	Coal combustion residue disposal system – Landfill and material transport operations	June 2013	Wet Suppression by watering, cleaning and road maintenance

APPLICABLE REGULATION:**401 KAR 63:010, *Fugitive emissions.*****1. Operating Limitations:**

- a. No person shall 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: [401 KAR 63:010, Section 3(1)]
 - i. Use, where possible, of water or chemicals for control of dust in the demolition of existing building or structures, construction operations, the grading of roads or the clearing of land; [401 KAR 63:010, Section 3(1)(a)]
 - ii. Application and maintenance of asphalt, oil, water or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts; [401 KAR 63:010, Section 3(1)(b)]
 - iii. 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; [401 KAR 63:010, Section 3(1)(c)]
 - iv. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; [401 KAR 63:010, Section 3(1)(d)]
 - v. The maintenance of paved roadways in a clean condition; [401 KAR 63:010, Section 3(1)(e)]
 - vi. 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(1)(f)]
- b. Discharge of visible fugitive dust emissions beyond the property line is prohibited [401 KAR 63:010, Section 3(2)].

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

- c. When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from the landfill or equipment in such a manner and amount as to cause a nuisance or to violate any administrative regulation, the secretary may order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that all air and gases and air or gas-borne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air [401 KAR 63:010, Section 3(3)].
- d. At all times when in motion, open bodied trucks, operating outside company property, transporting materials likely to become airborne shall be covered. No one shall 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].

Compliance Demonstration:

The permittee shall demonstrate compliance with these requirements by complying with the procedures listed above, posting a 15 mile per hour sign for each road way to enforce speed limit and meeting the requirements of **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

2. Emission Limitations:

The permittee shall not 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 2].

3. Testing Requirements:

N/A

4. Specific Monitoring Requirements:

- a. The permittee shall monitor actions taken (e.g. water usage for roads, enclosures are in good operating condition) to prevent the discharge of visible fugitive emissions beyond the property line for each unit on a daily basis [401 KAR 52:020, Section 10].
- b. The permittee shall monitor the rate of material hauled (tons, VMT, gallons/hr, etc.) for each unit or vehicle on paved and unpaved roadways on a monthly basis [401 KAR 52:020, Section 10].
- c. In addition, visual observations shall be made on each weekday (Monday through Friday) to determine if fugitive dust is becoming airborne from associated operations as a result of vehicular traffic or windy conditions on paved and unpaved roadways. If such a condition develops, water or a chemical wetting agent shall be applied to these areas as specified in 401 KAR 63:010.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the visual observations and actions taken to prevent the discharge of visible fugitive emissions beyond the property line on a daily basis [401 KAR 52:020, Section 10].

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

- b. The permittee shall maintain records of the processing rate (tons, VMT, gallons/hr, etc.) for each vehicle or unit for paved and unpaved roadways on a monthly basis [401 KAR 52:020, Section 10].
 - c. Records regarding the maintenance and use of the air pollution control equipment shall be maintained [401 KAR 52:020, Section 10].
 - d. The permittee shall maintain records of the calculations, on a monthly basis, to determine the fugitive emissions from paved and unpaved roads with all data used in calculations. Emission calculations shall be based on the most current AP-42 emission factors for paved and unpaved roadways for that year. [401 KAR 52:020, Section 10]
6. **Specific Reporting Requirements:**
See **Section F – Monitoring, Recordkeeping, and Reporting Requirements** for further requirements.
7. **Specific Control Equipment Operating Conditions:**
- a. The associated air pollution control equipment for the emission unit shall be operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055].
 - b. See **Section E – Source Control Equipment Requirements** for further requirements.

Permit Number: V-17-030 R1**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Unit 55-57****Natural Gas Process Heaters**

Emission Unit	Description	Construction Commenced	Maximum Continuous Rating	Fuel
55 (CT NG – 05)	NG Preheater NATCO S832-205D	2003	2.4 MMBtu/hr	Natural Gas
56 (CT NG – 06)	NG Preheater ETI Custom Built	2000	7.0 MMBtu/hr	Natural Gas
57 (CT NG – 07)	NG Preheater ETI Custom Built	2000	7.0 MMBtu/hr	Natural Gas

APPLICABLE REGULATIONS:**401 KAR 59:015**, *New indirect heat exchangers***401 KAR 63:002, Section (2)(4)(iii)**, 40 C.F.R. 63.7480 to 63.7575, Tables 1 to 13 (**Subpart DDDDD**), *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters***1. Operating Limitations:**

- a. For Emission Unit 55, the permittee shall complete a tune-up every 5 years as specified in 40 CFR 63.7540 [40 CFR 63.7500(a)(1) referencing Item 1. of 40 CFR 63, Subpart DDDDD, Table 3; 40 CFR 63.7500(e)]
- b. For Emission Units 56 and 57, the permittee shall complete a tune-up every 2 years as specified in 40 CFR 63.7540. [40 CFR 63.7500(a)(1) referencing Item 2. of 40 CFR 63, Subpart DDDDD, Table 3; 40 CFR 63.7500(e)]
- c. These units shall have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in 40 CFR 63, Subpart DDDDD, Table 3, satisfies the energy assessment requirement. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISI 50001 for at least one year between January 1, 2008 and the compliance date specified in 40 CFR 63.7495 that includes the affected units also satisfies the energy assessment requirement. The energy assessment shall include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in 40 CFR 63.7575: [40 CFR 63.7500(a)(1) referencing Item 4. of 40 CFR 63, Subpart DDDDD, Table 3]
 - i. A visual inspection of the boiler or process heater system. [40 CFR 63.7500(a)(1) referencing Item 4.a. of 40 CFR 63, Subpart DDDDD, Table 3]

