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

Draft

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:	**P.O. Box 32010** **Louisville, KY 40232**
Source Location:	**815 Dix Dam Rd.** **Harrodsburg, KY 40330**
Permit ID:	**V-26-036**
Agency Interest #:	**3148**
Activity ID:	**APE20230005 / APE20250001**
Review Type:	**Title V / PSD, Construction / 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:	**May 26, 2025**
Issuance Date:	
Expiration Date:	

For Michael J. Kennedy, P.E.
Director
Division for Air Quality

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Permit	Permit Type	Activity#	Complete Date	Issuance Date	Summary of Action
V-26-036	Renewal	APE20230005	2/6/2024		Renewal
	Significant Revision	APE20250001	5/26/2025		PSD Natural Gas-Fired Combined Cycle Project adding EUs 58-70

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.

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

Emission Unit 3 Indirect Heat Exchanger

Emission Unit	Description	Construction Commenced	Maximum Continuous Rating	Fuel	Controls (Installation Date)
3	Pulverized coal- dry bottom-tangentially-fired indirect heat exchanger	July 19, 1971	5,300 MMBtu/hr (464 MW)	Coal & No. 2 Fuel Oil for startup and stabilization	Pulse Jet Fabric Filter (2015); Low NO_x Burners (1992); Wet Flue Gas Desulfurization required by CD (2010); Selective Catalytic Reduction required by CD (2012); Dry Sorbent Injection (DSI) for sulfuric acid mist (SAM) control (2013); DSI using powdered activated carbon (2015); & Liquid Additives for mercury (Hg) control (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 SO_2 trading program* (See **Section K**)

401 KAR 51:240, codifying **40 C.F.R. 97.401 through 97.435, Subpart AAAAA**, *Cross-State Air Pollution Rule (CSAPR) NO_x annual trading program* (See **Section L**)

401 KAR 51:250, codifying **40 C.F.R. 97.801 through 97.835, Subpart EEEEE**, *Cross-State Air Pollution Rule (CSAPR) NO_x ozone season group 2 trading program* (See **Section L**)

401 KAR 51:260, codifying **40 C.F.R. 97.601 through 97.635, Subpart CCCCC**, *Cross-State Air Pollution Rule (CSAPR) SO_2 group 1 trading program* (See **Section L**)

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)(yyyy), 40 C.F.R. 63.9980 through 63.10042, Tables 1 through 9, and Appendices A through E **(Subpart UUUUU)**, *National Emission Standards for Hazardous Air Pollutants, Coal- and Oil-Fired Electric Utility Steam Generating Units*

40 CFR Part 64, *Compliance Assurance Monitoring* for PM and SAM

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" or "CD").

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]

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

Compliance Demonstration Method:
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. See **4. Specific Monitoring Requirements** f. and g. and **5. Specific Recordkeeping Requirements** b. and c.

b. During a startup period or a shutdown period, the permittee shall comply with the work practice standards established in Table 3 to 40 CFR 63, Subpart UUUUU. [401 KAR 61:015, Section 9(2)(b)]

c. 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, 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)]

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. in Table 3 to 40 CFR 63, Subpart UUUUU, 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)]
      A. 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)]

      B. 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)]

SECTION B - EMISSION POINTS, EMISSION UNITS, 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 O_2 probes and/or sensors, adjusting overfire air systems, changing software parameters, and calibrating associated actuators and dampers to ensure that the systems are operated as designed. Any component out of calibration, in or near failure, or in a state that is likely to negate combustion optimization efforts prior to the next tune-up, should be corrected or repaired as necessary. [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 O_2 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)]

Compliance Demonstration Method:
Compliance shall be demonstrated according to **4. Specific Monitoring Requirements** p. and **6. Specific Reporting Requirements** g.

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

e. 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 scrubbers 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). [40 CFR 63.9991(a)(1) and 40 CFR 63.10000(a) referencing Item 3.a. in Table 3 to 40 CFR 63, Subpart UUUUU]

i. 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. [Item 3.c. in Table 3 to 40 CFR 63, Subpart UUUUU]

ii. 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 63.10021(h) and 63.10032. The permittee shall provide reports concerning activities and startup periods, as specified in 40 CFR 63.10011(g), 63.10021(i), and 63.10031. [Item 3.d. in Table 3 to 40 CFR 63, Subpart UUUUU]

iii. The permittee may not use paragraph (2) of the definition of startup in 40 CFR 63.10042. [Item 3.d. in Table 3 to 40 CFR 63, Subpart UUUUU]

Compliance Demonstration Method:
Compliance shall be demonstrated according to **4. Specific Monitoring Requirements** k. and q. and **5. Specific Recordkeeping Requirements** u.

f. The permittee shall operate all CMS during shutdown. Shutdown means the period in which cessation of operation of an EGU is initiated for any purpose. Shutdown begins when the EGU no longer generates electricity or makes useful thermal energy (such as heat or steam) for industrial, commercial, heating, or cooling purposes or when no coal, liquid oil, syngas, or solid oil-derived fuel is being fired in the EGU, whichever is earlier. Shutdown ends when the EGU no longer generates electricity or makes useful thermal energy (such as steam or heat) for industrial, commercial, heating, or cooling purposes, and no fuel is being fired in the EGU. Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown. The permittee shall also collect appropriate data and shall calculate the pollutant emission rate for each hour of shutdown for those pollutants for which a CMS is used. [40 CFR 63.10000(a); 40 CFR 63.100442 definition of "Shutdown"; 40 CFR 63, Subpart UUUUU, Table 3, Item 4.]

SECTION B - EMISSION POINTS, EMISSION UNITS, 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. [40 CFR 63.10000(a), referencing 40 CFR 63, Subpart UUUUU, Table 3, Item 4.]

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

iii. 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 Method:
Compliance shall be demonstrated according to **4. Specific Monitoring Requirements** k. and q. and **5. Specific Recordkeeping Requirements** u.

g. 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. The permittee shall not cause emissions of particulate matter (PM) in excess of 0.157 lb/MMBtu. [401 KAR 61:015, Section 4(1)(a) and 4(2)]

Compliance Demonstration Method:
Compliance with the consent decree limit in **2. Emission Limitations** c. shall constitute compliance with this limit. See also **4. Specific Monitoring Requirements** n.

b. The permittee shall not cause emissions of PM in excess of 40 percent opacity except: [401 KAR 61:015, Section 4(1)(c)]

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

i. A maximum of 60 percent opacity shall be permissible for not more than one six-minute period in any sixty consecutive minutes; and [401 KAR 61:015, Section 4(1)(c)1.]

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(1)(c)3.]

Compliance Demonstration Method:
To demonstrate compliance with this requirement the permittee shall monitor and maintain records of the opacity according to **4. Specific Monitoring Requirements** a., and **5. Specific Recordkeeping Requirements** a.

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 30]

Compliance Demonstration Method:
Compliance with this requirement shall be demonstrated by an annual stack test in accordance with **3. Testing Requirements** a. This is a permanent federally-enforceable limit. [Consent Decree, Paragraph 30] See **6. Specific Reporting Requirements** b. and c.

d. The permittee shall not cause emissions of gases that contain sulfur dioxide (SO_2) in excess of 5.15 lb/MMBtu based on a 24-hour average. [401 KAR 53:010 and 401 KAR 61:015, Section 5(1) referencing Appendix B to 401 KAR 61:015]

Compliance Demonstration Method:
To demonstrate compliance with this requirement the permittee shall use SO_2 CEMS. Compliance with the 5.15 lb/MMBtu limit, based on a 24-hour average, assures compliance with the SO_2 limit in 401 KAR 61:015. See **4. Specific Monitoring Requirements** b., f., and j.

e. Annually on a calendar year basis, the permittee shall not exceed a Unit Annual SO_2 Tonnage Limitation of 2,300 tons of SO_2 per calendar year. This is a permanent federally-enforceable limit. [Consent Decree, Paragraph 22]

Compliance Demonstration Method:
To demonstrate compliance with this requirement the permittee shall use a SO_2 CEMS in accordance with the reference methods in 40 CFR Part 75. The permittee shall not use SO_2 allowances to comply with this limit. [Consent Decree, Paragraph 24] See **4. Specific Monitoring Requirements** c., **5. Specific Recordkeeping Requirements** e.

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 SO_2 of no greater than 0.100 lb/MMBtu or a **30-day Rolling Average SO_2 Removal Efficiency** of not lower than 97%. This is a permanent federally-enforceable limit. [Consent Decree, Paragraph 20]

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

Compliance Demonstration Method:

To demonstrate compliance with this requirement the permittee shall use SO_2 CEMS, in accordance with those reference methods specified in 40 CFR Part 75. Inlet pounds of SO_2 will be calculated as described in the definition of "30-Day Rolling Average SO_2 Removal Efficiency" (from the CD). The permittee shall not use SO_2 allowances to comply with this limit. [Consent Decree, Paragraphs 23 and 24] See **4. Specific Monitoring Requirements** d., **5. Specific Recordkeeping Requirements** f., and **6. Specific Reporting Requirements** a. and b.

g. The permittee shall commence continuous operation of the SCR so as to achieve and thereafter maintain a **30-day Rolling Average Emission Rate** of no greater than 0.070 lb/MMBtu, except as otherwise provided herein. During any 30-day period used to calculate a 30-Day Rolling Average Emission Rate for NO_x, if the dispatch of the emission unit requires the 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 permittee shall achieve and maintain a **30-day Rolling Average Emission Rate** for NO_x of no greater than 0.080 lb/MMBtu. [Consent Decree, Paragraphs 6 and 7]

Compliance Demonstration Method:

To demonstrate compliance with this requirement, the permittee shall use NO_x CEMS in accordance with the reference methods in 40 CFR Part 75, except that NO_x emissions data need not be bias-adjusted. [Consent Decree, Paragraph 10] The calculations to demonstrate compliance with the 0.070 lb/MMBtu NO_x limit does not include dispatch events (i.e., startup, shutdown, and/or load ramping). However, the calculations to demonstrate compliance with the 0.080 lb/MMBtu NO_x limit does include dispatch events. The permittee shall use SCR operational data, as required by **5. Specific Recordkeeping Requirements** g., 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. See also **4. Specific Monitoring Requirements** b. and e., **5. Specific Recordkeeping Requirements** g., and **6. Specific Reporting Requirements** b. and c.

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 Method:

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/10^3 gallons, where S is the monthly average weight percent of sulfur in the fuel oil.

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

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** b. or c.

III. See also **4. Specific Monitoring Requirements** o., **5. Specific Recordkeeping Requirements** j. and k., and **6. Specific Reporting Requirements** d. and f.

i. Emissions from Emission Unit 3 shall not exceed the limitations in the table below. [40 CFR 63.9991(a)(1) referencing Item 1. in Table 2 to 40 CFR 63, Subpart UUUUU]

Pollutant	Emission Limit	Compliance Demonstration Method
Filterable PM	0.030 lb/MMBtu **OR** 0.30 lb/MWh (Gross)	Quarterly stack testing **OR** PM CEMS [Item 1 in Table 5 and Items 1 and 4 in Table 7 to 40 CFR 63, Subpart UUUUU; 40 CFR 63.10006(a); 40 CFR 63.10010(i)]
OR		
Total non-Hg HAP Metals	0.000050 lb/MMBtu **OR** 0.50 lb/GWh	Quarterly stack testing [Item 2 in Table 5 to 40 CFR 63, Subpart UUUUU]
OR		
All of these: Antimony (Sb)	0.80 lb/TBtu **OR** 0.0080 lb/GWh	Quarterly stack testing for each [Item 2 in Table 5 to 40 CFR 63, Subpart UUUUU
Arsenic (As)	1.1 lb/TBtu **OR** 0.020 lb/GWh	
Beryllium (Be)	0.20 lb/TBtu **OR** 0.0020 lb/GWh	
Cadmium (Cd)	0.30 lb/TBtu **OR** 0.0030 lb/GWh	

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

Pollutant	Emission Limit	Compliance Demonstration Method
Chromium (Cr)	2.8 lb/TBtu **OR** 0.030 lb/GWh	
Cobalt (Co)	0.80 lb/TBtu **OR** 0.0080 lb/GWh	
Lead (Pb)	1.2 lb/TBtu **OR** 0.020 lb/GWh	
Manganese (Mn)	4.0 lb/TBtu **OR** 0.050 lb/GWh	
Nickel (Ni)	3.5 lb/TBtu **OR** 0.040 lb/GWh	
Selenium (Se)	5.0 lb/TBtu **OR** 0.060 lb/GWh	
AND		
HCl	0.0020 lb/MMBtu **OR** 0.020 lb/MWh	Quarterly stack testing **OR** HCl/HF CEMS [Item 3 in Table 5 and Items 1 and 4 in Table 7 to 40 CFR 63, Subpart UUUUU; 40 CFR 63.10010(e)]
OR		
SO_2	0.20 lb/MMBtu **OR** 1.5 lb/MWh	SO_2 CEMS [Item 5 in Table 5 and Item 1 in Table 7 to 40 CFR 63, Subpart UUUUU and 40 CFR 63.10010(f)]
AND		
Hg	1.2 lb/TBtu, **OR** 0.013 lb/GWh	LEE Testing for 30 days with a sampling period consistent with that given in Section 5.2.1 of Appendix A to 40 CFR 63, Subpart UUUUU per Method 30B at Appendix A-8 to part 60 run **OR** Hg CEMS **OR** Sorbent Trap Monitoring [Item 4 in Table 5 and Items 1 and 4 in Table 7 to 40 CFR 63, Subpart UUUUU]

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

Pollutant	Emission Limit	Compliance Demonstration Method
	OR	
	1.0 lb/TBtu OR 0.011 lb/GWh	LEE Testing for 90 days with a sampling period consistent with that given in Section 5.2.1 of Appendix A to 40 CFR 63, Subpart UUUUU per Method 30B at Appendix A-8 to part 60 run **OR** Hg CEMS **OR** Sorbent Trap Monitoring system only [Item 4 in Table 5 and Items 1 and 4 in Table 7 to 40 CFR 63, Subpart UUUUU]

3. Testing Requirements:

a. The permittee shall conduct a stack test for PM on the stack servicing Emission Unit 3 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, Paragraphs 31 and 32; and 401 KAR 50:055]

b. The permittee shall conduct annual performance tests (at least 180 days apart), operating under the conditions established for **4. Specific Monitoring Requirements** o., to determine the SAM emission factor. [401 KAR 50:055]

c. 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** o. 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 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)]

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

d. 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** c. 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]

e. 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)]

f. 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 must conduct all applicable periodic emissions tests for filterable PM, individual, or total HAP metals emissions 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)]

g. 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 SO_2 CEMS to monitor compliance with the alternate equivalent SO_2 emission limit, the permittee must 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)]

h. Time between performance tests performed for 40 CFR 63, Subpart UUUUU. [40 CFR 63.10006(f)]

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

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 must complete performance tests for the EGU as follows: [40 CFR 63.10006(f)(1)]

A. At least 45 calendar days, measured from the test's end date, must separate performance tests conducted every quarter; [40 CFR 63.10006(f)(1)(i)]

B. For annual testing: [40 CFR 63.10006(f)(1)(ii)]

1. At least 320 calendar days, measured from the test's end date, must separate performance tests; [40 CFR 63.10006(f)(1)(ii)(A)]

2. At least 320 calendar days, measured from the test's end date, must separate annual sorbent trap mercury testing for 30-boiler operating day LEE tests; [40 CFR 63.10006(f)(1)(ii)(B)]

3. At least 230 calendar days, measured from the test's end date, must separate annual sorbent trap mercury testing for 90-boiler operating day LEE tests; and [40 CFR 63.10006(f)(1)(ii)(C)]

C. At least 1,050 calendar days, measured from the test's end date, must 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 must 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)]

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 must complete an additional performance test in that period as follows: [40 CFR 63.10006(f)(3)]

A. At least 15 calendar days must separate two performance tests conducted in the same quarter. [40 CFR 63.10006(f)(3)(i)]

B. At least 107 calendar days must separate two performance tests conducted in the same calendar year. [40 CFR 63.10006(f)(3)(ii)]

C. At least 350 calendar days must separate two performance tests conducted in the same 3-year period. [40 CFR 63.10006(f)(3)(iii)]

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

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. The monitoring shall be performed while Emission Unit 3 is in operation. [401 KAR 50:055, Section 2(3) and 401 KAR 52:020, Section 10]

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

b. Continuous emission monitoring systems (CEMS) shall be installed, calibrated, maintained, and operated for measuring PM emissions, SO_2 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]

c. The permittee shall monitor SO_2 emissions (in tons) on a monthly basis. [401 KAR 52:020, Section 10]

d. The permittee shall monitor the daily average SO_2 emission rate (in lb/MMBtu) and the daily average SO_2 removal efficiency (in %). [401 KAR 52:020, Section 10]

e. The permittee shall monitor the daily average NO_x emission rate (in lb/MMBtu). [401 KAR 52:020, Section 10]

f. The permittee shall monitor the amount and rate each fuel burned (coal in tons and fuel oil in gallons), the average electrical output, and the minimum and maximum hourly generation rate on a daily basis. [401 KAR 61:015, Section 6(3)]

g. 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)]

h. The permittee shall determine the sulfur content of fuel oil used during startup based on fuel supplier certification or a fuel contract and determine a monthly average. [401 KAR 52:020, Section 10]

i. 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)]

j. To demonstrate compliance with the SO_2 emission limits, if any 24-hour average SO_2 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]

k. The permittee shall monitor and record the date, time, and duration for each startup and shutdown event. [401 KAR 52:020, Section 10]

l. The permittee shall monitor the SCR inlet temperature and record the hourly average temperature. [401 KAR 52:020, Section 10]

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

m. The permittee shall monitor the wet FGD pump amps and pH and record the hourly averages. [401 KAR 52:020, Section 10]

n. 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.

o. To ensure 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 ± 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 SO_2 inlet) that will be used to monitor the SAM control device operating parameters established by **3. Testing Requirements** c. or d.

   ii. Install, calibrate, and operate SO_2 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 SO_2 removal efficiency for the emission unit. The data shall be averaged to determine the average SO_2 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** c. or d. An excursion shall be any hourly average that is outside the indicator range established during the performance test.