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

- ii. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints. [40 CFR 63.7500(a)(1) referencing Item 4.b. of 40 CFR 63, Subpart DDDDD, Table 3]
 - iii. An inventory of major energy use systems consuming energy from the affected boilers and process heaters and which are under the control of the permittee. [40 CFR 63.7500(a)(1) referencing Item 4.c. of 40 CFR 63, Subpart DDDDD, Table 3]
 - iv. A review of the facility's energy management program and provide recommendations for improvements consistent with the definition of energy management program, if identified. [40 CFR 63.7500(a)(1) referencing Item 4.d. of 40 CFR 63, Subpart DDDDD, Table 3]
 - v. A review of the facility's energy management program and provide recommendations for improvements consistent with the definition of energy management program, if identified. [40 CFR 63.7500(a)(1) referencing Item 4.e. of 40 CFR 63, Subpart DDDDD, Table 3]
 - vi. A list of cost-effective energy conservation measures that are within the facility's control. [40 CFR 63.7500(a)(1) referencing Item 4.f. of 40 CFR 63, Subpart DDDDD, Table 3]
 - vii. A list of the energy savings potential of the energy conservation measures identified. [40 CFR 63.7500(a)(1) referencing Item 4.g. of 40 CFR 63, Subpart DDDDD, Table 3]
 - viii. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. [40 CFR 63.7500(a)(1) referencing Item 4.h. of 40 CFR 63, Subpart DDDDD, Table 3]
- d. 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. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that 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 63.7500(a)(3)]
- e. These units are not subject to the emission limits in 40 CFR 63, Subpart DDDDD Tables 1 and 2 or 11 through 13, or the operating limits in 40 CFR 63, Subpart DDDDD Table 4. [40 CFR 63.7500(e)]

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

- f. If the permittee is required to meet an applicable tune-up work practice standard, the permittee shall conduct an annual, biennial, or 5-year performance tune-up according to 40 CFR 63.7540(a)(10), (11), or (12), respectively. Each annual tune-up specified in 40 CFR 63.7540(a)(10) shall be no more than 13 months after the previous tune-up. Each biennial tune-up specified in 40 CFR 63.7540(a)(11) shall be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in 40 CFR 63.7540(a)(12) shall be conducted no more than 61 months after the previous tune-up. If the unit is not operating on the required date for a tune-up, the tune-up shall be conducted within 30 calendar days of startup. [40 CFR 63.7515(d) and 63.7540(a)(13)]
- g. The permittee shall conduct a tune-up of the boiler or process heater as specified in 40 CFR 63.7540(a)(10)(i) through (vi) to demonstrate continuous compliance. For Emission Unit 55, the permittee may delay the burner inspection specified in 40 CFR 63.7540(a)(10)(i) until the next scheduled or unscheduled unit shutdown, but the permittee shall inspect each burner at least once every 72 months. [CFR 63.7540(a)(11) and 63.7540(a)(12)]
 - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment; [40 CFR 63.7540(a)(10)(i)]
 - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available; [40 CFR 63.7540(a)(10)(ii)]
 - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. [40 CFR 63.7540(a)(10)(iii)]
 - iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. [40 CFR 63.7540(a)(10)(iv)]
 - v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the 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). Measurements may be taken using a portable CO analyzer; and [40 CFR 63.7540(a)(10)(v)]

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

- vi. Maintain on-site and submit, if requested by the Administrator, a report containing the information in 40 CFR 63.7540(a)(10)(vi)(A) through (C), [40 CFR 63.7540(a)(10)(vi)]
 1. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater; [40 CFR 63.7540(a)(10)(vi)(A)]
 2. A description of any corrective actions taken as part of the tune-up; and [40 CFR 63.7540(a)(10)(vi)(B)]
 3. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may establish the fuel used by each unit. [40 CFR 63.7540(a)(10)(vi)(C)]
- h. During a startup period or shutdown period, the permittee shall comply with the work practice standards established in 401 KAR 59:015, Section 7. An affected facility subject to 40 C.F.R. 63.7500 shall meet the work practice standards established in 40 C.F.R. Part 63, Table 3 to Subpart DDDDD, as established in 401 KAR 63:002, Section 2(4)(iiii). [401 KAR 59:015, Section 7 and 401 KAR 59:015, Section 7(2)(a)]

2. Emissions Limitations:

- a. These units are not subject to the emission limits in 40 CFR 63, Subpart DDDDD Tables 1 and 2 or 11 through 13. [40 CFR 63.7500(e)]
- b. An affected facility shall not cause emissions of particulate matter in excess of 0.10 lb/MMbtu [401 KAR 59:015, Section 4 (1) (b)]
- c. An affected facility shall not cause emissions of particulate matter in excess of twenty percent opacity, except: [401 KAR 59:015, Section 4 (2)]
 - i. A maximum of twenty-seven percent opacity shall be allowed for one six minute period in any sixty consecutive minutes; [401 KAR 59:015, Section 4 (2) (a)]
 - ii. For emissions from an affected facility caused by building a new fire, emissions during the period required to bring the boiler up to operation conditions shall be allowed, is the method used is recommended by the manufacturer and the time does not exceed the manufacturer's recommendations. [401 KAR 59:015, Section 4 (2) (c)]
- d. An affected facility shall not cause emissions of sulfur dioxide in excess of 0.8 lb/MMBtu [401 KAR 59:015, Section 5 (1) (b) 1.]

Compliance Demonstration:

These units are assumed to be in compliance with the applicable 401 KAR 59:015 particulate matter, sulfur dioxide, and opacity standards while burning natural gas. [401 KAR 50:045, Section 4(3)(c)1.]

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

e. See Section D, Source Emission Limitations and Testing Requirements.

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

The permittee shall monitor natural gas usage (MMscf) for Emission Units 55-57, on a monthly basis [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of natural gas usage (MMscf) for each Emission Units 55-57, on a monthly basis [401 KAR 52:030, Section 10].

b. The permittee shall keep a copy of each notification and report submitted to comply with 40 CFR 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report submitted, according to the requirements of 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.7555(a) and 63.7555(a)(1)]

6. Specific Reporting Requirements:

a. The permittee shall report each instance in which an emission limit and operating limit in 40 CFR 63, Subpart DDDDD, Table 3, as applicable, was not met. These instances are deviations from the emission limits or operating limits, respectively, in 40 CFR 63, Subpart DDDDD. These deviations shall be reported according to the requirements in 40 CFR 63.7550. [40 CFR 63.7540(b)]

b. The permittee shall submit the Notification of Compliance Status and shall contain the information specified in 40 CFR 63.7545(e)(1) and (8) and shall be submitted within 60 days of the compliance date specified at 40 CFR 63.7495(b) [40 CFR 63.7545 (e)]

i. A description of the affected units including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with 40 CFR 63, Subpart DDDDD, description of the fuel burned, including whether the fuel was a secondary material determined by the permittee or the EPA through a petition process to be a non-waste under 40 CFR 241.3, whether the fuel was a secondary material processed from discarded non-hazardous secondary material within the meaning of 40 CFR 241.3, and justification for the selection of fuel burned during the compliance demonstration. [40 CFR 63.7545(e)(1)]

ii. In addition to information required in 40 CFR 63.9(h)(2), your notification of compliance status must include the following certifications of compliance, as applicable, and signed by a responsible official: [40 CFR 63.7545(e)(8)]

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

1. “This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR part 63 subpart DDDDD at this site according to the procedures in 40 CFR 63.7540(a)(10)(i) through (vi).” [40 CFR 63.7545(e)(8)(i)]
 2. “This facility has had an energy assessment performed according to 40 CFR 63.7530 (e).” [40 CFR 63.7545(e)(8)(ii)]
- c. The permittee may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in 40 CFR 63.7550(b)(1) through (4): [40 CFR 70.7550(b)]
- i. If submitting an annual, biennial, or 5-year compliance report, the first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495 and ending on December 31 within 1, 2, or 5 years, as applicable, after the compliance date that is specified for the source in 40 CFR 63.7495. [40 CFR 63.7550(b)(1)]
 - ii. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than January 31. [40 CFR 63.7550(b)(2)]
 - iii. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31. [40 CFR 63.7550(b)(3)]
 - iv. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31. [40 CFR 63.7550(b)(4)]
- b. The permittee shall submit a compliance report with the information in 40 CFR 63.7550 (c) (5) (i) through (iii), (xiv), and (xvii): [40 CFR 63.7550(c)(1)]
- i. Company and Facility name and address. [40 CFR 63.7550(c)(5)(i)]
 - ii. Process unit information, emission limitations, and operating parameter limitations. [40 CFR 63.7550(c)(5)(ii)]
 - iii. Date of report and beginning and ending dates of the reporting period. [40 CFR 63.7550(c)(5)(iii)]
 - iv. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to 40 CFR 63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annual, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown [40 CFR 63.7550(c)(5)(xiv)]
 - v. Statement by a responsible official with that official’s name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. [40 CFR 63.7550(c)(5)(xvii)]

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

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

Permit Number: V-17-030 R1**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.

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. Station fuel-oil tanks (2 @ 1,100,000 gallons each)	None
2. #2 Fuel Oil tank Storage & Light-off for Unit 3 (525,000 gallons) installed 1973	None
3. Turbine oil tanks for Unit 3 (2 @ 9,000 gallons each)	None
4. Unleaded gasoline storage tanks	None
5. Turbine oil reservoirs for CT6 & 7 & Unit 3 (3 @ 6,500 gallons)	None
6. Turbine oil reservoirs for CT5, 8, 9, 10, 11 (5 @ 4,000 gallons)	None
7. Burning of Off-Specification Used Oil for Energy Recovery	401 KAR 61:020
8. Kerosene Tank (500 gallons)	None
9. Distillate Oil and/or Propane Coal Belt Heaters	None
10. Limestone Storage Pile	401 KAR 63:010
11. Limestone Reclaim Maintenance Tunnel Exhaust Vent	401 KAR 59:010
12. Sorbent Storage Silos (for SO ₃ mitigation)	401 KAR 59:010
13. Natural Gas Distillate tank (2,000 gallons)	None
14. Diesel Fuel tanks for emergency generators (3 @ 391 gallons)	None
15. Diesel Fuel tank for emergency fire pump (300 gallons)	None
16. Liquid Hg Control Additives	None
17. Diesel Fuel tank for emergency generator (837 gallons)	None
18. Diesel Fuel tanks for emergency fire pumps & FGD building (2 @ 440 gallons)	None
19. Diesel Fuel tanks for emergency fire pumps & FGD building (2 @ 550 gallons)	None
20. Turbine oil reservoirs for Unit 3 feed pump (2 each @ 1,000 gallons)	None
21. Turbine oil reservoir for Unit 3 seal oil (150 gallons)	None
22. Turbine oil reservoir for Unit 3 lube oil (2 @ 400 gallons)	None
23. Lab Fume Hood	None
24. Hydraulic oil, 30W and 40W oil tanks (2 @ 300 and 40W tank 1 @ 560 gallons)	None
25. PAC Storage Silos	401 KAR 59:010
26. Bottom Ash Transport	401 KAR 63:010
27. Fly Ash Transport	401 KAR 63:010
28. Gypsum Transport & Process Water System Solids	401 KAR 63:010
29. Landfill Truck Loading and Unloading & Process Water System Solids	401 KAR 63:010
30. Active Area of the CCR Landfill (Wind Erosion) & Process Water System Solids	401 KAR 63:010