   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** c. or d. are an indicator of the SAM emission control levels. [40 CFR 64.6(c)]

p. 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.

q. 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)]

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

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 required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments, and any scheduled maintenance as defined in the site-specific monitoring plan. 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 associate control system. [40 CFR 63.10020(c)]

iii. 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 excluding zero and span checks must be reported as time the monitor was inoperative (downtime) under 63.10(c). Failure to collect required quality-assured data during monitoring system malfunctions, monitoring system out-of-control periods, or repairs associated with monitoring system malfunctions or monitoring system out-of-control periods is a deviation from the monitoring system requirements. [40 CFR 63.10020(d)]

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

a. The permittee shall maintain a log of the U.S. EPA Reference Method 9 readings taken, including the date, time, and initials of observer. [401 KAR 52:020, Section 10]

b. 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]

c. The permittee shall maintain records of the amount and rate each fuel is burned (coal in tons and fuel oil in gallons), the average electrical output, and the minimum and maximum hourly generation rate on a daily basis. [401 KAR 52:020, Section 10]

d. The permittee shall maintain records of the data collected by the continuous monitoring systems, including data necessary to convert monitoring data to units of the applicable standard. [401 KAR 52:020, Section 10 and 40 CFR 64.6(c)]

e. The permittee shall maintain records of the SO_2 emissions (in tons) on a monthly and calendar year basis. [401 KAR 52:020, Section 10]

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

f. The permittee shall maintain records of the daily and 30-day rolling average SO_2 emission rate (in lb/MMBtu) and the daily and 30-day rolling average SO_2 removal efficiency (in %). [401 KAR 52:020, Section 10]

g. The permittee shall maintain records of the daily and 30-day rolling average NO_x emission rate. [401 KAR 52:020, Section 10]

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

i. 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]

j. The permittee shall maintain records of the SCR, wet FGD, and PJFF operating parameters required to be monitored by **4. Specific Monitoring Requirements** l. and m. and **7. Specific Control Equipment Requirements** b. [401 KAR 52:020, Section 10]

k. 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)]

l. The permittee shall maintain records of the causes and corrective actions taken associated with any exceedance or excursion identified in **4. Specific Monitoring Requirements** n. and o. [40 CFR 64.6(c)]

m. If 5 percent or more of a unit's operating hours in a calendar quarter report PM exceedances or SAM excursions in accordance with the compliance assurance monitoring in **4. Specific Monitoring Requirements** n. and o., then the permittee shall develop and maintain a quality improvement plan (QIP) according to 40 CFR 64.8. [40 CFR 64.6(c)]

n. 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)]
   i. The concentrations of CO and NO_x in the effluent stream in ppm by volume, and oxygen in volume percent, measured before and after an adjustment of the EGU combustion systems. [40 CFR 63.10021(e)(8)(i)]

   ii. A description of any corrective actions taken as a part of the combustion adjustment. [40 CFR 63.10021(e)(8)(ii)]

   iii. 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)]

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

o. The permittee must 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 and/or PM emissions, or if the permittee elects to use a PM CPMS keep the records required under 40 CFR 63, Subpart UUUUU, Appendix A and/or Appendix B and/or Appendix C and/or Appendix D. If the permittee elects to conduct periodic (e.g., quarterly or annual) performance stack tests, then, for each test completed on or after January 1, 2024, the permittee must keep records of the applicable data elements under 40 CFR 63.7(g). The permittee must also keep records of all data elements and other information in Appendix E to 40 CFR 63, Subpart UUUUU that apply to the compliance strategy. [40 CFR 63.10032(a)]
   i. In accordance with 40 CFR 63.10(b)(2)(xiv), a copy of each notification or report submitted to comply with 40 CFR 63, Subpart UUUUU. The permittee must also keep records of all supporting documentation for the Initial Notifications of Compliance Status, semiannual compliance reports, or quarterly compliance reports submitted. [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)]

p. For each CEMS and CPMS used for 40 CFR 63, Subpart UUUUU, the permittee must keep records according to 40 CFR 63.10032(b)(1) through (4). [40 CFR 63.10032(b)]
   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)]

q. The permittee must keep the records required in Table 7 to 40 CFR 63, Subpart UUUUU. [40 CFR 63.10032(c)]

r. The permittee must also keep the records in 40 CFR 63.10032(d)(1) through (3). [40 CFR 63.10032(d)]
   i. Records of monthly fuel use, including the type(s) of fuel and amount(s) used. [40 CFR 63.10032(d)(1)]

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

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 must 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 must 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 must 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 must 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)]

s. The permittee must keep records of the occurrence and duration of each startup or shutdown. [40 CFR 63.10032(f) and (f)(1)]

t. The permittee must 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)]

u. The permittee must 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)]

v. The permittee must keep records of the type(s) and amount(s) of fuel used during each startup or shutdown. [40 CFR 63.10032(i)]

w. Records kept for 40 CFR 63, Subpart UUUUU must 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 must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee must 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. <u>Specific Reporting Requirements</u>:

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)]

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

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 gaseous measurements, the summary shall consist of hourly averages expressed in the units of the applicable standard;

iii. 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;

iv. Report in the semi-annual reports deviations or a negative declaration of exceedances of the SO_2 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 SO_2 removal efficiency limit;

v. 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;

vi. 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

vii. 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:
   A. All information reported in the quarterly summaries; and

   B. 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** o.:
   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

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

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]

e. The permittee shall report the tune-up date electronically in the quarterly compliance report, in accordance with 40 CFR 63.10031(g) and section 10.2 of Appendix E to 40 CFR 63, Subpart UUUUU. The tune-up report date is the date when tune-up requirements in 40 CFR 63.10021(e)(6) and (7) are completed. [40 CFR 63.10021(e)(9)]

f. The permittee must report each instance in which the permittee did not meet an applicable emission limit or operating limit in Tables 1 through 4 to 40 CFR 63, Subpart UUUUU or failed to conduct a required tune-up. These instances are deviations from the requirements of 40 CFR 63, Subpart UUUUU. These deviations must be reported according to 40 CFR 63.10031. [40 CFR 63.10021(g)]

g. The permittee must submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply by the dates specified. [40 CFR 63.10030(a)]

h. The permittee must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin. [40 CFR 63.10030(d)]

i. The permittee must submit each of the following reports that apply: [40 CFR 63.10031(a)]
   i. If the permittee is required or elects to monitor Hg emissions continuously, the permittee must meet the electronic reporting requirements of Appendix A to 40 CFR 63, Subpart UUUUU. [40 CFR 63.10031(a)(1)]

   ii. In regard to PM CEMS, the permittee must meet the electronic reporting requirements of Appendix C to 40 CFR 63, Subpart UUUUU. Electronic reporting of hourly PM emissions data shall begin with the later of the first operating hour on or after January 1, 2024; or the first operating hour after completion of the initial PM CEMS correlation test. [40 CFR 63.10031(a)(3)]

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

iii. In regard to SO_2 CEMS, the permittee must use the ECMPS reporting tool to submit the information required in 40 CFR 63.10031(a)(5)(i) through (iii) to EPA (except where it is already required to be reported or has been previously provided under the Acid Rain Program or another emissions reduction program that requires the use of 40 CFR Part 75). [40 CFR 63.10031(a)(5)]

j. The permittee shall submit semiannual compliance reports according to the requirements in 40 CFR 63.10031(b)(1) through (5). The permittee shall submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in 40 CFR 63.10031(b)(1) through (4). [40 CFR 63.10031(b) and 63.10031(b)(5)]

k. The semiannual compliance report shall contain the information required in 40 CFR 63.10031(c)(1) through (10). [40 CFR 63.10031(c)]
   i. The information required by the summary report located in 40 CFR 63.10(e)(3)(vi). [40 CFR 63.10031(c)(1)]

   ii. 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 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)]

   iii. 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)]

   iv. 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)]

   v. The permittee shall report emergency bypass information annually from EGUs with LEE status. [40 CFR 63.10031(c)(6)]

   vi. 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 three years to maintain LEE status, consistent with 40 CFR 63.10006(b), the date of each stack test conducted during the previous three years, a comparison of emission level achieved in each stack test conducted during the previous three years to the 50 percent emission limit threshold required in 40 CFR 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 10031(c)(7)]

   vii. A certification. [40 CFR 10031(c)(8)]

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

viii. 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, emission point identification, and the cause of the deviation. [40 CFR 10031(c)(9)]

ix. If there was any process or control equipment malfunction(s) during the reporting period, the permittee shall include the number, duration, and a brief description for each type of malfunction which occurred during the semiannual reporting period which caused or may have caused any applicable emission limitation to be exceeded. [40 CFR 63.10031(c)(10)]

l. Reporting of the information under 40 CFR 63.10(e)(3)(vi) (and under (e)(3)(v) if the applicable excess emissions and/or monitor downtime threshold is exceeded) is discontinued for all CMS, and the permittee must, instead include in the quarterly compliance reports described in 40 CFR 63.10031(g) the applicable data elements in Section 13 of Appendix E to 40 CFR 63, Subpart UUUUU for any "deviation" (as defined in 40 CFR 63.10042 and elsewhere in 40 CFR 63, Subpart UUUUU) that occurred during the calendar quarter. If there were no deviations, the permittee must include a statement to that effect in the quarterly compliance reports. [40 CFR 63.10031(d)]

m. The permittee must report all deviations as defined in this 40 CFR 63, Subpart UUUUU in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a semiannual compliance report pursuant to 40 CFR 63.10031(c) and (d), or two quarterly compliance reports covering the appropriate calendar half pursuant to 40 CFR 63.10031(g), along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report(s) includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in 40 CFR 63, Subpart UUUUU, submission of the compliance report(s) satisfies any obligation to report the same deviations in the semiannual monitoring report. Submission of the compliance report(s) does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. [40 CFR 63.10031(e)]

n. For each performance stack test completed prior to January 1, 2024, the permittee must submit a PDF test report in accordance with 40 CFR 63.10031(f)(6), no later than 60 days after the date on which the testing is completed. For each test completed on or after January 1, 2024, in accordance with 40 CFR 63.10031(g), submit the applicable reference method information in sections 17 through 31 of Appendix E to 40 CFR 63, Subpart UUUUU along with the quarterly compliance report for the calendar quarter in which the test was completed. [40 CFR 63.10031(f)]

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

i. For each RATA of an Hg, HCl, HF, or SO2 monitoring system completed prior to January 1, 2024, and for each PM CEMS correlation test, each relative response audit (RRA) and each response correlation audit (RCA) of a PM CEMS completed prior to that date, the permittee must submit a PDF test report in accordance with 40 CFR 63.10031(f)(6) no later than 60 days after the date on which the test is completed. For each SO2 or Hg RATA completed on or after January 1, 2024, the permittee must submit the applicable reference method information in sections 17 through 31 of Appendix E to 40 CFR 63, Subpart UUUUU prior to or concurrent with the relevant quarterly emissions report. For HCl or HF RATAs, and for correlation tests, RRAs, and RCAs of PM CEMS that are completed on or after January 1, 2024, submit the Appendix E reference method information together with the summarized electronic test results, in accordance with Section 11.4 of Appendix B to 40 CFR 63, Subpart UUUUU or Section 7.2.4 of Appendix C to 40 CFR part 60, as applicable. [40 CFR 63.10031(f)(1)]

ii. The permittee must submit quarterly PDF reports in accordance with 40 CFR 63.10031(f)(6), which include all of the 30-boiler operating day rolling average emission rates derived from the CEMS data. The quarterly reports are due within 60 days after the reporting periods ending on March 31st, June 30th, September 30th, and December 31st. Submission of these quarterly reports in PDF files shall end with the report that covers the fourth calendar quarter of 2023. Beginning with the first calendar quarter of 2024, the compliance averages shall no longer be reported separately, but shall be incorporated into the quarterly compliance reports described in 40 CFR 63.10031(g). In addition to the compliance averages for PM CEMS and HAP metals CMS, the quarterly compliance reports described in 40 CFR 63.10031(g) must also include the 30-boiler operating day rolling average emission rates for Hg, HCl, HF, and/or SO_2, if elected to (or are required to) continuously monitor these pollutants. Further, if the EGU is in an averaging plan, the quarterly compliance reports must identify all of the EGUs in the plan and must include all of the 30-group boiler operating day rolling weighted average emission rates (WAERs) for the averaging group. [40 CFR 63.10031(f)(2)]

iii. The permittee must submit semiannual compliance reports as required under 40 CFR 63.10031(b) through (d), ending with a report covering the semiannual period from July 1 through December 31, 2023, and Notifications of Compliance Status as required under 40 CFR 63.10030(e), as PDF files. Quarterly compliance reports shall be submitted in a format specified by the Administrator, thereafter, in accordance with 40 CFR 63.10031(g), starting with a report covering the first calendar quarter of 2024. [40 CFR 63.10031(f)(4)]

iv. All reports required by 40 CFR 63, Subpart UUUUU not subject to the requirements in 40 CFR 63.10031(f) introductory text and 40 CFR 63.10031(f)(1) through (4) must be sent to the Administrator at the appropriate address listed in 40 CFR 63.13. If acceptable to both the Administrator and the permittee, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to 40 CFR 63.10031(f) introductory text and 40 CFR 63.10031(f)(1) through (4) in paper format. [40 CFR 63.10031(f)(5)]

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

v. All reports and notifications described in 40 CFR 63.10031(f) introductory text, 40 CFR 63.10031(f)(1), (2), and (4) shall be submitted to the EPA in the specified format and at the specified frequency, using the ECMPS reporting tool. Each PDF version of a stack test report, CEMS RATA report, PM CEMS correlation test report, RRA report, and RCA report must include sufficient information to assess compliance and to demonstrate that the reference method testing was done properly. Note that EPA will continue to accept, as necessary, PDF reports that are being phased out at the end of 2023, if the submission deadlines for those reports extend beyond December 31, 2023. The following data elements must be entered into the ECMPS reporting tool at the time of submission of each PDF file: [40 CFR 63.10031(f)(6)]

A. The facility name, physical address, mailing address (if different from the physical address), and county; [40 CFR 63.10031(f)(6)(i)]

B. The ORIS code (or equivalent ID number assigned by EPA's Clean Air Markets Division (CAMD)) and the Facility Registry System (FRS) ID; [40 CFR 63.10031(f)(6)(ii)]

C. The EGU to which the report applies. Report the EGU IDs as they appear in the CAMD Business System; [40 CFR 63.10031(f)(6)(iii)]

D. The identification of each emission point to which the report applies. An “emission point” is a point at which source effluent is released to the atmosphere. To identify an emission point, associate it with the EGU or stack ID in the CAMD Business system or the electronic monitoring plan (*e.g.,* “Unit 2 stack,” “common stack CS001,” or “multiple stack MS001”); [40 CFR 63.10031(f)(6)(vi)]

E. An indication of the type of PDF report or notification being submitted; [40 CFR 63.10031(f)(6)(vii)]

F. The pollutant(s) being addressed in the report; [40 CFR 63.10031(f)(6)(viii)]

G. The reporting period being covered by the report (if applicable); [40 CFR 63.10031(f)(6)(ix)]

H. The relevant test method that was performed for a performance test (if applicable); [40 CFR 63.10031(f)(6)(x)]

I. The date the performance test was completed (if applicable) and the test number (if applicable); and [40 CFR 63.10031(f)(6)(xi)]

J. The responsible official's name, title, and phone number. [40 CFR 63.10031(f)(6)(xii)]

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

o. The permittee must use the ECMPS reporting tool to submit quarterly electronic compliance reports. Each quarterly compliance report shall include the applicable data elements in Sections 2 through 13 of Appendix E to 40 CFR 63, Subpart UUUUU. For each stack test summarized in the compliance report, the permittee must also submit the applicable reference method information in Sections 17 through 31 of Appendix E to 40 CFR 63, Subpart UUUUU. The compliance reports and associated Appendix E information must be submitted no later than 60 days after the end of each calendar quarter. [40 CFR 63.10031(g)]

p. Initial Notifications of Compliance Status (if any) shall be submitted in accordance with 40 CFR 63.9(h)(2)(ii), as PDF files, using the ECMPS reporting tool. The applicable data elements in 40 CFR 63.10031(f)(6)(i) through (xii) must be entered into ECMPS with each Notification. [40 CFR 63.10031(h)]

q. If the permittee elects to use a certified PM CEMS to monitor PM emissions continuously to demonstrate compliance with 40 CFR 63, Subpart UUUUU and have begun recording valid data from the PM CEMS prior to November 9, 2020, the permittee must use the ECMPS reporting tool to submit a detailed report of the PS 11 correlation test (see Appendix B to 40 CFR part 60) in a PDF file no later than 60 days after that date. For a correlation test, the permittee must submit the PDF report according to Section 7.2.4 of Appendix C to this 40 CFR 63, Subpart UUUUU. The applicable data elements in 40 CFR 63.10031(f)(6)(i) through (xii) must be entered into ECMPS with the PDF report. [40 CFR 63.10031(j)]

r. See **Section F – Monitoring, Recordkeeping, and Reporting Requirements** for general reporting requirements.

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

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;

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

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 29 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. See **Section E – Source Control Equipment Requirements** for general requirements.

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

Emission Units 23-29 Simple Cycle 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. <u>Operating Limitations</u>** e. shall be submitted prior to the usage of distillate fuel oil as a secondary fuel for non-emergency usage.

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

APPLICABLE REGULATIONS:

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

401 KAR 51:240, codifying **40 C.F.R. 97.401 through 97.435, Subpart AAAAA**, *Cross-State Air Pollution Rule (CSAPR) NO_x annual trading program* (See **Section L**)

401 KAR 51:250, codifying **40 C.F.R. 97.801 through 97.835, Subpart EEEEE**, *Cross-State Air Pollution Rule (CSAPR) NO_x ozone season group 2 trading program* (See **Section L**)

401 KAR 51:260, codifying **40 C.F.R. 97.601 through 97.635, Subpart CCCCC**, *Cross-State Air Pollution Rule (CSAPR) SO_2 group 1 trading program* (See **Section L**)

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), 40 C.F.R. 60.330 through 60.335 **(Subpart GG**) *Standards of Performance for Stationary Gas Turbines*

401 KAR 63:002, Section 2(4)(dddd), 40 C.F.R. 63.6080 through 63.6175, Tables 1 through 7 (**Subpart YYYY**) *National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines* (Note: 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 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 Method*:**
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 Method*:**
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** e. is submitted. [40 CFR 75, Appendix E, Section 2.1.4.3]

d. If any unit's operations exceed the levels required to be a peaking unit, the permittee shall install and certify a NO_x-diluent CEMS no later than December 31 of the following calendar year. [40 CFR 75, Appendix E, Section 1.1]

Compliance Demonstration Method:
Compliance shall be demonstrated according to **4. Specific Monitoring Requirements** c. and **5. Specific Recordkeeping Requirements** c.

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

e. 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]

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 Method*:**

For each unit, the permittee shall demonstrate compliance with this requirement during performance testing 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. These procedures shall be used to identify the acceptable parametric values/ranges against which the data recorded by the continuous monitoring system required by **4. Specific Monitoring Requirements** d. is compared. Continuous compliance with this requirement is demonstrated via compliance with **4. Specific Monitoring Requirements** d. and **5. Specific Recordkeeping Requirements** d.

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 Method*:**

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 Administrator 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)]

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

***Compliance Demonstration Method*:**
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 (SO_2) emissions shall not exceed the following limits: [401 KAR 51:017 and 40 CFR 60.333(b)]

Emission Unit	Plant Unit ID	Fuel sulfur content		SO_2 Emission (lb/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 Method*:**
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** h. The permittee shall be considered in compliance with the SO_2 emission rate limits (lb/hr) when demonstrating compliance with the fuel sulfur content limits.

e. Carbon monoxide (CO) 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 Method*:**
For each unit, the permittee shall demonstrate compliance using the results of the most recent performance test required by **3. Testing Requirements** b. and c. 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.

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

f. Particulate matter (PM) emissions from each unit shall not exceed the following limits: [401 KAR 51:017]

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

***Compliance Demonstration Method*:**
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. 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.

g. Volatile Organic Compound (VOC) emissions from each unit shall not exceed: [401 KAR 51:017]

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

***Compliance Demonstration Method*:**
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. 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]

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

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 Method*:**

I. For distillate fuel oil:

A. For each unit, the permittee shall demonstrate compliance using the results of the most recent performance test required by **3. Testing Requirements** c.

B. 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** h. For compliance, the permittee shall assume all beryllium in the fuel is emitted as beryllium.

C. 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.

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

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 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]

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

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 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 monitor the amount of natural gas (in MMscf) and fuel oil (in gallons) combusted by each unit on a monthly basis. [401 KAR 52:020, Section 10]

b. The permittee shall monitor the hours of operation of each unit on a monthly basis. [401 KAR 52:020, Section 10]

c. The permittee shall monitor the power output (in MW) from each unit on a monthly basis. [401 KAR 52:020, Section 10]

d. 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)]

e. 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)]

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

f. 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 permittee may use sound engineering judgment and operating experience with the unit to establish 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]

g. When the operating levels of certain parameters exceed the limits specified in **4. Specific Monitoring Requirements** f., or where the Administrator 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 Section 2.3 of Appendix E of 40 CFR part 75 since the last test is less than 90.0 percent, as calculated by the Administrator, 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 Administrator 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]

h. 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)]

i. 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]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the amount of natural gas (in MMscf) and fuel oil (in gallons) combusted by each unit on a monthly basis. [401 KAR 52:020, Section 10]

b. The permittee shall maintain records of the hours of operation of each unit on a monthly and 12-month rolling total basis. [401 KAR 52:020, Section 10]

c. The permittee shall maintain records of the power output (in MW) for each unit on a monthly basis. [401 KAR 52:020, Section 10]

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

d. 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)]

e. 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]

f. 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]

g. The permittee shall maintain records of the fuel monitoring plan, including the results of each fuel sampling. [401 KAR 52:020, Section 10]

h. 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]

i. 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]

j. The permittee shall maintain records regarding all maintenance of the water injection system. [401 KAR 52:020, Section 10]

k. If the permittee uses any quantity of distillate oil to fire any new or existing stationary combustion turbine, the permittee must keep records of the daily fuel usage monitors. [40 CFR 63.6155(b)]

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

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: [40 CFR 60.334(j)]

   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)]

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

A. 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. [40 CFR 60.334(j)(1)(i)(A)]

B. 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. [40 CFR 60.334(j)(1)(i)(B)]

C. 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). [40 CFR 60.334(j)(1)(i)(C)]

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)]

A. 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 [40 CFR 60.334(j)(2)(i)]

B. 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 permittee 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 40 CFR 60.334(j)(2)(i). When all of the fuel from delivery has been burned, the permittee may resume using the as-delivered sampling option. [40 CFR 60.334(j)(2)(ii)]

C. 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. [40 CFR 60.334(j)(2)(iii)]

SECTION B - EMISSION POINTS, EMISSION UNITS, 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. If the permittee uses any quantity of distillate oil to fire any new or existing stationary combustion turbine, the permittee must submit an annual report according to Table 6 of 40 CFR 63, Subpart YYYY by the date specified unless the Administrator has approved a different schedule, according to the information described in 40 CFR 63.6150(d)(1) through (5). The permittee must report the data specified in 40 CFR 63.6150(e)(1) through (3). The permittee must submit all subsequent reports to the EPA following the procedure specified in 40 CFR 63.6150(g). [40 CFR 63.6150(e)]

i. The number of hours distillate oil was fired by each new or existing stationary combustion turbine during the reporting period. [40 CFR 63.6150(e)(1)]

ii. The operating limits provided in the federally enforceable permit, and any deviations from these limits. [40 CFR 63.6150(e)(2)]

iii. Any problems or errors suspected with the meters. [40 CFR 63.6150(e)(3)]

c. See **Section F – Monitoring, Recordkeeping, and Reporting Requirements** for general reporting requirements.

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

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 general requirements.

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

Emission Unit 58 Combined Cycle Combustion Turbine with HRSG

Description:

Combined cycle operation consisting of one natural gas-fired lean premix combustion turbine (CT) and one steam turbine. The heat from the combustion gases created by the CT is used in a heat recovery steam generator (HRSG) to produce steam from water in a closed loop system. The HRSG is equipped with natural gas-fired duct burners (DBs) to assist in the production of steam, as needed, and this steam is used in the steam turbine. Electricity is generated from both the CT and the steam turbine. This unit will utilize inlet evaporative cooling and dry low-NO_x combustors in the CT and low-NO_x burners in the HRSG.

Facility Name:	Unit 12
Make/Model:	GE 7HA.03 Gas Turbine (GT)
Construction Commenced:	Proposed June 2026
Maximum Continuous Rating:	4,895 MMBtu/hr for the GT 4,525 MMBtu/hr (HHV) when firing DBs* 3,969 MMBtu/hr (HHV) when not firing DBs* *maximum simulated heat input capacity across NGCC system taking into account seasonal variation for baseload operation
Maximum Power Output:	681 MWh (gross)
Fuel:	Natural Gas
Controls:	Selective Catalytic Reduction (SCR), Dry-Low NO_x Combustors (DLN), Oxidation Catalyst

APPLICABLE REGULATIONS:

401 KAR 51:017, *Prevention of significant deterioration of air quality* (CO, NO_x, PM, PM_{10}, $PM_{2.5}$, VOC, H_2SO_4, and CO_2e)

401 KAR 51:160, *NO_x requirements for large utility and industrial boilers*

401 KAR 51:240, codifying **40 C.F.R. 97.401 through 97.435, Subpart AAAAA**, *Cross-State Air Pollution Rule (CSAPR) NO_x annual trading program* (See **Section L**)

401 KAR 51:250, codifying **40 C.F.R. 97.801 through 97.835, Subpart EEEEE**, *Cross-State Air Pollution Rule (CSAPR) NO_x ozone season group 2 trading program* (See **Section L**)

401 KAR 51:260, codifying **40 C.F.R. 97.601 through 97.635, Subpart CCCCC**, *Cross-State Air Pollution Rule (CSAPR) SO_2 group 1 trading program* (See **Section L**)

401 KAR 52:060, *Acid rain permits* (See **Section J**)

401 KAR 60:005, Section 2(2)(wwww), 40 C.F.R. 60.5508a through 60.5580a, Tables 1 through 3 (**Subpart TTTTa**), *Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units*

401 KAR 63:002, Section 2(4)(dddd), 40 C.F.R. 63.6080 to 63.6175, Tables 1 to 7 (**Subpart YYYY**), *National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines*

40 CFR 60, Subpart KKKKa, *Standards of Performance for Stationary Combustion Turbines*

40 CFR Part 64, *Compliance Assurance Monitoring* (for VOC)

NON-APPLICABLE REGULATION:

401 KAR 60:005, Section 2(2)(b), 40 C.F.R. 60.40Da through 60.52Da (**Subpart Da**), *Standards of Performance for Electric Utility Steam Generating Units* not applicable to duct burners

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

if the duct burner is used with a HRSG unit that is part of a combustion turbine that is subject to 40 CFR 60, Subpart KKKKa.

ADDITIONAL REQUIREMENT SPECIFICALLY FOR HRSG:
401 KAR 59:015, *New indirect heat exchangers*

1. **Operating Limitations:**
   a. The permittee shall install, operate, and maintain an oxidation catalyst according to the manufacturer's specifications. Flue gas emissions shall be routed through the oxidation catalyst at all times. [401 KAR 51:017: BACT for CO and VOC]

   Compliance Demonstration Method:
   Compliance shall be demonstrated according to **3. Testing Requirements** b. **4. Specific Monitoring Requirements** e., **5. Specific Recordkeeping Requirements** d. and e., and **7. Specific Control Equipment Operating Conditions** c.

   b. The permittee shall install, operate, and maintain an SCR according to the manufacturer's specifications. Flue gas emissions shall be routed through the SCR at all times. [401 KAR 51:017: BACT for NO_x]

   Compliance Demonstration Method:
   Compliance shall be demonstrated according to **3. Testing Requirements** c., **4. Specific Monitoring Requirements** e., **5. Specific Recordkeeping Requirements** d. and e., and **7. Specific Control Equipment Operating Conditions** b.

   c. The permittee shall use natural gas with a total sulfur content of 0.5 grains of sulfur or less per 100 dry standard cubic feet of natural gas. [401 KAR 51:017]

   Compliance Demonstration Method:
   Compliance shall be demonstrated according to **4. Specific Monitoring Requirements** g. and **5. Specific Recordkeeping Requirements** f.

   d. The permittee shall prepare and maintain for EU 58 a good combustion and operations practices plan (GCOP) within 90 days of startup that defines, measures, and verifies the use of operational and design practices determined as BACT for minimizing CO, NO_x, PM, PM_{10}, $PM_{2.5}$, VOC, H_2SO_4, and GHG emissions. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Division's inspection. The plan shall include, but not be limited to: [401 KAR 51:017]
      i. A list of combustion optimization practices and a means of verifying the practices have occurred.

      ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred.

      iii. A list of the design choices determined to be BACT, including inlet air filters and dry low NO_x burners, and verification that designs were implemented in the final construction.

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

iv. A list of parameters to be continuously monitored by a continuous parameter monitoring system (CPMS), including, but not limited to, temperature, pressure drop, and aqueous ammonia flow rate, as applicable for each control device.

v. Procedures for limiting ammonia slip from the SCR.

Compliance Demonstration Method:
Compliance with the GCOP BACT shall be demonstrated according to **5 Specific Recordkeeping Requirements** d.

e. The permittee must operate and maintain the stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. [40 CFR 60.4333a(a)]

f. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator which may include, but is not limited to, fuel use records, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, review of reports, and inspection of the source. [40 CFR 60.5525a(b) and 40 CFR 63.6105(c)]

g. The permittee shall maintain the 4-hour rolling average of the oxidation catalyst inlet temperature within the range suggested by the catalyst manufacturer. The permittee is not required to use the catalyst inlet temperature data that is recorded during startup in the calculations of the 4-hour rolling average catalyst inlet temperature. [40 CFR 63.6100 and 63.6140 referencing Table 2, Item 1. of 40 CFR 63, Subpart YYYY]

Compliance Demonstration Method:
The permittee must demonstrate continuous compliance according to **4. Specific Monitoring Requirements** y., z., and aa. and **5. Specific Recordkeeping Requirements** ff. and **6. Specific Reporting Requirements** z.

h. The permittee shall comply with the emissions limitations and operating limitations of 40 CFR 63, Subpart YYYY upon startup of the affected source. [40 CFR 63.6095(a)(4)]

HRSG Only Requirement (with DBs):

i. During a startup period or a shutdown period, the permittee shall comply with the work practice standards established in 401 KAR 59:015, Section 7: [401 KAR 59:015, Section 7and Section 7(1)]
   i. The permittee shall comply with 401 KAR 50:055, Section 2(5); [401 KAR 59:015, Section 7(1)(a)]

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

ii. The frequency and duration of startup periods or shutdown periods shall be minimized by the affected facility; [401 KAR 59:015, Section 7(1)(b)]

iii. All reasonable steps shall be taken by the permittee to minimize the impacts of emissions on ambient air quality from the affected facility during startup periods and shutdown periods; [401 KAR 59:015, Section 7(1)(c)]

iv. The actions, including duration of the startup period, shall be documented by signed, contemporaneous logs or other relevant evidence; and [401 KAR 59:015, Section 7(1)(d)]

v. Startups and shutdowns shall be conducted according to either the manufacturer's recommended procedures or recommended procedures for a unit of similar design, for which manufacturer's recommended procedures are available, as approved by the Cabinet based on documentation provided by the permittee. [401 KAR 59:015, Section 7(1)(e), 7(1)(e)1., and 7(1)(e)2.]

Compliance Demonstration Method:
Compliance with the applicable 401 KAR 59:015 work practice standards shall be demonstrated according to **5. Specific Recordkeeping Requirements** c.

2. Emission Limitations:

a. For BACT, the permittee shall not allow emissions to exceed the following: [401 KAR 51:017]

Pollutant	Emission Limit	Averaging Period	Compliance Demonstration Method
CO	2.0 ppmvd at 15% O_2	24-hour rolling[a]	CO CEMS (See **4. Specific Monitoring Requirements** c., **5. Specific Recordkeeping Requirements** d., and **6. Specific Reporting Requirements** a. through c.)
	134.6 tpy	12-month rolling[b]	
NO_x	2.0 ppmvd at 15% O_2	24-hour rolling[a]	NO_x CEMS (See **4. Specific Monitoring Requirements** f., **5. Specific Recordkeeping Requirements** , d., and **6. Specific Reporting Requirements** a. through c.)
	151.4 tpy	12-month rolling[b]	

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

Pollutant	Emission Limit	Averaging Period	Compliance Demonstration Method
PM[d], PM_{10}[e], & $PM_{2.5}$[e], each	0.005 lb/MMBtu	3-hour block average[b]	Performance Testing (See **3. Testing Requirements** a., **5. Specific Recordkeeping Requirements** d. & **6. Specific Reporting Requirements** b. and c.)
	98.9 tpy[c]	12-month rolling[b]	
VOC	1.0 ppmvd (as CH_4) at 15% O_2 without DBs	3-hour block average[a]	Performance Testing (See **3. Testing Requirements** b., **4. Specific Monitoring Requirements** e., **5. Specific Recordkeeping Requirements** d. and e., & **6. Specific Reporting Requirements** b. and c.)
	2.0 ppmvd (as CH_4) at 15% O_2 with DBs		
	64.6 tpy	12-month rolling[b]	
CO_2	925 lb/MWh (gross) without DBs	12-month rolling[b]	CO_2 CEMS (See **4. Specific Monitoring Requirements** d. and x., **5. Specific Recordkeeping Requirements** d. and x., and **6. Specific Reporting Requirements** a. through c.)
	815 lb/MWh (gross) with DBs		
CO_2e[f]	2,261,306 tpy	12-month rolling[b]	See **5. Specific Recordkeeping Requirements** d. and **6. Specific Reporting Requirements** b. and c.