Permit Number: V-17-030 R1**SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)**

31. Slipstream Carbon Dioxide (CO ₂) capture System – Research	401 KAR 63:010
32. Bottom Ash Handling including storage pile (associated with CCR landfill operations)	401 KAR 63:010
33. Fly Ash Handling including load out to trucks (associated with CCR landfill operations)	401 KAR 63:010
34. Fly Ash Filter/Separator Units (2) (associated with CCR landfill operations)	401 KAR 63:010
35. Fly Ash Storage Silos (2) (associated with CCR landfill operations)	401 KAR 63:010, 401 KAR 59:010
36. Gypsum Processing including storage pile & Process Water System Solids (associated with CCR landfill operations)	401 KAR 63:010
37. NG Catalytic Heaters (2 @ 0.0025 MMBtu/hr, 5 @ 0.005 MMBtu/hr)	None
38. Diesel Fuel Tanks for emergency generators (2 @ 900 gallons)	None
39. Diesel Fuel Tanks (500, 2000, 500 gallons)	None

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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 dioxide, VOC, carbon monoxide, and beryllium emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.
3. No owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. The permittee is in compliance with these requirements based on the rates of emissions of airborne toxics provided in the application submitted by the permittee. If the permittee alters processes, process rates, material formulations, or any other factor that would result in increased emissions of airborne toxics, the permittee shall submit the appropriate application forms pursuant to 401 KAR 52:020, Section 3(1)(a). [401 KAR 63:020, Section 3]

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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.

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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].

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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 permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken shall be submitted to the Regional Office listed on the front of this permit. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement does not identify a specific time frame for reporting deviations, prompt reporting, as required by Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, shall be defined as follows:
 - a. For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
 - b. For emissions of any regulated air pollutant, excluding those listed in F.8.a., that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
 - c. All deviations from permit requirements, including those previously reported, shall be included in the semiannual report required by F.6.
9. Pursuant to 401 KAR 52:020, Title V permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - 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.

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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 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
Frankfort Regional Office
300 Sower Blvd, 1st Floor
Frankfort, KY 40601

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St. SW
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.

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SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

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

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SECTION G - GENERAL PROVISIONS (CONTINUED)

- 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) b].
- l. This permit does not convey property rights or exclusive privileges [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 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) d.].
- 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) a.].

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SECTION G - GENERAL PROVISIONS (CONTINUED)

- 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 (V-17-030 R1).

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SECTION G - GENERAL PROVISIONS (CONTINUED)

5. Testing Requirements

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

6. Acid Rain Program Requirements

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

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;

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SECTION G - GENERAL PROVISIONS (CONTINUED)

- (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 224.1-400, 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*.

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SECTION G - GENERAL PROVISIONS (CONTINUED)

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 U.S. EPA using the RMP* eSubmit software. b. If requested, submit additional relevant information to the Division or the U.S. EPA.

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SECTION H - ALTERNATE OPERATING SCENARIOS

N/A

SECTION I - COMPLIANCE SCHEDULE

N/A

Permit Number: V-17-030 R1**SECTION J - ACID RAIN****1. Statutory and Regulatory Authority**

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. Permit Requirements:

This Acid Rain Permit covers Acid Rain Unit 3 (Emission Unit 03) and 5-11 (Emission Units 23-29) at the E.W. Brown plant (ORIS Code: 001355). Unit 3 is a coal-fired based load electric generating unit. Units 5-11 are natural gas- or distillate oil-fired peaking combustion turbines. The Acid Rain Permit Application and NO_x Compliance Plan received on March 1, 2010, for Phase II 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:

(a) 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]:

Unit	Annual SO ₂ Allowances	Emission Limitation (lb/MMBtu)	Annual Average NO _x ACEL (lb/MMBtu)	Annual Heat Input Limit, when complying with ACEL (MMBtu)
3	11,273	0.45	0.45	28,309,000
5	0	N/A	N/A	N/A
6	0	N/A	N/A	N/A
7	0	N/A	N/A	N/A
8	0	N/A	N/A	N/A
9	0	N/A	N/A	N/A
10	0	N/A	N/A	N/A
11	0	N/A	N/A	N/A

(b) 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. [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].

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SECTION J - ACID RAIN PERMIT (CONTINUED)

- (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]
- (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(a).
 - (2) 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.

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SECTION K – CLEAN AIR INTERSTATE RULE (CAIR)

1. Statutory and Regulatory Authority:

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. Permit Requirements:

This CAIR Permit covers CAIR Units 3 and 5-11 (Emission Units 3 and 23-29) at the E.W. Brown plant (ORIS Code: 001355). Unit 3 is a coal-fired based load electric generating unit. Units 5-11 are natural gas- or distillate oil-fired peaking combustion turbines. The CAIR application for ten electrical generating units was submitted to the Division and received on July 3, 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]

3. Compliance Plan:

- (a) The permittee shall operate in compliance with the requirements contained in the CAIR application and incorporated into this permit [40 CFR 96.106, 40 CFR 96.206, 40 CFR 96.306].
- (b) The permittee shall not sell, trade, or transfer any NO_x allowances allocated to Emission Unit 03 that would otherwise be available for sale, trade, or transfer as a result of the actions taken by the permittee to comply with the Consent Decree. The NO_x allowances allocated to Emission Unit 03 (CAIR Unit 3) may be used by the permittee only to meet its own federal and/or state Clean Air Act regulatory requirements for Emission Unit 03. This is a permanent federally enforceable limit. [Consent Decree, Paragraph 12]
- (c) For each calendar year beginning with 2009 and continuing through calendar year 2020, the permittee shall surrender to EPA, or transfer to a non-profit third party, Surplus NO_x Allowances. This is a permanent federally enforceable limit. [Consent Decree, Paragraph 13]
- (d) Nothing shall preclude the permittee from selling or transferring NO_x allowances allocated to Emission Unit 03 (CAIR Unit 3) that become available for sale or trade solely as a result of the achievement and maintenance of a NO_x emission rate below a 30-day rolling average emission rate for NO_x of 0.070 lb/MMBtu [Consent Decree, Paragraph 17].