[a] Excluding startups and shutdowns
[b] Including startups and shutdowns
[c] All PM assumed to be less than 2.5 μm in mean diameter;
[d] PM includes filterable particulate only;
[e] PM_{10} & $PM_{2.5}$ includes filterable and condensable particulate;
[f] CO_2e utilizes Global Warming Potentials of 28 and 265 for CH_4 and N_2O, respectively

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

b. The permittee must not discharge into the atmosphere from the affected facility any gases that contain an amount of NO_x that exceeds the applicable emission standard and be in accordance with the requirements specified in 40 CFR 60.4320a(b). If the permittee chooses to use NO_x CEMS, input-based emission rates and standards are determined on a 4-operating-hour rolling basis and output-based emission rates and standards are determined on a 30-operating-day rolling basis. Mass-based emission rates are determined on both a 4-operating-hour and 12-calendar-month rolling basis. [40 CFR 60.4320a(a)]

i. The NO_x emission standard that is applicable to the affected facility shall be determined on an operating-hour basis, unless the permittee elects to use the alternative provided for in 40 CFR 60.4320a(b)(2). Determining the hourly NO_x emission standards for the affected facility requires recording hourly data and maintaining records according to the requirements in 40 CFR 60.4390a. For hours with multiple emission standards, the applicable standard for that hour is determined based on the condition, excluding periods of monitor downtime, that corresponds to the highest emissions standard. For example, if the affected facility operates at 70 percent or less of its base load rating for any portion of the hour, the emission limit(s) in Table 1 to 40 CFR 60, Subpart KKKKa for combustion turbines operating at 70 percent or less of base load rating shall apply for that hour. [40 CFR 60.4320a(b)(1)]

ii. As an alternative to the requirements specified in 40 CFR 60.4320a(b)(1), the permittee may elect to use the lowest NO_x emission standard that is applicable to the affected facility, as determined using Table 1 to 40 CFR 60, Subpart KKKKa, for the entire required compliance period. [40 CFR 60.4320a(b)(2)]

iii. The permittee must meet the NO_x emission standard as determined by the applicable size category in Table 1 or 2 to 40 CFR 60, Subpart KKKKa. [40 CFR 60.4320a(b)(3)]

A. With utilization rate >45 percent, input-based NO_x emission standard is 5 ppm at 15 percent O_2 or 7.9 ng/J (0.018 lb/MMBtu), determined on a 4-operating-hour rolling average basis. [40 CFR 60, Subpart KKKKa, Table 1]

B. With utilization rate >45 percent, optional output-based NO_x standard is 0.054 kg/MWh-gross (0.12 lb/MWh-gross) or 0.055 kg/MWh-net (0.12 lb/MWh-net), determined on a 30-operating-day average basis. [40 CFR 60, Subpart KKKKa, Table 1]

C. With utilization rate ≤45 percent and with design efficiency ≥38 percent, input-based NO_x emission standard is 25 ppm at 15 percent O_2 or 40 ng/J (0.092 lb/MMBtu), determined on a 4-operating-hour rolling average basis. [40 CFR 60, Subpart KKKKa, Table 1]

D. With utilization rate ≤45 percent and with design efficiency ≥38 percent, optional output-based NO_x standard is 0.38 kg/MWh-gross (0.83 lb/MWh-gross) or 0.39 kg/MWh-net (0.85 lb/MWh-net), determined on a 30-operating-day average basis. [40 CFR 60, Subpart KKKKa, Table 1]

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

E. With utilization rate ≤45 percent and with design efficiency <38 percent, input-based NO_x emission standard is 9 ppm at 15 percent O_2 or 14 ng/J (0.033 lb/MMBtu), determined on a 4-operating-hour rolling average basis. [40 CFR 60, Subpart KKKKa, Table 1]

F. With utilization rate ≤45 percent and with design efficiency <38 percent, optional output-based NO_x standard is 0.17 kg/MWh-gross (0.37 lb/MWh-gross) or 0.17 kg/MWh-net (0.38 lb/MWh-net), determined on a 30-operating-day average basis. [40 CFR 60, Subpart KKKKa, Table 1]

G. When operating at ambient temperatures less than 0 °F (-18 °C), operating during periods of turbine tuning, and/or operating at less than 70 percent of the base load rating, input-based NO_x emission standard is 96 ppm at 15 percent O_2 or 150 ng/J (0.35 lb/MMBtu), determined on a 4-operating-hour rolling average basis. [40 CFR 60, Subpart KKKKa, Table 1]

H. Alternative mass-based 4-operating-hour rolling average NO_x emission standard is 0.38 kg/MW-rated output (0.83 lb/MW-rated output). [40 CFR 60, Subpart KKKKa, Table 2]

I. Alternative mass-based 12-calendar-month rolling average NO_x emission standard is 0.44 tonne/MW-rated output (0.48 ton/MW-rated output). [40 CFR 60, Subpart KKKKa, Table 2]

iv. The permittee must meet the applicable NO_x emission standard during all times that the affected facility is operating (including periods of startup, shutdown, and malfunction). [40 CFR 60.4320a(d)]

v. *Utilization rate* means the ratio between the actual heat input to a stationary combustion turbine during a calendar year and the potential heat input to the stationary combustion turbine had it been operated for 8,760 hours during a calendar year at the base load rating. Heat input during a system emergency as defined in 40 CFR 60.4420a is excluded when determining the utilization rate. Actual and potential heat input derived from non-combustion sources (*e.g.,* solar thermal) are not included when calculating the utilization rate. [40 CFR 60.4420a definition for *Annual capacity factor*]

Compliance Demonstration Method:

A. Initial compliance with the applicable 40 CFR 60, Subpart KKKKa NO_x emission standard shall be demonstrated according to **3. Testing Requirements** c.

B. Continuous compliance with the NO_x emission standard shall be demonstrated according to **4. Specific Monitoring Requirements** e.

c. The permittee must not cause to be discharged from the affected facility into the atmosphere any gases that contain any amount of SO_2 exceeding either: [40 CFR 60.4330a(a)]

i. 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh)) gross energy output; or [40 CFR 60.4330a(a)(1)]

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

ii. 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input. [40 CFR 60.4330a(a)(2)]

Compliance Demonstration Method:

A. Initial compliance with the applicable 40 CFR 60, Subpart KKKKa SO_2 emission standard shall be demonstrated according to **6. Specific Reporting Requirements** d.

B. Thereafter, continuous compliance shall be demonstrated by maintaining records according to **5. Specific Recordkeeping Requirements** f.

d. The permittee must not discharge from the combustion turbine any gases that contain CO_2 in excess of the applicable CO_2 emission standard as follows: [40 CFR 60.5520a(a) and Table 1 to 40 CFR 60, Subpart TTTTa for Base load combustion turbines]

i. For 12-operating month averages beginning before January 2032, 360 to 560 kg CO_2/MWh (800 to 1,250 lb CO_2/MWh) of gross energy output; or 370 to 570 kg CO_2/MWh (820 to 1,280 lb CO_2/MWh) of net energy output as determined by the procedures in 40 CFR 60.5525a. [Table 1 to 40 CFR 60, Subpart TTTTa for Base load combustion turbines]

ii. For 12-operating month averages beginning after December 2031, 43 to 67 kg CO_2/MWh (100 to 150 lb CO_2/MWh) of gross energy output; or 42 to 64 kg CO_2/MWh (97 to 139 lb CO_2/MWh) of net energy output as determined by the procedures in 40 CFR 60.5525a.

iii. Where the term "gross or net energy output" is used, the term that applies is "gross energy output." [40 CFR 60.5520a(b)]

iv. As an alternative, the permittee may petition the Administrator in writing to comply with the alternate applicable net energy output standard. If the Administrator grants the petition, beginning on the date the Administrator grants the petition, the affected EGU must comply with the applicable net energy output-based standard included in 40 CFR 60, Subpart TTTTa. Where the term "gross or net energy output" is used, the term that applies is "net energy output." Owners or operators complying with the net output-based standard must petition the Administrator to switch back to complying with the gross energy output-based standard. [40 CFR 60.5520a(c)]

Compliance Demonstration Method:

Compliance with the applicable CO_2 emission standard of 40 CFR 60, Subpart TTTTa shall be determined on a 12-operating-month rolling average basis. The permittee must be in compliance with the emission standard at all times. However, the permittee must determine compliance with the emission standards only at the end of the applicable operating month. See **4. Specific Monitoring Requirements** i. through m., **5. Specific Recordkeeping Requirements** g. through i. and **6. Specific Reporting Requirements** f. through m.

e. The permittee shall limit the concentration of formaldehyde to 91 ppbvd or less at 15-percent O_2, except during turbine startup. The period of time for turbine startup begins at the first firing of fuel in the turbine and ends when the turbine has reached stable operation or after 3 hours, whichever is less. [40 CFR 63.6100 referencing Table 1, Item 1. of 40 CFR 63, Subpart YYYY and 40 CFR 63.6175 *startup* definition]

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

Compliance Demonstration Method:
Compliance shall be demonstrated according to **3. Testing Requirements** d., **5. Specific Recordkeeping Requirements** l., and **6. Specific Reporting Requirements** n.

HRSG Only Requirements (with DBs):

f. The permittee shall not cause emissions of particulate matter in excess of 0.10 lb/MMBtu actual heat input. [401 KAR 59:015, Section 4(1)(b)]

g. The permittee shall not cause emissions of particulate matter in excess of 20 percent opacity, except: [401 KAR 59:015, Section 4(2)]
   i. A maximum of 27 percent opacity shall be permissible for one 6- minute period in any 60 consecutive minutes; and [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 operating conditions shall be allowed, if the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations. [401 KAR 59:015, Section 4(2)(c)]

h. Sulfur dioxide emissions from duct burners shall not exceed 0.8 lb/MMBtu. [401 KAR 59:015 Section 5(1)(b)1.]

Compliance Demonstration Method:
Compliance with the applicable 401 KAR 59:015 PM, opacity, and SO_2 emission limitations are assumed while the duct burners are combusting natural gas.

3. Testing Requirements:

a. Within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of Unit 12, the permittee shall perform an initial performance test to demonstrate compliance with the applicable PM, PM_{10}, and $PM_{2.5}$ (filterable and condensable) emission limit under 401 KAR 51:017 using U.S. EPA Reference Method 201A & 202, or an alternate method approved by the Division in accordance with an approved test protocol. [401 KAR 51:017]
   i. PM testing shall be performed in "fired" mode, as defined in **4. Specific Monitoring Requirements** a.

   ii. The performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. [401 KAR 50:045, Section 5(1)]

   iii. Each performance test shall consist of three separate runs using the applicable test method. For the purpose of determining compliance with the 401 KAR 51:017 BACT limitation, the arithmetic mean of the results of three runs shall apply. [401 KAR 50:045, Section 9(1)]

   iv. Subsequent testing shall be performed within 61 months of the previous stack test.

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

b. Within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of Unit 12, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable VOC emission limitation under 401 KAR 51:017 using U.S. EPA Reference Method 25A and 18 or ALT-096 or Method 320, or an alternate method approved by the Division in accordance with an approved test protocol. [401 KAR 51:017]
   i. VOC testing shall be performed in both "fired" and "unfired" modes, as defined in **4. Specific Monitoring Requirements** a.

   ii. The permittee shall monitor the flue gas flow rate, inlet temperature to the oxidation catalyst and pressure drop across the catalyst for the oxidation catalyst control system.

   iii. The performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. [401 KAR 50:045, Section 5(1)]

   iv. Each performance test shall consist of three separate runs using the applicable test method. For the purpose of determining compliance with the 401 KAR 51:017 BACT limitation, the arithmetic mean of the results of three runs shall apply. [401 KAR 50:045, Section 9(1)]

   v. Subsequent testing shall be performed within 61 months of the previous stack test.

c. The permittee must conduct an initial performance test according to 40 CFR 60.8 using the applicable methods in 40 CFR 60.4400a or 40 CFR 60.4405a. Thereafter, unless the permittee performs continuous monitoring consistent with 40 CFR 60.4335a, 40 CFR 60.4340a, or 40 CFR 60.4345a, the permittee must conduct subsequent performance tests according to the applicable requirements in 40 CFR 60.4333a(b)(1) through (6). [40 CFR 60.4333a(b)]
   i. During the initial performance testing for NO_x, the permittee shall monitor inlet temperature and ammonia injection rate for the SCR system. [401 KAR 51:017 and 401 KAR 52:020, Section 10]

   ii. If the permittee elects to comply with an input-based standard (lb/MMBtu or ppm), the permittee must measure both the emissions at the exhaust stack for the HRSG unit and the fuel flow to the combustion turbine engine and any associated duct burners. [40 CFR 60.4333a(e) and (e)(1)]

   iii. If the permittee elects to comply with an output-based standard (lb/MWh), the permittee must measure both the emissions at the exhaust stack for the HRSG and the total electrical, mechanical energy, and useful thermal output of the stationary combustion turbine (as applicable). [40 CFR 60.4333a(f) and (f)(1)]

   iv. If the permittee uses a CEMS, the initial performance test must use the procedure specified in 40 CFR 60.4405a(b)(1) through (4). [40 CFR 60.4405a(b)]

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

A. Perform a minimum of nine RATA reference method runs, with a minimum time per run of 21 minutes, at a single load level, within ±25 percent of 100 percent of the base load rating while the source is combusting the fuel that is a normal primary fuel for that source. The permittee may perform testing at the highest achievable load point, if at least 75 percent of the base load rating cannot be achieved in practice. The ambient temperature must be greater than 0 °F during the RATA runs. The Administrator or delegated authority may approve performance testing below 0 °F if the timing of the required performance test and environmental conditions make it impractical to test at ambient conditions greater than 0 °F. [40 CFR 60.4405a(b)(1)]

B. For each RATA run, concurrently measure the heat input to the unit using a fuel flow meter (or flow meters) or the methodologies in Appendix F to 40 CFR part 75, and for units complying with the output-based standard, measure the electrical and thermal output from the unit. [40 CFR 60.4405a(b)(2)]

C. Use the test data both to demonstrate compliance with the applicable NO_x emissions standard under 40 CFR 60.4320a and to provide the required reference method data for the RATA of the CEMS described under 40 CFR 60.4342a. [40 CFR 60.4405a(b)(3)]

D. Compliance with the applicable emissions standard in 40 CFR 60.4320a is achieved if the sum of the NO_x emissions divided by the heat input (or gross or net energy output) for all the RATA runs, expressed in units of lb/MMBtu, ppm, lb/MWh, or kgs, does not exceed the emissions standard. [40 CFR 60.4405a(b)(4)]

d. The permittee shall conduct the initial performance tests or other initial compliance demonstrations in Table 4 of 40 CFR 63, Subpart YYYY that apply within 180 calendar days after the compliance date that is specified for the stationary combustion turbine in 40 CFR 63.6095 and according to the provisions in 40 CFR 63.7(a)(2). Subsequent performance tests for formaldehyde shall be performed on an annual basis as specified in Table 3 of 40 CFR 63, Subpart YYYY. [40 CFR 63.6110(a) and 40 CFR 63.6115]

i. The permittee has demonstrated initial compliance if the average formaldehyde concentration meets the emission limitations specified in Table 1 to 40 CFR 63, Subpart YYYY. [40 CFR 63.6130(a) referencing Table 4 to 40 CFR 63, Subpart YYYY]

ii. The permittee must conduct each performance test in Table 3 of 40 CFR 63, Subpart YYYY that applies: [40 CFR 63.6120(a)]

iii. Each performance test shall be conducted according to the requirements in Table 3 of 40 CFR 63 Subpart YYYY. [40 CFR 63.6120(b)]

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

iv. Performance tests must be conducted at high load, defined as 100 percent plus or minus 10 percent. Performance tests shall be conducted under such conditions based on representative performance of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown. The permittee may not conduct performance tests during periods of malfunction. The permittee shall record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the permittee shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.6120(c)]

v. The permittee must conduct three separate test runs for each formaldehyde performance test, and each test run must last at least 1 hour. [40 CFR 63.6120(d)]

e. Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1 and 401 KAR 59:005, Section 2(2)]

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

a. The permittee shall monitor the hours of operation and the amount of natural gas combusted (in MMscf) in both "fired" and "unfired" modes on a monthly basis. [401 KAR 52:020, Section 10]
   i. "Fired" mode is steady-state operation during which the duct burners are in operation and combusting natural gas; and

   ii. "Unfired" mode is steady-state operation during which the duct burners are not operating.

b. The permittee shall monitor the number and duration of startups and shutdowns and type of startup (cold, warm, or hot) on a monthly basis. Each type of startup is defined as follows: [401 KAR 52:020, Section 10]
   i. Cold Startup is preceded by over 72 hours of shutdown or any warming event.

   ii. Warm Startup is preceded by a shutdown or warming event between 8 and 72 hours.

   iii. Hot Startup takes place within 0 to 8 hours of the previous shutdown without any warming provisions.

c. The permittee shall install, calibrate, maintain and operate a continuous emissions monitoring system (CEMS) to monitor CO to determine the hourly CO emission rate in parts per million by volume on a dry basis (ppmvd) at 15% O_2 or the equivalent CO_2 concentration in accordance with 40 CFR 60.13 or 40 CFR part 75. [401 KAR 51:017 and 401 KAR 52:020, Section 10]
   i. The permittee shall perform and report on Quality Assurance (QA) procedures for CO CEMS specified in Appendix F of 40 CFR 60, according to the schedule for QA procedures specified in Appendix B of 40 CFR 75.

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

ii. Testing frequency, data validation, out-of-control criteria, and grace period provisions in Appendix B to 40 CFR part 75, and the specifications in Appendix B and Appendix F to 40 CFR part 60 apply to all CO CEMS.

iii. The CO CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period while the turbine is operating. The permittee shall have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

d. The permittee shall install, calibrate, maintain and operate a CEMS to monitor CO_2 in lb/MWh. As the BACT limit for CO_2 is on an output basis, the permittee shall install, calibrate, maintain, and operate a sufficient number of watt meters to continuously measure and record the hourly gross electric output from the turbine. These measurements shall be performed using 0.2 class electricity metering instrumentation and calibration procedures as specified under ANSI No. C12.20-2010 (incorporated by reference in 40 CFR 60.17). The monitoring plan shall ensure that the meters are installed, calibrated, maintained, and operated to record each component of the determination, hour by hour. [401 KAR 51:017 and 401 KAR 52:020, Section 10]

e. The permittee shall continuously monitor the flue gas flow rate, inlet temperature to the oxidation catalyst and SCR, ammonia injection rate, and pressure drop across the catalyst during all periods of operation, excluding periods of startup and shutdown. [401 KAR 51:017 and 401 KAR 52:020, Section 10]

f. The permittee shall install, calibrate, maintain, and operate a CEMS consisting of a NO_x monitor and a diluent (O_2 or CO_2) monitor to determine the hourly average NO_x emission rate in ppmvd at 15% O_2 or the equivalent CO_2 concentration in accordance with 40 CFR 60.13 or 40 CFR part 75. [401 KAR 51:017]

g. The permittee must demonstrate continuous compliance using a CEMS for measuring NO_x emissions according to the provisions in 40 CFR 60.4345a or, if the permittee elects to comply with the mass-based standard, the methodology in Appendix E to 40 CFR part 75. If the stationary combustion turbine is equipped with a NO_x CEMS, those measurements must be used to determine excess emissions. [40 CFR 60.4333a(c) and 40 CFR 60.4333a(g)]

h. Each CEMS measuring NO_x emissions used to meet the requirements of 40 CFR 60, Subpart KKKKa, must meet the requirements in 40 CFR 60.4345a(a)(1) through (6). [40 CFR 60.4345a(a)]

i. The permittee must install, certify, maintain, and operate a NO_x monitor to determine the hourly average NO_x emissions in the units of the standard with which the permittee is complying. [40 CFR 60.4345a(a)(1)]

ii. If the permittee elects to comply with an input-based or mass-based emissions standard, the permittee must install, calibrate, maintain, and operate either a fuel flow meter (or flow meters) or an O_2 or CO_2 CEMS and a stack flow monitor to continuously measure the heat input to the affected facility. [40 CFR 60.4345a(a)(2)]

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

iii. If the permittee elects to comply with an output-based emissions standard, the permittee must also install, calibrate, maintain, and operate both a watt meter (or meters) to continuously measure the gross electrical output from the affected facility and either a fuel flow meter (or flow meters) or an O_2 or CO_2 CEMS and a stack flow monitor. [40 CFR 60.4345a(a)(3)]

iv. If the permittee elects to comply with the part-load NO_x emissions standard, the permittee must install, calibrate, maintain, and operate either a fuel flow meter (or flow meters) or an O_2 or CO_2 CEMS and a stack flow monitor to continuously measure the heat input to the affected facility. [40 CFR 60.4345a(a)(4)]

v. If the permittee elects to comply with the temperature dependent NO_x emissions standard, the permittee must install, calibrate, maintain, and operate a thermometer to continuously monitor the ambient temperature. [40 CFR 60.4345a(a)(5)]

i. Each NO_x CEMS must be installed and certified according to Performance Specification 2 (PS 2) in Appendix B to 40 CFR part 60. The span value must be 125 percent of the highest applicable standard or highest anticipated hourly NO_x emissions rate. Alternatively, span values determined according to Section 2.1.2 in Appendix A to part 75 may be used. For stationary combustion turbines that use post-combustion technology to reduce emissions of NO_x to comply with the requirements of 40 CFR 60, Subpart KKKKa, the permittee may use NO_x and diluent CEMS that are installed and certified according to Appendix A to 40 CFR part 75 in lieu of Procedure 1 in Appendix F to 40 CFR part 60 and the requirements of 40 CFR 60.13 with approval from the Administrator or delegated authority, except that the relative accuracy test audit (RATA) of the CEMS must be performed on a lb/MMBtu basis. [40 CFR 60.4345a(b)]

j. During each full operating hour, both the NO_x monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour. For partial operating hours, at least one data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two data points (one in each of two quadrants) are required for each monitor. [40 CFR 60.4345a(c)]

k. Each fuel flow meter must be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, fuel flow meters that meet the installation, certification, and quality assurance requirements in Appendix D to 40 CFR part 75 are acceptable for use under 40 CFR 60, Subpart KKKKa. [40 CFR 60.4345a(d)]

l. Each watt meter, steam flow meter, and each pressure or temperature measurement device must be installed, calibrated, maintained, and operated according to manufacturer's instructions. [40 CFR 60.4345a(e)]

m. The permittee must develop, submit to the Administrator or delegated authority for approval, maintain, and adhere to an on-site quality assurance (QA) plan for all of the continuous monitoring equipment the permittee uses to comply with 40 CFR 60, Subpart

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

KKKKa. At a minimum, such a QA plan must address the requirements of 40 CFR 60.13(d), (e), and (h). [40 CFR 60.4345a(f)]

n. The NO_x CEMS data shall be used to determine excess emissions in the following manner: [40 CFR 60.4350a]
   i. If the permittee demonstrates continuous compliance using a CEMS for measuring NO_x emissions, excess emissions are defined as the applicable compliance period for the stationary combustion turbine (either 4-operating-hours, 30-operating-days, or 12-calendar-month), during which the average NO_x emissions from the affected facility measured by the CEMS is greater than the applicable maximum allowable NO_x emissions standard specified in 40 CFR 60.4320a as determined using the procedures specified in 40 CFR 60.4350a that apply to the stationary combustion turbine. [40 CFR 60.4350a(a)]

   ii. The NO_x CEMS data for each operating hour as measured according to the requirements in 40 CFR 60.4345a must be used to determine the hourly average NO_x emissions. The hourly average for a given operating hour is the average of all data points for the operating hour. However, for any periods during which the NO_x, diluent, flow, watt, steam pressure, or steam temperature monitors (as applicable) are out-of-control, the data points are not used in determining the hourly average NO_x emissions. All data points that are not collected during out-of-control periods must be used to determine the hourly average NO_x emissions. [40 CFR 60.4350a(b)]

o. Compliance with the applicable CO_2 emission standard of 40 CFR 60, Subpart TTTTa shall be determined on a 12-operating-month rolling average basis. [40 CFR 60.5525a]

p. The permittee must be in compliance with the emission standards in 40 CFR 60 Subpart TTTTa that apply to the affected EGU at all times. However, the permittee must determine compliance with the CO_2 emission standards at the end of the applicable operating month, by calculating the average CO_2 emissions rate for the affected EGU at the end of the initial and each subsequent 12-operating-month period. [40 CFR 60.5525a(a) and 40 CFR 60.5525a(a)(1)]

q. Within 30 days after the end of the initial compliance period (i.e., no more than 30 days after the first 12-operating-month compliance period), the permittee must make an initial compliance determination for the affected EGU with respect to the applicable emissions standard in Table 1 to 40 CFR 60 Subpart TTTTa. The first operating month included in the initial 12-operating-month compliance period shall be determined as follows: [40 CFR 60.5525a(c)]
   i. For an affected EGU that commences commercial operation (as defined in 40 CFR 72.2), the first month of the initial compliance period shall be the first operating month (as defined in 40 CFR 60.5580a) after the calendar month in which emissions reporting is required to begin under 40 CFR 60.5555a(c)(3)(i). [40 CFR 60.5525a(c)(1) and 40 CFR 60.5525a(c)(1)(i)]

   ii. Emissions of CO_2 emitted by the affected facility and the output of the affected facility generated when it operated during a system emergency as defined in 40 CFR 60.5580a

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

are excluded for both applicability and compliance with the relevant standards of performance if the permittee can sufficiently provide the documentation listed in 40 CFR 60.5560a(i). For intermediate and base load combustion turbines that operate during a system emergency, the permittee must comply with the standard for low load combustion turbines specified in Table 1 to 40 CFR 60, Subpart TTTTa. [40 CFR 60.5525a(c)(3) and 40 CFR 60.5525a(c)(3)(i)]

r. The permittee must prepare a monitoring plan to quantify the hourly CO_2 mass emission rate (tons/h), in accordance with the applicable provisions in 40 CFR 75.53(g) and (h). The electronic portion of the monitoring plan must be submitted using the ECMPS Client Tool and must be in place prior to reporting emissions data and/or the results of monitoring system certification tests under 40 CFR 60 Subpart TTTTa. The monitoring plan must be updated as necessary. Monitoring plan submittals must be made by the Designated Representative (DR), the Alternate DR, or a delegated agent of the DR (see 40 CFR 60.5555a(d) and (e)). [40 CFR 60.5535a(a)]

s. The permittee must determine the hourly CO_2 mass emissions in kg and lb from the affected EGU according to the following, or, if applicable, as provided in 40 CFR 60.5535a(c): [40 CFR 60.5535a(b)]

i. The permittee may install, certify, operate, maintain, and calibrate a CO_2 continuous emission monitoring system (CEMS) to directly measure and record hourly average CO_2 concentrations in the affected EGU exhaust gases emitted to the atmosphere, and a flow monitoring system to measure hourly average stack gas flow rates, according to 40 CFR 75.10(a)(3)(i). As an alternative to direct measurement of CO_2 concentration, provided that the EGU does not use carbon separation (e.g., carbon capture and storage), the permittee may use data from a certified oxygen (O_2) monitor to calculate hourly average CO_2 concentrations, in accordance with 40 CFR 75.10(a)(3)(iii). If the permittee measures CO_2 concentration on a dry basis, the permittee must also install, certify, operate, maintain, and calibrate a continuous moisture monitoring system, according to 40 CFR 75.11(b). Alternatively, the permittee may either use an appropriate fuel-specific default moisture value from 40 CFR 75.11(b) or submit a petition to the Administrator under 40 CFR 75.66 for a site-specific default moisture value. [40 CFR 60.5535a(b)(1)]

ii. For each continuous monitoring system used to determine the CO_2 mass emissions, the permittee must meet the applicable certification and quality assurance procedures in 40 CFR 75.20 and Appendices A and B to 40 CFR part 75. [40 CFR 60.5535a(b)(2)]

iii. The permittee must use only unadjusted exhaust gas volumetric flow rates to determine the hourly CO_2 mass emissions rate from the affected EGU; the permittee must not apply the bias adjustment factors described in Section 7.6.5 of Appendix A to 40 CFR part 75 to the exhaust gas flow rate data. [40 CFR 60.5535a(b)(3)]

iv. The permittee must select an appropriate reference method to set up (characterize) the flow monitor and to perform the on-going RATAs, in accordance with 40 CFR part 75. If the permittee uses a Type-S pitot tube or a pitot tube assembly for the flow RATAs, the permittee must calibrate the pitot tube or pitot tube assembly; the permittee may

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

not use the 0.84 default Type-S pitot tube coefficient specified in Method 2. [40 CFR 60.5535a(b)(4)]

v. Calculate the hourly CO_2 mass emissions (kg and lb) as described below. Perform this calculation only for "valid operating hours", as defined in 40 CFR 60.5540(a)(1). [40 CFR 60.5535a(b)(5)]

A. Begin with the hourly CO_2 mass emission rate (tons/h), obtained either from Equation F-11 in Appendix F to 40 CFR part 75 (if CO_2 concentration is measured on a wet basis), or by following the procedure in Section 4.2 of Appendix F to 40 CFR part 75 (if CO_2 concentration is measured on a dry basis). [40 CFR 60.5535a(b)(5)(i)]

B. Next, multiply each hourly CO_2 mass emission rate by the EGU or stack operating time in hours (as defined in 40 CFR 72.2) to convert it to tons of CO_2. [40 CFR 60.5535a(b)(5)(ii)]

C. Finally, multiply the result from 40 CFR 60.5535a(b)(5)(ii) by 907.2 to convert it from tons of CO_2 to kg. Round off to the nearest kg. [40 CFR 60.5535a(b)(5)(iii)]

D. The hourly CO_2 tons/h values and EGU (or stack) operating times used to calculate CO_2 mass emissions are required to be recorded under 40 CFR 75.57(e) and must be reported electronically under 40 CFR 75.64(a)(6). The permittee must use this data to calculate the hourly CO_2 mass emissions. [40 CFR 60.5535a(b)(5)(iv)]

t. If the affected EGU exclusively combusts liquid fuel and/or gaseous fuel, as an alternative to complying with 40 CFR 60.5535a(b), the permittee may determine the hourly CO_2 mass emissions according to 40 CFR 60.5535a(c)(1) through (4). [40 CFR 60.5535a(c)]

i. If the permittee is subject to an output-based standard and does not install CEMS in accordance with 40 CFR 60.5535a(b), the permittee must implement the applicable procedures in Appendix D to 40 CFR part 75 to determine hourly EGU heat input rates (MMBtu/h), based on hourly measurements of fuel flow rate and periodic determinations of the gross calorific value (GCV) of each fuel combusted. [40 CFR 60.5535a(c)(1)]

ii. For each measured hourly heat input rate, use Equation G-4 in Appendix G to 40 CFR part 75 to calculate the hourly CO_2 mass emission rate (tons/h). The permittee may determine site-specific carbon-based F-factors (Fc) using Equation F-7b in Section 3.3.6 of Appendix F to 40 CFR part 75, and the permittee may use these Fc values in the emissions calculations instead of using the default Fc values in the Equation G-4 nomenclature. [40 CFR 60.5535a(c)(2)]

iii. For each "valid operating hour" (as defined in 40 CFR 60.5540a(a)(1)), multiply the hourly tons/h CO_2 mass emission rate from 40 CFR 60.5535a(c)(2) by the EGU or stack operating time in hours (as defined in 40 CFR 72.2), to convert it to tons of CO_2. Then, multiply the result by 907.2 to convert from tons of CO_2 to kg. Round off to the nearest two significant figures. [40 CFR 60.5535a(c)(3)]

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

iv. The hourly CO_2 tons/h values and EGU (or stack) operating times used to calculate CO_2 mass emissions are required to be recorded under 40 CFR 75.57(e) and must be reported electronically under 40 CFR 75.64(a)(6). The permittee must use this data to calculate the hourly CO_2 mass emissions. [40 CFR 60.5535a(c)(4)]

u. The permittee shall install, calibrate, maintain, and operate a sufficient number of watt meters to continuously measure and record the hourly gross electric output or net electric output, as applicable, from the affected EGU. These measurements must be performed using 0.2 class electricity metering instrumentation and calibration procedures as specified under ANSI Standards No. C12.20-2010 (incorporated by reference, see 40 CFR 60.17). For process steam applications, the permittee will need to install, calibrate, maintain, and operate meters to continuously determine and record the hourly steam flow rate, temperature, and pressure. The plan shall ensure that the permittee installs, calibrates, maintains, and operates meters to record each component of the determination, hour-by-hour. [40 CFR 60.5535a(d) and (d)(1)]

v. For the initial and each subsequent 12-operating-month rolling average compliance period, the permittee must follow the procedures in 40 CFR 60.5540a(a)(1) through (8) to calculate the CO_2 mass emissions rate for the affected EGU in units of the applicable emissions standard (e.g., either kg/MWh or kg/GJ). The permittee must use the hourly CO_2 mass emissions calculated under 40 CFR 60.5535a(b) or (c), as applicable, and the generating load data from 40 CFR 60.5535a(d)(1) for output-based calculations. [40 CFR 60.5540a(a)]

i. Each compliance period shall include only "valid operating hours" in the compliance period, ***i.e.,*** operating hours for which: [40 CFR 60.5540a(a)(1)]

A. "Valid data" (as defined in 40 CFR 60.5580a) are obtained for all of the parameters used to determine the hourly CO_2 mass emissions; and [40 CFR 60.5540a(a)(1)(i)]

B. The corresponding hourly gross or net energy output value is also valid data (Note: For hours with no useful output, zero is considered to be a valid value). [40 CFR 60.5540a(a)(1)(ii)]

ii. The permittee must exclude operating hours in which: [40 CFR 60.5540a(a)(2)]

A. The substitute data provisions of 40 CFR part 75 are applied for any of the parameters used to determine the hourly CO_2 mass emissions; or [40 CFR 60.5540a(a)(2)(i)]

B. An exceedance of the full-scale range of a continuous emission monitoring system occurs for any of the parameters used to determine the hourly CO_2 mass emissions; or [40 CFR 60.5540a(a)(2)(ii)]

C. The total gross or net energy output ($P_{gross/net}$) is unavailable. [40 CFR 60.5540(a)(2)(iii)]

iii. For each compliance period, at least 95 percent of the operating hours in the compliance period must be valid operating hours, as defined in 40 CFR 60.5540a(a)(1). [40 CFR 60.5540a(a)(3)]

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iv. The permittee must calculate the total CO_2 mass emissions by summing the valid hourly CO_2 mass emissions values from 40 CFR 60.5535a for all of the valid operating hours in the compliance period. [40 CFR 60.5540a(a)(4)]

v. For each valid operating hour of the compliance period that was used in 40 CFR 60.5540a(a)(4) to calculate the total CO_2 mass emissions, the permittee must determine $P_{gross/net}$ (the corresponding hourly gross or net energy output in MWh) according to the procedures in 40 CFR 60.5540a(a)(5)(i) and (ii), as appropriate for the type of affected EGU. For an operating hour in which a valid CO_2 mass emissions value is determined according to 40 CFR 60.5540a(a)(1)(i), if there is no gross or net electrical output, but there is mechanical or useful thermal output, the permittee must determine the gross energy output for that hour. In addition, for an operating hour in which a valid CO_2 mass emissions value is determined according to 40 CFR 60.5540a(a)(1)(i), but there is no (i.e., zero) gross electrical, mechanical, or useful thermal output, the permittee must use that hour in the compliance determination. For hours or partial hours where the gross electric output is equal to or less than the auxiliary loads, net electric output shall be counted as zero for this calculation. [40 CFR 60.5540a(a)(5)]

A. Calculate $P_{gross/net}$ for the affected EGU using the following equation. All terms in the equation must be expressed in units of MWh. To convert each hourly gross or net energy output (consistent with 40 CFR 60.5520a) value reported under 40 CFR part 75 to MWh, multiply by the corresponding EGU operating time: [40 CFR 60.5540a(a)(5)(i)]

$$P_{gross/net} = \frac{(Pe)_{ST}+(Pe)_{CT}+(Pe)_{IE}-(Pe)_{FW}}{TDF} + [(Pt)_{PS} + (Pt)_{HR} + (Pt)_{IE}] \quad \text{(Eq. 2)}$$

Where:

$P_{gross/net}$= In accordance with 40 CFR 60.5520a, gross energy output of the affected EGU for each valid operating hour (as defined in 40 CFR 60.5540a(a)(1)) in MWh.

$(Pe)_{ST}$ = Electric energy output plus mechanical energy output (if any) of steam turbines in MWh.

$(Pe)_{CT}$ = Electric energy output plus mechanical energy output (if any) of stationary combustion turbine(s) in MWh.

$(Pe)_{IE}$ = Electric energy output plus mechanical energy output (if any) of the affected EGU's integrated equipment that provides electricity or mechanical energy to the affected EGU or auxiliary equipment in MWh.

$(Pe)_{FW}$ = Electric energy used to power boiler feedwater pumps at steam generating units in MWh. Not applicable to stationary combustion turbines, IGCC EGUs, or EGUs complying with a net energy output-based standard.

$(Pe)_{A}$ = Electric energy used for any auxiliary loads in MWh. Not applicable for determining P_{gross}.

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

$(Pt)_{PS}$ = Useful thermal output of steam (measured relative to standard ambient temperature and pressure (SATP) conditions, as applicable) that is used for applications that do not generate additional electricity, produce mechanical energy output, or enhance the performance of the affected EGU. This is calculated using Equation 3 specified in 40 CFR 60.5540a(a)(5)(ii) in MWh.

$(Pt)_{HR}$ = Non steam useful thermal output (measured relative to SATP conditions, as applicable) from heat recovery that is used for applications other than steam generation or performance enhancement of the affected EGU in MWh.

$(Pt)_{IE}$ = Useful thermal output (relative to SATP conditions, as applicable) from any integrated equipment is used for applications that do not generate additional steam, electricity, produce mechanical energy output, or enhance the performance of the affected EGU in MWh.