CSAPR implementation is now in place and replaces requirements under EPA's 2005 Clean Air Interstate Rule.

Permit Number: V-17-030 R1**SECTION L – CROSS-STATE AIR POLLUTION RULE****Description of CSAPR Monitoring Provisions**

The CSAPR subject units, and the unit-specific monitoring provisions at this source, are identified in the following tables. These units are subject to the requirements for the CSAPR NO_x Annual Trading Program, CSAPR NO_x Ozone Season Group 3 Trading Program, and CSAPR SO₂ Group 1 Trading Program

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
Unit ID: Emission Unit 3 (Unit 3)					
SO ₂	X		-----		
NO _x	X	-----			
Heat input	X		-----		
Unit ID: Emission Unit 23 (Unit 9); Emission Unit 24 (Unit 10); Emission Unit 25 (Unit 8); Emission Unit 26 (Unit 11); Emission Unit 27 (Unit 6); Emission Unit 28 (Unit 7); Emission Unit 29 (Unit 5)					
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 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(30) (CSAPR NO_x Annual Trading Program), 40 CFR 97.1030 through 40 CFR 97.1035 (CSAPR NO_x Ozone Season Group 3 Trading Program), and 401 KAR 51:260 Section 3(25) through 401 KAR 51:260, Section 3(30) (CSAPR 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 CSAPR trading programs.

Permit Number: V-17-030 R1**SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR)
(CONTINUED)**

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: <http://www.epa.gov/airmarkets>
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 75, Subpart E, 40 CFR 75.66, 401 KAR 51:240, Section 3(30) (CSAPR NO_x Annual Trading Program), 40 CFR 97.1035 (CSAPR NO_x Ozone Season Group 3 Trading Program), and/or 401 KAR 51:260, Section 3(30) (CSAPR 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/part-75-petition-responses>
4. Owners and operators that want to use an alternative to any monitoring, recordkeeping, or reporting requirements under 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(29) (CSAPR NO_x Annual Trading Program), 40 CFR 97.1030 through 40 CFR 97.1034 (CSAPR NO_x Ozone Season Group 3 Trading Program), and/or 401 KAR 51:260, Section 3(25) through 401 KAR 51:260, Section 3(29) (CSAPR SO₂ Group 1 Trading Program) must submit to the Administrator a petition requesting approval of the alternative in accordance with 401 KAR 51:240, Section 3(30) (CSAPR NO_x Annual Trading Program), 40 CFR 97.1035 (CSAPR SO₂ Group 1 Trading Program), and 401 KAR 51:260, Section 3(30) (CSAPR NO_x Ozone Season Group 3 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 <https://www.epa.gov/airmarkets/data-resources>
5. The descriptions of monitoring applicable to the unit included above meet the requirement of 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(29) (CSAPR NO_x Annual Trading Program), 40 CFR 97.1030 through 40 CFR 97.1034 (CSAPR NO_x Ozone Season Group 3 Trading Program), and 401 KAR 51:260, Section 3(25) through 401 KAR 51:260, Section 3(29) (CSAPR SO₂ Group 1 Trading Program), and therefore minor permit modification procedures, in accordance with 40 CFR 70.7(e)(2)(i)(B), may be used to add or change this unit's monitoring system description.

CSAPR NO_x Annual Trading Program requirements (401 KAR 51:240, Section 3(4))**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 401 KAR 51:240, Section 3(10) through 401 KAR 51:240, Section 3(15).

b) Emissions monitoring, reporting, and recordkeeping requirements.

1. The owners and operators, and the designated representative, of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 401 KAR 51:240, Section 3(25) (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 401 KAR 51:240, Section 3(26) (initial monitoring system certification and recertification procedures), 401 KAR 51:240, Section 3(27) (monitoring system out-of-control periods), 401 KAR 51:240,

Permit Number: V-17-030 R1**SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR)
(CONTINUED)**

Section 3(28) (notifications concerning monitoring), 401 KAR 51:240, Section 3(29) (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 401 KAR 51:240, Section 3(30) (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

2. The emissions data determined in accordance with 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(30) shall be used to calculate allocations of CSAPR NO_x Annual allowances under 401 KAR 51:240, Section 3(8) (40 CFR 97.411(a)(2) and (b)) and 401 KAR 51:240, Section 3(9) and to determine compliance with the CSAPR 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 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(30) 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. CSAPR 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 CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall hold, in the source's compliance account, CSAPR NO_x Annual allowances available for deduction for such control period under 401 KAR 51:240, Section 3(20) (40 CFR 97.424(a)) in an amount not less than the tons of total NO_x emissions for such control period from all CSAPR NO_x Annual units at the source.
 - ii. If total NO_x emissions during a control period in a given year from the CSAPR NO_x Annual units at a CSAPR NO_x Annual source are in excess of the CSAPR NO_x Annual emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - A) The owners and operators of the source and each CSAPR NO_x Annual unit at the source shall hold the CSAPR NO_x Annual allowances required for deduction under 401 KAR 51:240, Section 3(20) (40 CFR 97.424(d)); and
 - B) The owners and operators of the source and each CSAPR 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 401 KAR 51:240 and the Clean Air Act.
2. CSAPR NO_x Annual assurance provisions.
 - i. If total NO_x emissions during a control period in a given year from all CSAPR NO_x Annual units at CSAPR 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) CSAPR NO_x Annual allowances available for deduction for such control period under 401 KAR 51:240, Section 3(21) (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 401 KAR 51:240, Section 3(21) (40 CFR 97.425(b)), of multiplying— (A) The quotient