TDF = Electric Transmission and Distribution Factor of 0.95 for a combined heat and power affected EGU where at least on an annual basis 20.0 percent of the total gross energy output consists of useful thermal output on a 12-operating-month rolling average basis, or 1.0 for all other affected EGUs.

B. If applicable to the affected EGU (for example, for combined heat and power), the permittee must calculate $(Pt)_{PS}$ using the following equation: [40 CFR 60.5540a(a)(5)(ii)]

$$(Pt)_{PS} = \frac{Q_m \times H}{CF} \quad \text{(Eq. 3)}$$

Where:

Q_m = Measured useful thermal output flow in kg and lb for the operating hour.

H = Enthalpy of the useful thermal output at measured temperature and pressure (relative to SATP conditions or the energy in the condensate return line, as applicable) in Joules per kilogram (J/kg) (or Btu/lb).

CF = Conversion factor of 3.6×10^9 J/MWh or 3.413×10^6 Btu/MWh.

vi. Sources complying with energy output-based standards must calculate the total gross or net energy output for the affected EGU's compliance period by summing the hourly gross or net energy output values for the affected EGU determined under 40 CFR 60.5540a(a)(5) for all of the valid operating hours in the applicable compliance period. [40 CFR 60.5540a(a)(6) and (a)(6)(i)]

vii. The permittee must calculate the CO_2 mass emissions rate for the affected EGU(s) (kg/MWh or lb/MWh) by dividing the total CO_2 mass emissions value calculated according to the procedures in 40 CFR 60.5540a(a)(4) by the total gross or net energy output value calculated according to the procedures in 40 CFR 60.5540a(a)(6)(i). Round off the result to two significant figures if the calculated value is less than 1,000; round the result to three significant figures if the calculated value is greater than 1,000. [40 CFR 60.5540a(a)(7)]

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

viii. The permittee may exclude CO_2 mass emissions and output generated from the affected EGU from the calculations for hours during which the affected EGU operated during a system emergency, as defined in 40 CFR 60.5580a, if the permittee can provide the information listed in 40 CFR 60.5560a(i). While operating during a system emergency, the CO_2 emission standard is the applicable emission standard for low load combustion turbines. [40 CFR 60.5540a(a)(8) and (a)(8)(i)]

w. To demonstrate compliance with the applicable CO_2 emission standard, for the initial and each subsequent 12-operating-month compliance period, the CO_2 mass emissions rate for the affected EGU must be determined according to the procedures specified in 40 CFR 60.5540a(a)(1) through (8) and must be less than or equal to the BACT limit codified under **2. Emission Limitations** a. and the applicable CO_2 emissions standard in Table 1 to 40 CFR 60, Subpart TTTTa. [401 KAR 51:017 and 40 CFR 60.5540a(b)]

x. If the permittee is the owner or operator of a new or reconstructed stationary combustion turbine operating in the base load subcategory, are installing add-on controls, and are unable to comply with the applicable Phase 2 CO_2 emission standard specified in Table 1 to 40 CFR 60, Subpart TTTTa due to circumstances beyond the permittee's control, the permittee may request a compliance date extension of no longer than one year beyond the effective date of January 1, 2032, and may only receive an extension once. The extension request must contain a demonstration of necessity that includes the information specified in 40 CFR 60.5540a(c)(1). [40 CFR 60.5540a(c)]

y. The permittee must monitor on a continuous basis the catalyst inlet temperature in order to comply with the operating limitations in Table 2 and as specified in Table 5 of 40 CFR 63, Subpart YYYY. [40 CFR 63.6125(a)]

i. For a stationary combustion turbine that is required to comply with the emissions limitation for formaldehyde and is using an oxidation system, the permittee shall maintain the 4-hour rolling average of the catalyst inlet temperature within the range suggested by the catalyst manufacturer. The permittee is not required to use the catalyst inlet temperature data that is recorded during engine startup in the calculations of the 4- hour rolling average catalyst inlet temperature. [40 CFR 63.6125(a) and Table 2, Item 1, of 40 CFR 63, Subpart YYYY]

ii. Initial compliance is demonstrated if the average formaldehyde concentration meets the emission limitations specified in Table 1 of 40 CFR 63, Subpart YYYY. [40 CFR 63.6110, 63.6125, 63.6130, and Table 4 40 CFR 63, Subpart YYYY]

iii. Continuous compliance with the operating limit is demonstrated by continuously monitoring the inlet temperature to the catalyst and maintaining the 4-hour rolling average of the inlet temperature within the range suggested by the catalyst manufacturer. [40 CFR 63.6135, 63.6140(a), and Table 5, Item 1 of 40 CFR 63, Subpart YYYY]

z. Except for monitor malfunctions, associated repairs, and required quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments of the monitoring system), the permittee must conduct all parametric

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

monitoring at all times the stationary combustion turbine is operating. [40 CFR 63.6135(a)]

aa. The permittee shall not use data recorded during monitor malfunctions, associated repairs, and required quality assurance or quality control activities for meeting the requirements of 40 CFR 63, Subpart YYYY, including data averages and calculations. The permittee must use all the data collected during all other periods in assessing the performance of the control device or in assessing emissions from the turbine. [40 CFR 63.6135(b)]

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

a. The permittee shall maintain records of the hours of operation and the amount of natural gas combusted (in MMscf) in both "fired" and "unfired" modes on a monthly basis. [401 KAR 52:020, Section 10]

b. The permittee shall maintain records of the number and duration of startups and shutdowns and type of startup (cold, warm, or hot) on a monthly basis. [401 KAR 52:020, Section 10]

c. The permittee shall keep records of the HRSG with DBs' manufacturer's recommended procedures for startup and shutdown, any instance in which the recommended procedures were not followed, and any corrective action taken. [401 KAR 52:020, Section 10]

d. The permittee shall maintain records of the following: [401 KAR 51:017 and 401 KAR 52:020, Section 10]
   i. The manufacturer's specifications for the oxidation catalyst and SCR;

   ii. CO emissions (in ppmvd) on a rolling 24-hour basis, excluding startups and shutdowns;

   iii. NO_x emissions (in ppmvd) on a rolling 24-hour basis, excluding startups and shutdowns;

   iv. CO, NO_x, PM/PM_{10}/$PM_{2.5}$, VOC, and CO_2e emissions (in tons) on a monthly and 12-month rolling total basis, including startups and shutdowns;

   v. All adjustments and maintenance performed on the air pollution control and monitoring equipment;

   vi. All CEMS calibration checks for a period of five years; and

   vii. The GCOP plan and any revisions.

e. The permittee shall maintain records of all readings of the flue gas flow rate, inlet temperature to the oxidation catalyst and SCR, ammonia injection rate, and pressure drop across the catalyst. [401 KAR 52:020, Section 10]

f. The permittee shall maintain on-site records of the fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the total sulfur content for natural gas used at all times does not exceed 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input nor 0.5 grains of sulfur per 100 dry standard cubic feet to demonstrate compliance with the 40 CFR 60, Subpart KKKKa SO_2 emission limit and the

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BACT limit for $PM/PM_{10}/PM_{2.5}$ (filterable + condensable) and H_2SO_4. [401 KAR 51:017 and 40 CFR 60.4372a(a), 40 CFR 60.4372a(b), and 40 CFR 60.4390a(f)]

g. At a minimum, non-out-of-control (NO_x) CEMS hourly averages shall be obtained for 90 percent of all operating hours on a 30-operating-day rolling average basis. [40 CFR 60.4345a(g)]

h. For each operating hour in which an hourly average is obtained, the data acquisition and handling system must calculate and record the hourly average NO_x emissions in units of lb/MMBtu or lbs, as applicable, using the appropriate equation from EPA Method 19 in Appendix A-7 to 40 CFR 60, Subpart KKKKa For any hour in which the hourly average O_2 concentration exceeds 19.0 percent O_2 (or the hourly average CO_2 concentration is less than 1.0 percent CO_2), a diluent cap value of 19.0 percent O_2 or 1.0 percent CO_2 (as applicable) may be used in the emission calculations. [40 CFR 60.4350a(c)]

i. Data used to meet the requirements of 40 CFR 60, Subpart KKKKa shall not include substitute data values derived from the missing data procedures of 40 CFR part 75, nor shall the data be bias adjusted according to the procedures of 40 CFR part 75. For units complying with the 12-calendar-month mass-based standard, emissions for hours of missing data shall be estimated by using the average emissions rate of non-out-of-control hours within ±10 percent of the hour of missing data within the 12-calendar-month period. If non-out-of-control data is not available, the maximum hourly emissions rate during the 12-calendar-month period shall be used. [40 CFR 60.4350a(d)]

j. All required fuel flow rate, steam flow rate, temperature, pressure, and megawatt data must be reduced to hourly averages. However, for any periods during which the flow, watt, steam pressure, or steam temperature monitors (as applicable) are out-of-control, the data points are not used in determining the appropriate hourly average value. [40 CFR 60.4350a(e)]

k. Calculate the hourly average NO_x emissions rate, in units of the emissions standard under 40 CFR 60.4320a, using lb/MMBtu or ppm for units complying with the input-based standard, using lbs for units complying with the mass-based standard, or lb/MWh or kg/MWh for units complying with the output-based standard: [40 CFR 60.4350a(f)]

   i. The gross or net energy output is calculated as the sum of the total electrical and mechanical energy generated by the combustion turbine engine; the additional electrical or mechanical energy (if any) generated by the steam turbine following the heat recovery steam generating unit; the total useful thermal energy output that is not used to generate additional electricity or mechanical output, expressed in equivalent MWh, minus the auxiliary load as calculated using Equations 1 and 2 to 40 CFR 60.4350a(f)(1): [40 CFR 60.4350a(f)(1)]

$$P = \frac{(Pe)_t}{T} + \frac{(Pe)_c}{T} - Pe_A + P_S + P_O \qquad \text{(Eq. 1)}$$

Where:

P = Gross or net energy output of the CT in MWh;

$(Pe)_t$ = Electrical or mechanical energy output of the CT in MWh;

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$(Pe)_c$= Electrical or mechanical output (if any) of the steam turbine in MWh;
Pe_A= Electric energy used for any auxiliary loads in MWh (only applicable to owners/operators electing to demonstrate compliance on a net output basis);
P_S = Useful thermal energy of the steam, measured relative to ISO conditions, not used to generate additional electric or mechanical output, in MWh;
P_O = Other useful heat recovery, measured relative to ISO conditions, not used for steam generation or performance enhancement of the CT; and
T = Electric Transmission and Distribution Factor. Equal to 1.0 for all other (non-CHP) combustion turbines.

$$P_S = \frac{Q_m \times H}{3.413 \times 10^6 Btu/MWh} \quad \text{(Eq. 2)}$$

Where:
P_S = Useful thermal energy of the steam, measured relative to ISO conditions, not used to generate additional electric or mechanical output, in MWh;
Q_m = Measured steam flow in lb;
H = Enthalpy of the steam at measured temperature and pressure relative to ISO conditions, in Btu/lb; and
3.413×10^6 = Conversion factor from Btu to MWh.

l. For each stationary combustion turbine demonstrating compliance on a heat input-based emissions standard, excess NO_x emissions are determined on a 4-operating-hour averaging period basis using the NO_x CEMS data and procedures specified in 40 CFR 60.4350a(g)(1) and (2) as applicable to the NO_x emissions standard in Table 1 to 40 CFR 60, Subpart KKKKa. [40 CFR 60.4350a(g)]

i. For each 4-operating-hour period, compute the 4-operating-hour rolling average NO_x emissions as the heat input weighted average of the hourly average of NO_x emissions for a given operating hour and the 3 operating hours preceding that operating hour using the applicable equation in 40 CFR 60.4350a(g)(2). Calculate a 4-operating-hour rolling average NO_x emissions rate for any 4-operating-hour period when you have valid CEMS data for at least 3 of those hours (*e.g.,* a valid 4-operating-hour rolling average NO_x emissions rate cannot be calculated if 1 or more continuous monitors was out-of-control for the entire hour for more than 1 hour during the 4-operating-hour period). [40 CFR 60.4350a(g)(1)]

ii. If the permittee elects to comply with the applicable heat input-based emissions rate standard, calculate both the 4-operating-hour rolling average NO_x emissions rate and the applicable 4-operating-hour rolling average NO_x emissions standard, calculated using hourly values in Table 1 to 40 CFR 60, Subpart KKKKa, using Equation 4 to 40 CFR 60.4350(g)(2). [40 CFR 60.4350a(g)(2)]

$$E = \frac{\sum_{i=1}^{4}(E_i \times Q_i)}{\sum_{i=1}^{4} Q_i} \quad \text{(Eq. 4)}$$

Where:
E = 4-operating-hour rolling average NO_x emissions (lb/MMBtu or ng/J);
E_i = Hourly average NO_x emissions rate or emissions standard for operating hour

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"i" (lb/MMBtu or ng/J); and

Q_i = Total heat input to stationary combustion turbine for operating hour "i" (MMBtu or J as appropriate).

m. For each combustion turbine demonstrating compliance on an output-based standard, the permittee must determine excess emissions on a 30-operating-day rolling average basis. The measured emissions rate is the NO_x emissions measured by the CEMS for a given operating day and the 29 operating days preceding that day. Once each day, calculate a new 30-operating-day average measured emissions rate using all hourly average values based on non-out-of-control NO_x emission data for all operating hours during the previous 30-operating-day operating period. Report any 30-operating-day periods for which the permittee has less than 90 percent data availability as monitor downtime. If the permittee elects to comply with the applicable output-based emissions rate standard, calculate the measured emissions rate using Equation 5 to 40 CFR 60.4350a(h)(1) and calculate the applicable emissions standard using Equation 6 to 40 CFR 60.4350a(h)(1). If the permittee elects to comply with the applicable output-based emissions rate standard and determine the heat input on an hourly basis, calculate the 30-operating-day rolling average NO_x emissions rate using Equation 5, and determine the applicable 30-operating-day rolling average NO_x emissions standard, calculated using values in Table 1 to 40 CFR 60, Subpart KKKKa, using Equation 6. Hours are not subcategorized by load for the purpose of determining the applicable output-based standard. The emissions standard for all hours, regardless of load, is the otherwise applicable full load emissions standard. [40 CFR 60.4350a(h)(1)]

$$E = \frac{\sum_{i=1}^{n}(E_i \times Q_i)}{\sum_{i=1}^{n} P_i} \quad \text{(Eq. 5)}$$

Where:

E = 30-operating-day average NO_x measured emissions rate from CT (lb/MWh or ng/J);

E_i = Hourly average NO_x emissions rate or emissions standard for non-out-of-control operating hour "i" (lb/MMBtu or ng/J);

Q_i = Total heat input to stationary combustion turbine for non-out-of-control operating hour "i" (MMBtu or J as appropriate);

P_i = Total gross or net energy output from CT for non-out-of-control operating hour "i" (MWh or J); and

n = Total number of operating non-out-of-control hours in the 30-operating-day period.

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$$E = E_{NG} \times \frac{H_{NG}}{H_T} + E_{non-NG} \times \frac{H_{non-NG}}{H_T} \quad \text{(Eq. 6)}$$

Where:

E = 30-operating-day rolling NO_x emissions standard (lb/MWh or kg/MWh);

E_{NG} = 30-operating-day emissions standard for natural gas-fired combustion turbines (lb/MWh or kg/MWh);

E_{non-NG} = 30-operating-day emissions standard for non-natural gas-fired combustion turbines (lb/MWh or kg/MWh);

H_{NG} = Hours of operation combusting natural gas during the 30-operating-day period;

H_{non-HG} = Hours of operation combusting non-natural gas fuels during the 30-operating-day period; and

H_T = Total hours of operation during the 30-operating-day period.

n. If the permittee elects to comply with the applicable output-based emissions rate standard and elects to not determine the heat input on an hourly basis, the applicable 30-operating-day emissions rolling NO_x standard is the most stringent standard applicable to the combustion turbine. The 30-operating-day rolling NO_x emissions rate is determined as the sum of the hourly emissions divided by the sum of the gross or net output over the 30-operating-day period. [40 CFR 60.4350a(h)(2)]

o. For each combustion turbine demonstrating compliance on a mass-based standard, the permittee must determine excess NO_x emissions on both a rolling 4-operating-hour and rolling 12-calendar-month basis using the NO_x CEMS data and procedures specified in 40 CFR 60.4350a(i)(1) through (4) as applicable to the NO_x emissions standard in Table 2 to 40 CFR 60, Subpart KKKKa. In addition, during system emergencies each combustion turbine must determine excess NO_x emissions using the procedures specified in 40 CFR 60.4350a(i)(5). [40 CFR 60.4350a(i)]

i. For each 4-operating-hour period, compute the 4-operating-hour rolling NO_x emissions as the sum of the hourly NO_x emissions for a given operating hour and the 3 operating hours preceding that operating hour. Calculate a 4-operating-hour NO_x emissions rate for any 4-operating-hour period when you have valid CEMS data for at least 3 of those hours (*e.g.,* a valid 4-operating-hour rolling NO_x emissions rate cannot be calculated if 1 or more continuous monitors was out-of-control for the entire hour for more than 1 hour during the 4-operating-hour period). [40 CFR 60.4350a(i)(1)]

ii. Calculate the applicable 4-operating-hour rolling NO_x emissions standard, calculated using hourly values in Table 2 to 40 CFR 60, Subpart KKKKa, using Equation 7 to 40 CFR 60.4350a(i)(2). [40 CFR 60.4350a(i)(2)]

$$E = \sum_{i=1}^{4}(E_i) \quad \text{(Eq. 7)}$$

Where:

E = 4-operating hour rolling NO_x emissions (kg or lbs); and

E_i = Hourly NO_x emissions rate or emissions standard for operating hour "i" (kg or lbs).

iii. For each 12-calendar-month period, compute the 12-calendar-month rolling NO_x