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(CONTINUED)**

- 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 CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state for such control period exceed the state assurance level.
- ii. The owners and operators shall hold the CSAPR 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 CSAPR NO_x Annual units at CSAPR 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 401 KAR 51:240, Section 3(7)(a)(1) and the state's variability limit under 401 KAR 51:240, Section 3(7)(a)(3).
 - iv. It shall not be a violation of 401 KAR 51:240, or of the Clean Air Act if total NO_x emissions from all CSAPR NO_x Annual units at CSAPR 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 CSAPR NO_x Annual units at CSAPR 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 CSAPR 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 CSAPR 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 401 KAR 51:240, and the Clean Air Act.
3. Compliance periods.
 - i. A CSAPR 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 401 KAR 51:240, Section 3(25) (40 CFR 97.430(b)) and for each control period thereafter.
 - ii. A CSAPR 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 401 KAR 51:240, Section 3(25) (40 CFR 97.430(b)) and for each control period thereafter.
 4. Vintage of allowances held for compliance.
 - i. A CSAPR 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 CSAPR NO_x Annual allowance that was allocated for such control period or a control period in a prior year.

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- ii. A CSAPR 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 CSAPR 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 CSAPR NO_x Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 401 KAR 51:240.
 6. Limited authorization. A CSAPR 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 CSAPR NO_x Annual Trading Program; and
 - ii. Notwithstanding any other provision of 40 CFR 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 CSAPR 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 CSAPR NO_x Annual allowances in accordance with 401 KAR 51:240.
 - 2) This permit incorporates the CSAPR emissions monitoring, recordkeeping, and reporting requirements pursuant to 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(30), and the requirements for a continuous emission monitoring system (pursuant to 40 CFR 75, Subparts B and H), an excepted monitoring system (pursuant to 40 CFR 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 75, Subpart E). Therefore, the Description of CSAPR 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 401 KAR 51:240, Section 3(4) (40 CFR 97.406(d)(2)) and 70.7(e)(2)(i)(B).
- e) Additional recordkeeping and reporting requirements.**
 1. Unless otherwise provided, the owners and operators of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall maintain 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 401 KAR 51:240, Section 3(13) for the designated representative for the source and each CSAPR 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 401 KAR 51:240, Section 3(13) changing the designated representative.
 - ii. All emissions monitoring information, in accordance with 401 KAR 51:240.

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- 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 CSAPR NO_x Annual Trading Program.
 2. The designated representative of a CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall make all submissions required under the CSAPR NO_x Annual Trading Program, except as provided in 401 KAR 51:240, Section 3(15). 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 70.
- f) Liability.**
- 1) Any provision of the CSAPR NO_x Annual Trading Program that applies to a CSAPR NO_x Annual source or the designated representative of a CSAPR NO_x Annual source shall also apply to the owners and operators of such source and of the CSAPR NO_x Annual units at the source.
 - 2) Any provision of the CSAPR NO_x Annual Trading Program that applies to a CSAPR NO_x Annual unit or the designated representative of a CSAPR NO_x Annual unit shall also apply to the owners and operators of such unit.
- g) Effect on other authorities.**
- No provision of the CSAPR NO_x Annual Trading Program or exemption under 401 KAR 51:240, Section 3(3) shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO_x Annual source or CSAPR 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.

CSAPR NO_x Ozone Season Group 3 Trading Program Requirements (40 CFR 97.1006)**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 97.1013 through 40 CFR 97.1018.

b) Emissions monitoring, reporting, and recordkeeping requirements.

1. The owners and operators, and the designated representative, of each CSAPR NO_x Ozone Season Group 3 source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.1030 through 40 CFR 97.1035.
2. The emissions data determined in accordance with 40 CFR 97.1030 through 40 CFR 97.1035 shall be used to calculate allocations of CSAPR NO_x Ozone Season Group 3 allowances under 40 CFR 97.1011(a)(2) and (b) and 40 CFR 97.1012 and to determine compliance with the CSAPR NO_x Ozone Season Group 3 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 97.1030 through 40 CFR 97.1035 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. CSAPR NO_x Ozone Season Group 3 emissions limitation.

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- i. As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO_x Ozone Season Group 3 source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall hold, in the source's compliance account, CSAPR NO_x Ozone Season Group 3 allowances available for deduction for such control period under 40 CFR 97.1024(a) in an amount not less than the tons of total NO_x emissions for such control period from all CSAPR NO_x Ozone Season Group 3 units at the source.
 - ii. If total NO_x emissions during a control period in a given year from the CSAPR NO_x Ozone Season Group 3 units at a CSAPR NO_x Ozone Season Group 3 source are in excess of the CSAPR NO_x Ozone Season Group 3 emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - A) The owners and operators of the source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall hold the CSAPR NO_x Ozone Season Group 3 allowances required for deduction under 40 CFR 97.1024(d); and
 - B) The owners and operators of the source and each CSAPR NO_x Ozone Season Group 3 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 97, Subpart GGGGG, and the Clean Air Act.
2. CSAPR NO_x Ozone Season Group 3 assurance provisions.
 - i. If total NO_x emissions during a control period in a given year from all base CSAPR NO_x Ozone Season Group 3 units at CSAPR NO_x Ozone Season Group 3 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) CSAPR NO_x Ozone Season Group 3 allowances available for deduction for such control period under 40 CFR 97.1025(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 97.1025(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 base CSAPR NO_x Ozone Season Group 3 units at base CSAPR NO_x Ozone Season Group 3 sources in the state for such control period exceed the state assurance level.
 - ii. The owners and operators shall hold the CSAPR NO_x Ozone Season Group 3 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 the year of such control period.

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- iii. Total NO_x emissions from all CSAPR NO_x Ozone Season Group 3 units at CSAPR NO_x Ozone Season Group 3 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 Group 3 trading budget under 40 CFR 97.1010(a), the state's variability limit under 40 CFR 97.1010(b), and, for the control period in 2021 only, the product (rounded to the nearest allowance) of 1.21 multiplied by the supplemental amount of CSAPR NO_x Ozone Season Group 3 allowances determined for the state under 40 CFR 97.1010(d).
 - iv. It shall not be a violation of 40 CFR 97, Subpart GGGGG, or of the Clean Air Act if total NO_x emissions from all base CSAPR NO_x Ozone Season Group 3 units at base CSAPR NO_x Ozone Season Group 3 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 base CSAPR NO_x Ozone Season Group 3 units at base CSAPR NO_x Ozone Season Group 3 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 CSAPR NO_x Ozone Season Group 3 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 CSAPR NO_x Ozone Season Group 3 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 97, Subpart GGGGG and the Clean Air Act.
3. Compliance periods.
- i. A CSAPR NO_x Ozone Season Group 3 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of May 1, 2021 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.1030(b) and for each control period thereafter.
 - ii. A base CSAPR NO_x Ozone Season Group 3 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2021 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.1030(b) and for each control period thereafter.
4. Vintage of CSAPR NO_x Ozone Season Group 3 allowances held for compliance.
- i. A CSAPR NO_x Ozone Season Group 3 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year shall be a CSAPR NO_x Ozone Season Group 3 allowance that was allocated or auctioned for such control period or a control period in a prior year.
 - ii. A CSAPR NO_x Ozone Season Group 3 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 CSAPR NO_x Ozone Season Group 3 allowance that was allocated or auctioned 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 CSAPR NO_x Ozone Season Group 3 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR 97, Subpart GGGGG.

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6. Limited authorization. A CSAPR NO_x Ozone Season Group 3 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 CSAPR NO_x Ozone Season Group 3 Trading Program; and
 - ii. Notwithstanding any other provision of 40 CFR 97, Subpart GGGGG, 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 CSAPR NO_x Ozone Season Group 3 allowance does not constitute a property right.

d) Title V permit requirements.

1. No Title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_x Ozone Season Group 3 allowances in accordance with 40 CFR 97, Subpart GGGGG.
2. A description of whether a unit is required to monitor and report NO_x emissions using a continuous emission monitoring system (pursuant to 40 CFR 75, Subpart H), an excepted monitoring system (pursuant to 40 CFR 75, Appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), or an alternative monitoring system (pursuant to 40 CFR 75, Subpart E) in accordance with 40 CFR 97.1030 through 40 CFR 97.1035 may be added to, or changed in, this Title V permit using minor permit modification procedures in accordance with 40 CFR 70.7(e)(2) and 40 CFR 71.7(e)(1), provided that the requirements applicable to the described monitoring and reporting (as added or changed, respectively) are already incorporated in such permit. This paragraph explicitly provides that the addition of, or change to, a unit's description as described in the prior sentence is eligible for minor permit modification procedures in accordance with 40 CFR 70.7(e)(2)(i)(B) and 40 CFR 71.7(e)(1)(i)(B).

e) Additional recordkeeping and reporting requirements.

1. Unless otherwise provided, the owners and operators of each CSAPR NO_x Ozone Season Group 3 source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall maintain 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 97.1016 for the designated representative for the source and each CSAPR NO_x Ozone Season Group 3 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 97.1016 changing the designated representative.
 - ii. All emissions monitoring information, in accordance with 40 CFR 97, Subpart GGGGG.
 - 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 CSAPR NO_x Ozone Season Group 3 Trading Program.

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2. The designated representative of a CSAPR NO_x Ozone Season Group 3 source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall make all submissions required under the CSAPR NO_x Ozone Season Group 3 Trading Program, except as provided in 40 CFR 97.1018. 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 CSAPR NO_x Ozone Season Group 3 Trading Program that applies to a CSAPR NO_x Ozone Season Group 3 source or the designated representative of a CSAPR NO_x Ozone Season Group 3 source shall also apply to the owners and operators of such source and of the CSAPR NO_x Ozone Season Group 3 units at the source.
2. Any provision of the CSAPR NO_x Ozone Season Group 3 Trading Program that applies to a CSAPR NO_x Ozone Season Group 3 unit or the designated representative of a CSAPR NO_x Ozone Season Group 3 unit shall also apply to the owners and operators of such unit.

g) Effect on other authorities.

No provision of the CSAPR NO_x Ozone Season Group 3 Trading Program or exemption under 40 CFR 97.1005 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO_x Ozone Season Group 3 source or CSAPR NO_x Ozone Season Group 3 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

CSAPR SO₂ Group 1 Trading Program requirements (401 KAR 51:260, Section 3(4))

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 401 KAR 51:260, Section 3(10) through 401 KAR 51:260, Section 3(15).

b) Emissions monitoring, reporting, and recordkeeping requirements.