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emissions as the sum of the hourly NO_x emissions for a given month and the 11 calendar months preceding the calendar month. Emissions during system emergencies are not included when calculating the 12-calendar-month emissions rate. [40 CFR 60.4350a(i)(3)]

iv. Calculate the applicable 12-calendar-month rolling NO_x emissions standard, calculated using hourly values in Table 2 to 40 CFR 60, Subpart KKKKa, using Equation 8 to 40 CFR 60.4350a(i)(4) (See Eq. 6 above). Heat input during system emergencies is not included when calculating the 12-calendar-month emissions standard. [40 CFR 60.4350a(i)(4)]

v. During system emergencies during which the owner or operator elects to not include emissions or heat input in the 12-calendar month calculations, the applicable average natural gas-fired emissions standard is 0.83 lb NO_x/MW-rated output or the current emissions rate necessary to comply with the 12-calendar month natural gas-fired emissions standard of 0.48 tons NO_x/MW-rated output whichever is more stringent. For example, if a combustion turbine operated for 4,000 hours during the current 12-calendar month period the applicable average natural gas-fired emissions standard during the system emergency would be 0.24 lb NO_x/MW-rated output. [40 CFR 60.4350a(i)(5)]

p. If the permittee elects to demonstrate compliance with a SO_2 emissions standard according to 40 CFR 60.4333a(d)(3), the permittee must maintain on-site records (such as a current, valid purchase contract, tariff sheet, or transportation contract) documenting that total sulfur content for the fuel combusted in the stationary combustion turbine at all times does not exceed the conditions specified in 40 CFR 60.4372a(b) through (e), as applicable to the stationary combustion turbine. [40 CFR 60.4372a(a)]

i. The fuel combusted must have a potential SO_2 emissions rate of 26 ng/J (0.060 lb/MMBtu) heat input or less. [40 CFR 60.4372a(b)]

ii. Representative fuel sampling data following the procedures specified in Section 2.3.1.4 or 2.3.2.4 in Appendix D to 40 CFR part 75 documenting that the fuel meets the 40 CFR part 75 requirements to be considered either pipeline natural gas or natural gas. The stationary combustion turbine may not cause to be discharged into the atmosphere any gases that contain SO_2 in excess of 110 ng SO_2/J (0.90 lb SO_2/MWh) gross energy output or 26 ng SO_2/J. [40 CFR 60.4372a(e) and (e)(1)]

q. The permittee must maintain records of the information used to demonstrate compliance with 40 CFR 60, Subpart KKKKa as specified in 40 CFR 60.7. [40 CFR 60.4390a(a)]

r. If the permittee demonstrates compliance using the output-based standard, the permittee must maintain concurrent records of the total gross or net energy output and emissions data. [40 CFR 60.4390a(d)]

s. The permittee must maintain records of the information used to demonstrate compliance with 40 CFR 60, Subpart TTTTa as specified in 40 CFR 60.7(b) and (f). [40 CFR 60.5560a(a)]

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t. The permittee must follow the applicable recordkeeping requirements and maintain records as required under 40 CFR 75, Subpart F. [40 CFR 60.5560a(b)(1)]

u. The permittee must keep records of the calculations performed to determine the hourly and total CO_2 mass emissions (tons) for: [40 CFR 60.5560a(c)]
   i. Each operating month (for all affected EGUs); and [40 CFR 60.5560a(c)(1)]

   ii. Each compliance period, including, each 12-operating-month compliance period. [40 CFR 60.5560a(c)(2)]

v. Consistent with 40 CFR 60.5520a, the permittee must keep records of the applicable data recorded and calculations performed used to determine the affected EGU's gross or net energy output for each operating month. [40 CFR 60.5560a(d)]

w. The permittee must keep records of the calculations performed to determine the percentage of valid CO_2 mass emission rates in each compliance period. [40 CFR 60.5560a(e)]

x. The permittee must keep records of the calculations performed to assess compliance with the BACT CO_2 limit codified under **2. Emission Limitations** a. and each applicable CO_2 mass emissions standard in Table 1 to 40 CFR 60, Subpart TTTT. [401 KAR 51:017 and 40 CFR 60.5560a(f)]

y. The permittee must keep records of the calculations performed to determine any site-specific carbon-based F-factors used in the emissions calculations (if applicable). [40 CFR 60.5560a(g)]

z. The permittee must keep records of electric sales to determine the applicable subcategory. [40 CFR 60.5560a(h)]

aa. The permittee must keep the records listed in 40 CFR 60.5560a(i)(1) through (3) to demonstrate that the affected facility operated during a system emergency. [40 CFR 60.5560a(i)]
   i. Documentation that the system emergency to which the affected EGU was responding was in effect from the entity issuing the alert and documentation of the exact duration of the system emergency; [40 CFR 60.5560a(i)(1)]

   ii. Documentation from the entity issuing the alert that the system emergency included the affected source/region where the affected facility was located; and [40 CFR 60.5560a(i)(2)]

   iii. Documentation that the affected facility was instructed to increase output beyond the planned day-ahead or other near-term expected output and/or was asked to remain in operation outside its scheduled dispatch during emergency conditions from a Reliability Coordinator, Balancing Authority, or Independent System Operator/Regional Transmission Organization. [40 CFR 60.5560a(i)(3)]

bb. The permittee's records required by 40 CFR 60, Subpart TTTTa shall be in a form suitable and readily available for expeditious review. [40 CFR 60.5565a(a)]

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

cc. The permittee shall maintain each record required by 40 CFR 60, Subpart TTTTa for 5 years after the date of conclusion of each compliance period. [40 CFR 60.5565a(b)]

dd. The permittee shall maintain each record required by 40 CFR 60, Subpart TTTTa on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 60.7. Records that are accessible from a central location by a computer or other means that instantly provide access at the site meet this requirement. The permittee may maintain the records off site for the remaining year(s) as required by 40 CFR 60, Subpart TTTTa. [40 CFR 60.5565a(c)]

ee. The permittee must develop and implement a CMS quality control program that includes written procedures for CMS according to 40 CFR 63.8(d)(1) through (2). The permittee must keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of 40 CFR part 63, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the permittee must keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under 40 CFR 63.8(d)(2). [40 CFR 63.6125(e)]

ff. The permittee must maintain records of the inlet temperature to the oxidation catalyst and the 4-hour rolling average of the inlet temperature. [40 CFR 63.6155(c)]

gg. The permittee must keep the records as described in 40 CFR 63.6155(a)(1) through (7): [40 CFR 63.6155(a)]

i. A copy of each notification and report submitted to comply with 40 CFR 63, Subpart YYYY, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.6155(a)(1)]

ii. Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(i). [40 CFR 63.6155(a)(2)]

iii. Records of all maintenance on the air pollution control equipment as required in 40 CFR 63.10(b)(2)(ii). [40 CFR 63.6155(a)(5)]

iv. Records of the date, time, and duration of each startup period, recording the periods when the affected source was subject to the standard applicable to startup. [40 CFR 63.6155(a)(6)]

v. Keep records as follows: [40 CFR 63.6155(a)(7)]

A. Record the number of deviations. For each deviation, record the date, time, cause, and duration of the deviation. [40 CFR 63.6155(a)(7)(i)]

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

B. For each deviation, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions. [40 CFR 63.6155(a)(7)(ii)]

C. Record actions taken to minimize emissions in accordance with 40 CFR 63.6105(c), and any corrective actions taken to return the affected unit to its normal or usual manner of operation. [40 CFR 63.6155(a)(7)(iii)]

hh. If the permittee uses any quantity of distillate oil to fire any new or existing stationary combustion turbine, the permittee must keep records of the daily fuel usage monitors. [40 CFR 63.6155(b)]

ii. Any records required to be maintained by 40 CFR part 63 that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to the Division or the EPA as part of an on-site compliance evaluation. [40 CFR 63.6155(d)]

jj. The permittee must maintain all applicable records in such a manner that they can be readily accessed and are suitable for inspection according to 40 CFR 63.10(b)(1). The permittee must keep each record for 5 years following the date of each occurrence, measurement, corrective action, report, or record. The permittee must retain the records of the most recent 2 years on site, or the records must be accessible on site. The records for the remaining 3 years may be retained off site. [40 CFR 63.6160]

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

a. The permittee shall submit the results following the procedures in 40 CFR 63.9(k) within 60 days after the date of completing each CEMS performance evaluation that includes a RATA. [401 KAR 51:017]

b. If a malfunction occurs during the reporting period, the compliance report shall include the starting and ending date and time, the duration (in hours), and a brief description for each malfunction that caused or may have caused any applicable emission limitation to be exceeded. The report shall also include a description of any actions taken to minimize emissions or to correct a malfunction. If there were no malfunctions or deviations during the reporting period, the permittee shall provide a statement that there were no deviations from the emission or operating limitations during the reporting period. [401 KAR 51:017]

c. The permittee shall report all 24-hour rolling averages, 12-month rolling averages and 3-hour block averages or totals, as appropriate, calculated to comply with the 401 KAR 51:017 BACT limitations on a semiannual basis. [401 KAR 52:020, Section 10]

d. An owner or operator of a stationary combustion turbine that elects to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under 40 CFR 60, Subpart KKKKa, must submit reports of excess emissions and monitor downtime, according to 40 CFR 60.7(c). Excess emissions must be reported for all periods of unit

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

operation, including startup, shutdown, and malfunction. [40 CFR 60.4375a(a)]

e. The notification requirements of 40 CFR 60.8 apply to the initial and subsequent performance tests. [40 CFR 60.4375a(b)]

f. Within 60 days after the date of completing each performance test or continuous emissions monitoring systems (CEMS) performance evaluation that includes a relative accuracy test audit (RATA), the permittee must submit the results following the procedures specified in 40 CFR 60.4375a(g). The permittee must submit the report in a file format generated using the EPA's Electronic Reporting Tool (ERT). Alternatively, the permittee may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website (*https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert*) accompanied by the other information required by 40 CFR 60.8(f)(2) in PDF format. [40 CFR 60.4375a(e)]

g. The permittee must submit to the Administrator semiannual reports of the following recorded information. Beginning on January 15, 2027, or once the report template for 40 CFR 60, Subpart KKKKa has been available on the Compliance and Emissions Data Reporting Interface (CEDRI) website (*https://www.epa.gov/electronic-reporting-air-emissions/cedri*) for one year, whichever date is later, submit all subsequent reports using the appropriate electronic report template on the CEDRI website for 40 CFR 60, Subpart KKKKa and following the procedure specified in 40 CFR 60.4375a(g). The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated State agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in 40 CFR 60, Subpart KKKKa, regardless of the method in which the report is submitted. [40 CFR 60.4375a(f)]

h. If the permittee is required to submit notifications or reports following the procedure specified in 40 CFR 60.4375a(g), the permittee must submit notifications or reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). The EPA will make all the information submitted through CEDRI available to the public without further notice to the permittee. Do not use CEDRI to submit information the permittee claims as CBI. Although EPA does not expect persons to assert a claim of CBI, if the permittee wishes to assert a CBI claim for some of the information in the report or notification, the permittee must submit a complete file in the format specified in 40 CFR 60, Subpart KKKKa, including information claimed to be CBI, to the EPA following the procedures in 40 CFR 60.4375a(g)(1) and (2). [40 CFR 60.4375a(g)]

i. If the permittee is required to electronically submit a report through CEDRI in the EPA's CDX, the permittee may assert a claim of EPA system outage for failure to timely comply with that reporting requirement. To assert a claim of EPA system outage, the permittee must meet the requirements outlined in 40 CFR 60.4375a(h)(1) through (7). [40 CFR 60.4375a(h)]

j. If the permittee is required to electronically submit a report through CEDRI in the EPA's

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

CDX, the permittee may assert a claim of *force majeure* for failure to timely comply with that reporting requirement. To assert a claim of *force majeure,* the permittee must meet the requirements outlined in 40 CFR 60.4375a(i)(1) through (5). [40 CFR 60.4375a(i)]

k. Any records required to be maintained by 40 CFR 60, Subpart KKKKa that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. [40 CFR 60.4375a(j)]

l. For reports required under 40 CFR 60.4375a(a), periods of excess emissions and monitor downtime for stationary combustion turbines using a CEMS, excess emissions are reported as specified in 40 CFR 60.4380a(b)(1) and (2). [40 CFR 60.4380a(b)]
   i. An excess emission that must be reported is any unit operating period in which the 4-operating-hour average NO_x emissions rate, 30-operating-day rolling average NO_x emissions rate, 4-hour mass-based emissions rate, or the 12-calendar-month mass-based emissions rate exceeds the applicable emissions standard in 40 CFR 60.4320a as determined in 40 CFR 60.4350a. [40 CFR 60.4380a(b)(1)]

   ii. A period of monitor downtime that must be reported is any operating hour in which the data for any of the following parameters that the permittee uses to calculate the emission rate, as applicable, used to determine compliance, are either missing or out-of-control: NO_x concentration, CO_2 or O_2 concentration, stack flow rate, heat input rate, steam flow rate, steam temperature, steam pressure, or megawatts. The permittee is only required to monitor parameters used for compliance purposes. [40 CFR 60.4380a(b)(2)]

m. If the permittee chooses the option to maintain records of the fuel sulfur content, excess emissions are defined as any period during which the permittee combusts a fuel that does not have appropriate fuel records or that fuel contains sulfur greater than the applicable standard. [40 CFR 60.4385a(b)]

n. Consistent with 40 CFR 60.7(c), all reports required under 40 CFR 60.7(c) must be electronically submitted via CEDRI by the 30th day following the end of each 6-month period. [40 CFR 60.4395a]

o. The permittee must submit fuel records (such as a current, valid purchase contract, tariff sheet, transportation contract, or results of a fuel analysis) to satisfy the requirements of 40 CFR 60.8. [40 CFR 60.4415a(a)]

p. The permittee must prepare and submit the notifications specified in 40 CFR 60.7(a)(1) and (3) and 40 CFR 60.19, as applicable [40 CFR 60.5550a(a)]

q. The permittee must prepare and submit notifications specified in 40 CFR 75.61, as applicable. [40 CFR 60.5550a(b)]

r. The permittee must prepare and submit reports according to 40 CFR 60.5555a(a) through

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

(d), as applicable: [40 CFR 60.5555a(a)]

i. The permittee must submit electronic quarterly reports as follows. After the permittee has accumulated the first 12-operating months for the affected EGU, the permittee must submit a report for the calendar quarter that includes the twelfth operating month no later than 30 days after the end of that quarter. Thereafter, the permittee must submit a report for each subsequent calendar quarter, no later than 30 days after the end of the quarter. [40 CFR 60.5555a(a)(1)]

ii. In each quarterly report, the permittee must include the following information, as applicable: [40 CFR 60.5555a(a)(2)]
   A. Each rolling average CO_2 mass emissions rate for which the last (twelfth) operating month in a 12-operating-month compliance period falls within the calendar quarter. The permittee must calculate each average CO_2 mass emissions rate for the compliance period according to the procedures in 40 CFR 60.5540a. The permittee must report the dates (month and year) of the first and twelfth operating months in each compliance period for which the permittee performed a CO_2 mass emissions rate calculation. If there are no compliance periods that end in the quarter, the permittee shall include a statement to that effect; [40 CFR 60.5555a(a)(2)(i)]

   B. If one or more compliance periods end in the quarter, the permittee must identify each operating month in the calendar quarter where the EGU violated the applicable CO_2 emission standard; [40 CFR 60.5555a(a)(2)(ii)]

   C. If one or more compliance periods end in the quarter and there are no violations for the affected EGU, the permittee must include a statement indicating this in the report; [40 CFR 60.5555a(a)(2)(iii)]

   D. The percentage of valid operating hours in each 12-operating-month compliance period described in 40 CFR 60.5555a(a)(1) (i.e., the total number of valid operating hours, as defined in 40 CFR 60.5540a(a)(1), in that period divided by the total number of operating hours in that period, multiplied by 100 percent); [40 CFR 60.5555a(a)(2)(iv)]

   E. Consistent with 40 CFR 60.5520a, the CO_2 emissions standard (as identified in Table 1 to 40 CFR 60, Subpart TTTTa) with which the affected EGU must comply; and [40 CFR 60.5555a(a)(2)(v)]

   F. Consistent with 40 CFR 60.5520a, an indication whether or not the hourly gross or net energy output $\left(P_{gross/net}\right)$ values used in the compliance determinations are based solely upon gross electrical load. [40 CFR 60.5555a(a)(2)(vi)]

iii. In the final quarterly report of each calendar year, the permittee must include the following: [40 CFR 60.5555a(a)(3)]
   A. Consistent with 40 CFR 60.5520a, gross energy output or net energy output sold to an electric grid, as applicable to the units of the emission standard, over the four quarters of the calendar year; and [40 CFR 60.5555a(a)(3)(i)]

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

B. The potential electric output of the EGU. [40 CFR 60.5555a(a)(3)(ii)]

s. The permittee must submit all electronic reports required under 40 CFR 60.5555a(a) using the Emissions Collection and Monitoring Plan System (ECMPS) Client Tool provided by the Clean Air Markets Division in the Office of Atmospheric Programs of EPA. [40 CFR 60.5555a(b)]

t. The permittee must meet all applicable reporting requirements and submit reports as required under 40 CFR 75, Subpart G. [40 CFR 60.5555a(c)(1)]

u. The permittee must begin submitting the quarterly electronic emissions reports described in 40 CFR 60.5555a(c)(1) in accordance with 40 CFR 75.64(a), i.e., beginning with data recorded on and after the earlier of: [40 CFR 60.5555a(c)(3)(i)]
   i. The date of provisional certification, as defined in 40 CFR 75.20(a)(3) [40 CFR 60.5555a(c)(3)(i)(A)]; or

   ii. 180 days after the date on which the EGU commences commercial operation (as defined in 40 CFR 72.2). [40 CFR 60.5555a(c)(3)(i)(B)]

v. If any required monitoring system has not been provisionally certified by the applicable date on which emissions data reporting is required to begin under 40 CFR 60.5555a(c)(3), the maximum (or in some cases, minimum) potential value for the parameter measured by the monitoring system shall be reported until the required certification testing is successfully completed, in accordance with 40 CFR 75.4(j), 40 CFR 75.37(b), or 40 CFR 75, Appendix D, Section 2.4 (as applicable). Operating hours in which CO_2 mass emission rates are calculated using maximum potential values are not "valid operating hours" (as defined in 40 CFR 60.5540a(a)(1)) and shall not be used in the compliance determinations under 40 CFR 60.5540a. [40 CFR 60.5555a(c)(4)]

w. The reports required under 40 CFR 60.5555a(a) and (c)(1) shall be submitted by: [40 CFR 60.5555a(d)]
   i. The person appointed as the Designated Representative (DR) under 40 CFR 72.20; or [40 CFR 60.5555a(d)(1)]

   ii. The person appointed as the Alternate Designated Representative (ADR) under 40 CFR 72.22; or [40 CFR 60.5555a(d)(2)]

   iii. A person (or persons) authorized by the DR or ADR under 40 CFR 72.26 to make the required submissions. [40 CFR 60.5555a(d)(3)]

x. The permittee must report each instance in which they did not meet each emission limitation or operating limitation. The permittee must also report each instance in which they did not meet the requirements in Table 7 of 40 CFR 63, Subpart YYYY that apply. These instances are deviations from the emission and operating limitations in 40 CFR 63, Subpart YYYY. These deviations must be reported according to the requirements in 40 CFR 63.6150. [40 CFR 63.6140(b)]

y. The permittee must submit all of the notifications in 40 CFR 63.7(b) Notification of