1. The owners and operators, and the designated representative, of each CSAPR SO₂ Group 1 source and each CSAPR SO₂ Group 1 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 401 KAR 51:260, Section 3(25) (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 401 KAR 51:260, Section 3(26) (initial monitoring system certification and recertification procedures), 401 KAR 51:260, Section 3(27) (monitoring system out-of-control periods), 401 KAR 51:260, Section 3(28) (notifications concerning monitoring), 401 KAR 51:260, Section 3(29) (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 401 KAR 51:260, Section 3(30) (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
2. The emissions data determined in accordance with 401 KAR 51:260, Section 3(25) through 401 KAR 51:260, Section 3(30) shall be used to calculate allocations of CSAPR SO₂ Group 1 allowances under 401 KAR 51:260, Section 3(8) (40 CFR 97.611(a)(2)) and (b)) and 401 KAR 51:260, Section 3(9) and to determine compliance with the CSAPR 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 401

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KAR 51:260, Section 3(25) through 401 KAR 51:260, Section 3(30) 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. CSAPR 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 CSAPR SO₂ Group 1 source and each CSAPR SO₂ Group 1 unit at the source shall hold, in the source's compliance account, CSAPR SO₂ Group 1 allowances available for deduction for such control period under 401 KAR 51:260, Section 3(20) (40 CFR 97.624(a)) in an amount not less than the tons of total SO₂ emissions for such control period from all CSAPR SO₂ Group 1 units at the source.
 - ii. If total SO₂ emissions during a control period in a given year from the CSAPR SO₂ Group 1 units at a CSAPR SO₂ Group 1 source are in excess of the CSAPR SO₂ Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - A) The owners and operators of the source and each CSAPR SO₂ Group 1 unit at the source shall hold the CSAPR SO₂ Group 1 allowances required for deduction under 401 KAR 51:260, Section 3(20) (40 CFR 97.624(d)); and
 - B) The owners and operators of the source and each CSAPR 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 401 KAR 51:260, and the Clean Air Act.
2. CSAPR SO₂ Group 1 assurance provisions.
 - i. If total SO₂ emissions during a control period in a given year from all CSAPR SO₂ Group 1 units at CSAPR 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) CSAPR SO₂ Group 1 allowances available for deduction for such control period under 401 KAR 51:260, Section 3(21) (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 401 KAR 51:260, Section 3(21) (40 CFR 97.625(b)), of multiplying—
 - A) The quotient of the amount by which the common designated representative's share of such SO₂ emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such SO₂ emissions exceeds the respective common designated representative's assurance level; and
 - B) The amount by which total SO₂ emissions from all CSAPR SO₂ Group 1 units at CSAPR SO₂ Group 1 sources in the state for such control period exceed the state assurance level.
 - ii. The owners and operators shall hold the CSAPR SO₂ Group 1 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day),

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- 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 CSAPR SO₂ Group 1 units at CSAPR 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 401 KAR 51:260, Section 3(7)(a)(1) and the state's variability limit under 401 KAR 51:260, Section 3(7)(a)(3).
 - iv. It shall not be a violation of 401 KAR 51:260, or of the Clean Air Act if total SO₂ emissions from all CSAPR SO₂ Group 1 units at CSAPR 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 CSAPR SO₂ Group 1 units at CSAPR 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 CSAPR 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 CSAPR 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 401 KAR 51:260, and the Clean Air Act.
3. Compliance periods.
- i. A CSAPR 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 401 KAR 51:260, Section 3(25) (40 CFR 97.630(b)) and for each control period thereafter.
 - ii. A CSAPR 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 401 KAR 51:260, Section 3(25) (40 CFR 97.630(b)) and for each control period thereafter.
4. Vintage of allowances held for compliance.
- i. A CSAPR 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 CSAPR SO₂ Group 1 allowance that was allocated for such control period or a control period in a prior year.
 - ii. A CSAPR 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 CSAPR 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 CSAPR SO₂ Group 1 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 401 KAR 51:260.

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6. Limited authorization. CSAPR 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 CSAPR SO₂ Group 1 Trading Program; and
 - ii. Notwithstanding any other provision of 401 KAR 51:260, 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. CSAPR 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 CSAPR SO₂ Group 1 allowances in accordance with 401 KAR 51:260.
2. This permit incorporates the CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 401 KAR 51:260, Section 3(25) through 401 KAR 51:260, Section 3(30), and the requirements for a continuous emission monitoring system (pursuant to 40 CFR 75, Subparts B and H), an excepted monitoring system (pursuant to 40 CFR 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 75, Subpart E). Therefore, the Description of CSAPR 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 401 KAR 51:260, Section 3(4) (40 CFR 97.606(d)(2)) and 70.7(e)(2)(i)(B).

e) Additional recordkeeping and reporting requirements.

1. Unless otherwise provided, the owners and operators of each CSAPR SO₂ Group 1 source and each CSAPR SO₂ Group 1 unit at the source shall maintain 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 401 KAR 51:260, Section 3(13) for the designated representative for the source and each CSAPR 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 401 KAR 51:260.
 - (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 CSAPR SO₂ Group 1 Trading Program.
2. The designated representative of a CSAPR SO₂ Group 1 source and each CSAPR SO₂ Group 1 unit at the source shall make all submissions required under the CSAPR SO₂ Group 1 Trading Program, except as provided in 401 KAR 51:260, Section 3(15). 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 70.

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

f) Liability.

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

g) Effect on other authorities.

No provision of the CSAPR SO₂ Group 1 Trading Program or exemption under 401 KAR 51:260, Section 3(3) shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR SO₂ Group 1 source or CSAPR 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.