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

Performance Testing and 40 CFR 63.7(c) Quality Assurance/Test Plan, 40 CFR 63.8(e) CMS Performance Evaluation (Except for 40 CFR 63.8(e)(5)(ii), which applies to COMS), 40 CFR 63.8(f)(4) Alternative Monitoring, and 40 CFR 63.9(b) Initial Notifications and 40 CFR 63.9(h) Notice of Compliance Status that apply by the dates specified. [40 CFR 60, Subpart A; 40 CFR 63.6145(a); and Table 7 of 40 CFR 63, Subpart YYYY]

z. The permittee must submit an Initial Notification not later than 120 calendar days after becoming subject to 40 CFR 63, Subpart YYYY. [40 CFR 63.6145(c)]

aa. The permittee must submit a notification of intent to conduct an initial performance test at least 60 calendar days before the initial performance test is scheduled to begin as required in 40 CFR 63.7(b)(1). [40 CFR 63.6145(e)]

bb. The permittee must submit the Notification of Compliance Status containing results of the initial compliance demonstration according to the following: The permittee must submit a Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii). For each performance test required to demonstrate compliance with the emission limitation for formaldehyde, the permittee must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test. [40 CFR 63.6130(b) and 40 CFR 63.6145(f)]

cc. **Compliance report**. The permittee must submit a semiannual compliance report according to Table 6 of 40 CFR 63, Subpart YYYY. The semiannual compliance report must contain the information described in 40 CFR 63.6150(a)(1) through (5). The semiannual compliance report, including the excess emissions and monitoring system performance reports of 40 CFR 63.10(e)(3), must be submitted by the dates specified in 40 CFR 63.6150(b)(1) through (5), unless the Administrator has approved a different schedule. The permittee must submit all subsequent reports to the EPA following the procedure specified in 40 CFR 63.6150(g). [40 CFR 63.6150(a)]

i. Company name and address. [40 CFR 63.6150(a)(1)]

ii. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. [40 CFR 63.6150(a)(2)]

iii. Date of report and beginning and ending dates of the reporting period. [40 CFR 63.6150(a)(3)]

iv. Report each deviation in the semiannual compliance report. Report the information specified in 40 CFR 63.6150(a)(5)(i) through (iv): [40 CFR 63.6150(a)(5)]

1. Report the number of deviations. For each instance, report the start date, start time, duration, and cause of each deviation, and the corrective action taken. [40 CFR 63.6150(a)(5)(i)]

2. For each deviation, the report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, a description of the method used to estimate the emissions. [40 CFR 63.6150(a)(5)(ii)]

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

3. Information on the number, duration, and cause for monitor downtime incidents (including unknown cause, if applicable, other than downtime associated with zero and span and other daily calibration checks), as applicable, and the corrective action taken. [40 CFR 63.6150(a)(5)(iii)]

4. Report the total operating time of the affected source during the reporting period. [40 CFR 63.6150(a)(5)(iv)]

dd. Dates of submittal for the semiannual compliance report are provided in 40 CFR 63.6150(b)(1) through (5). [40 CFR 63.6150(b)]

i. The first semiannual compliance report must cover the period beginning on the compliance date specified in 40 CFR 63.6095 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date specified in 40 CFR 63.6095. [40 CFR 63.6150(b)(1)]

ii. The first semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified in 40 CFR 63.6095. [40 CFR 63.6150(b)(2)]

iii. Each subsequent semiannual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. [40 CFR 63.6150(b)(3)]

iv. Each subsequent semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. [40 CFR 63.6150(b)(4)]

v. For each stationary combustion turbine that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established the date for submitting annual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in 40 CFR 63.6150(b)(1) through (4). [40 CFR 63.6150(b)(5)]

ee. If the permittee uses any quantity of distillate oil to fire any new or existing stationary combustion turbine, the permittee must submit an annual report according to Table 6 of 40 CFR 63, Subpart YYYY by the date specified unless the Administrator has approved a different schedule, according to the information described in 40 CFR 63.6150(d)(1) through (5). The permittee must report the data specified in 40 CFR 63.6150(e)(1) through (3). The permittee must submit all subsequent reports to the EPA following the procedure specified in 40 CFR 63.6150(g). [40 CFR 63.6150(e)]

i. The number of hours distillate oil was fired by each new or existing stationary combustion turbine during the reporting period. [40 CFR 63.6150(e)(1)]

ii. The operating limits provided in the federally enforceable permit, and any deviations from these limits. [40 CFR 63.6150(e)(2)]

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

iii. Any problems or errors suspected with the meters. [40 CFR 63.6150(e)(3)]

ff. **Performance test report.** Within 60 days after the date of completing each performance test required by 40 CFR 63, Subpart YYYY, the permittee must submit the results of the performance test (as specified in 40 CFR 63.6145(f)) following the procedures specified in 40 CFR 63.6150(f)(1) through (3). [40 CFR 63.6150(f)]

i. **Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (https://www.epa.gov/electronic-reportingair-emissions/electronic-reporting-tool-ert) at the time of the test**. Submit the results of the performance test to the EPA via the CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (***https://cdx.epa.gov***). The data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, the permittee may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. [40 CFR 63.6150(f)(1)]

ii. **Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test.** The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI. [40 CFR 63.6150(f)(2)]

iii. **Confidential business information (CBI).** If the permittee claims some of the information submitted under 40 CFR 63.6150(f)(1) is CBI, the permittee must submit a complete file, including information claimed to be CBI, to the EPA. The file must be generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in 40 CFR 63.6150(f)(1). [40 CFR 63.6150(f)(3)]

gg. The permittee must submit reports to the EPA via CEDRI, which can be accessed through the EPA's CDX (***https://cdx.epa.gov/).*** The permittee shall use the appropriate electronic report template on the CEDRI website (***https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri***) for 40 CFR 63, Subpart YYYY. The date report templates become available will be listed on the CEDRI website. The report must be submitted by the deadline specified in 40 CFR 63, Subpart YYYY, regardless of the method in which the report is submitted. If the permittee claims some of the information required to be submitted via CEDRI is CBI, submit a complete report, including information claimed to be CBI, to the EPA. The report must be generated using the appropriate form on the CEDRI website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham,

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

NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph. [40 CFR 63.6150(g)]

hh. The permittee may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. To assert a claim of EPA system outage, the permittee must meet the requirements outlined in 40 CFR 63.6150(h)(1) through (7). [40 CFR 63.6150(h)]

ii. The permittee may assert a claim of force majeure for failure to timely comply with the reporting requirement. To assert a claim of force majeure, the permittee must meet the requirements outlined in 40 CFR 63.6150(i)(1) through (5). [40 CFR 63.6150(i)]

7. Specific Control Equipment Operating Conditions:

a. The ammonia 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. The permittee shall monitor and maintain records of the temperature and ammonia injection rate for the SCR system. [401 KAR 52:020, Section 10]

c. See **Section E – Source Control Equipment Requirements** for additional requirements.

8. Compliance Certification Requirements:

Refer to **Section I – Compliance Schedule** for CAM compliance requirement.

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

Emission Units 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	
57 (CT NG – 07)	NG Preheater ETI Custom Built	2000	7.0 MMBtu/hr	

APPLICABLE REGULATIONS:

401 KAR 59:015, *New indirect heat exchangers*

401 KAR 63:002, Section (2)(4)(iiii), 40 C.F.R. 63.7480 through 63.7575, Tables 1 through 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. During a startup period or a shutdown period, the permittee shall meet the work practice standards established in Table 3 to 40 CFR 63, Subpart DDDDD. [401 KAR 59:015, Section 7(2)(a)]

   b. 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)]

   c. 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)]

   d. At all times, the permittee must 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)]

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

f. The permittee shall conduct a biennial or 5-year performance tune-up according to 40 CFR 63.7540(a)(11) or (12), respectively. 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)]

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)]

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

A. 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)]

B. A description of any corrective actions taken as part of the tune-up; and [40 CFR 63.7540(a)(10)(vi)(B)]

C. 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)]

vii. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 CFR 63.7540(a)(13)]

Compliance Demonstration Method:
See **6. Specific Reporting Requirements** d.

2. Emission 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. The permittee shall not cause emissions of particulate matter in excess of 0.10 lb/MMBtu. [401 KAR 59:015, Section 4(1)(b)]

c. The permittee 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, Section4(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. The permittee 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 Method*:**
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.]

e. See **Section D**, **Source Emission Limitations and Testing Requirements** for source-wide emission limitations.

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

3. Testing Requirements:
Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1]

4. Specific Monitoring Requirements:
The permittee shall monitor natural gas usage (in MMscf) for each unit on a monthly basis. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of natural gas usage (in MMscf) for each unit on a monthly basis. [401 KAR 52:020, Section 10]

b. The permittee must 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)]

c. Records of notifications and reports submitted to comply with 40 CFR 63 Subpart DDDDD and records of other compliance demonstrations and performance evaluations required in 40 CFR 63.10(b)(2)(viii) shall be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). [40 CFR 63.7560(a)]

i. 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. [40 CFR 63.7560(b)]

ii. The permittee shall keep each record on site, or they shall be accessible from on site (for example, through a computer network), 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). The permittee can keep the records off site for the remaining 3 years. [40 CFR 63.7560(c)]

6. Specific Reporting Requirements:

a. The permittee must 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 must be reported according to the requirements in 40 CFR 63.7550. [40 CFR 63.7540(b)]

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

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

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. A signed certification that the permittee has met all applicable work practice standards. [40 CFR 63.7545(e)(6)]

iii. If the permittee had a deviation from the work practice standard, the permittee must submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report. [40 CFR 63.7545(e)(7)]

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

   B. "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 must submit each report in Table 9 to 40 CFR 63, Subpart DDDDD that applies. [40 CFR 63.7550(a)]

d. 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)]

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

v. For each affected source that is subject to permitting regulations pursuant to 40 CFR 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), the permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established in the permit instead of according to the dates in 40 CFR 63.7550(b)(1) through (4). [40 CFR 63.7550(b)(5)]

e. 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)]

f. The permittee shall submit the reports according to the procedures specified in 40 CFR 63.7550(h)(1) through (3). [40 CFR 63.7550(h)]

g. See **Section F - Monitoring, Recordkeeping, and Reporting Requirements** for general reporting requirements.

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

Emission Units 59 and 60 Natural Gas Combustion Units Supporting NGCC System

Emission Unit	Description	Construction Commenced	Maximum Continuous Rating	Controls
59	Auxiliary Boiler	Proposed June 2026	95.52 MMBtu/hr	Low NO_x Burners & Flue Gas Recirculation (FGR)
60	Fuel Gas (Dewpoint) Preheater		15.65 MMBtu/hr	Low NO_x Burners

APPLICABLE REGULATIONS:

401 KAR 51:017, *Prevention of significant deterioration of air quality* (CO, NO_x, PM, PM_{10}, $PM_{2.5}$, VOC, H_2SO_4, and CO_2e)

401 KAR 59:015, *New indirect heat exchangers*

401 KAR 60:005, Section (2)(2)(d), 40 C.F.R. 60.40c through 60.48c (**Subpart Dc**), *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*

401 KAR 63:002, Section (2)(4)(iiii), 40 C.F.R. 63.7480 through 63.7575, Tables 1 through 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. The permittee shall only combust pipeline quality natural gas with a sulfur content of 0.5 grains per 100 dry standard cubic feet (gr/100dscf) or less. [401 KAR 51:017]

Compliance Demonstration Method:
Compliance shall be demonstrated according to **4. Specific Monitoring Requirements** a. and **5. Specific Recordkeeping Requirements** a.

b. The permittee shall operate and maintain low NO_x burners and FGR (for EU 59) designed to achieve the NO_x emission standards in **2. Emission Limitations** while operating at maximum load. [401 KAR 51:017]

Compliance Demonstration Method:
Compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements** c.

c. For EU 59, the permittee shall limit the hours of operation to 4,000 hours on a 12-month rolling total basis. [401 KAR 51:017]

Compliance Demonstration Method:
Compliance with the limit shall be demonstrated according to **4. Specific Monitoring Requirements** b. and **5. Specific Recordkeeping Requirements** b.

d. The permittee shall prepare and maintain for EUs 59 and 60 a good combustion and operations practices plan (GCOP) within 90 days of startup that defines, measures, and verifies the use of operational and design practices determined as BACT for minimizing

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

CO, NO_x, PM, PM_{10}, $PM_{2.5}$, VOC, H_2SO_4, and GHG emissions. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Division's inspection. The plan shall include but not be limited to: [401 KAR 51:017]

i. A list of combustion optimization practices and a means of verifying the practices have occurred;

ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred; and

iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.

Compliance Demonstration Method:
Compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements** d.

e. During a startup period or a shutdown period, the permittee shall comply with the work practice standards established in Table 3 to 40 CFR 63, Subpart DDDDD. [401 KAR 59:015, Section 7(2)(a)]

Compliance Demonstration Method:
Compliance shall be demonstrated according to **1. Operating Limitations** g.

f. The permittee must conduct an annual performance tune-up according to 40 CFR 63.7540(a)(10). Each annual tune-up specified in 40 CFR 63.7540(a)(10) must be conducted no more than 13 months after the previous tune-up. This frequency does not apply to units with continuous oxygen trim systems that maintain an optimum air to fuel ratio. [40 CFR 63.7500(a)(1) referencing Item 3. in Table 3 of 40 CFR 63, Subpart DDDDD; 40 CFR 63.7510(g) and 40 CFR 63.7515(d]

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

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

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)]

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)]
   A. 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)]

   B. A description of any corrective actions taken as part of the tune-up; and [40 CFR 63.7540(a)(10)(vi)(B)]

   C. 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)]

vii. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 CFR 63.7540(a)(13)]

viii. The permittee must demonstrate initial compliance with the applicable work practice standard upon startup of the boiler. The first annual tune-up must be no later than 13 months after the initial startup of the boiler. [40 CFR 63.7510(g)]

Compliance Demonstration Method:
Compliance shall be demonstrated according to **6. Specific Reporting Requirements** h.

g. At all times, the permittee must 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)]

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

2. Emission Limitations:

a. The permittee shall not exceed the following BACT emission limitations: [401 KAR 51:017]

Pollutant	EU 59 Limit (lb/MMBtu)	EU 59 Limit (tpy)	EU 60 Limit (lb/MMBtu)	EU 60 Limit (tpy)
CO	0.037	7.0	0.037	2.5
NO_x	0.036	7.0	0.036	2.5
$PM/PM_{10}/PM_{2.5}$ (filterable + condensable)	0.007	1.3	0.007	0.5
VOC	0.0052	1.0	0.008	0.5
CO_2e	114.0	21,797*	114.0	7,821*

*CO_2e utilizes Global Warming Potentials of 28 and 265 for CH_4 and N_2O, respectively
Note: BACT lb/MMBtu limits are 3-hr block averages and ton/yr limits are 12-month rolling totals.

Compliance Demonstration Method:

A. Compliance for EU 59 with the CO, NO_x, $PM/PM_{10}/PM_{2.5}$ (filterable + condensable), and VOC BACT limits shall be demonstrated with performance testing according to **3. Testing Requirements** a.

B. Continuous compliance with all BACT limits shall be demonstrated according to **1. Operating Limitations** a. through d.

b. The permittee shall not cause emissions of particulate matter (PM) in excess of 0.10 lb/MMBtu. [401 KAR 59:015, Section 4(1)(b)]

c. The permittee shall not cause emissions of PM 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; and [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 operating conditions shall be allowed, if 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. The permittee shall not cause emissions of sulfur dioxide (SO_2) in excess of 0.8 lb/MMBtu. [401 KAR 59:015, Section 5(1)(b)1.]

Compliance Demonstration Method:

These units are assumed to be in compliance with the applicable 401 KAR 59:015 PM, opacity and SO_2 standards while combusting natural gas.

3. Testing Requirements:

a. The permittee shall conduct an initial performance test on EU 59 to demonstrate compliance with the CO, NO_x, $PM/PM_{10}/PM_{2.5}$, and VOC BACT emission limitations using the following test method or alternate method approved by the Division. Subsequent performance tests shall be conducted once every five years. [401 KAR 51:017]

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

Pollutant	EPA Reference Method
CO	10
NO_x	7
$PM/PM_{10}/PM_{2.5}$	5 or 202
VOC	18, 25, or 25A

b. Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1 and 401 KAR 59:005, Section 2(2)]

4. Specific Monitoring Requirements:

a. The permittee shall monitor the sulfur content of the pipeline quality natural gas (in gr/100 dscf), based on fuel quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the fuel. As an alternative, a natural gas fuel sample may be obtained and analyzed, no less frequently than once per calendar year, by the owner or operator, an independent laboratory, or the fuel supplier. [401 KAR 52:020, Section 10]

b. For EU 59, the permittee shall monitor the hours of operation on a monthly basis. [401 KAR 52:020, Section 10]

c. The permittee shall monitor natural gas usage (in MMscf) on a monthly basis. [401 KAR 52:020, Section 10; 40 CFR 60.48c(g)(2)]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the sulfur content of the fuel (in gr/100dscf). [401 KAR 52:020, Section 10]

b. For EU 59, the permittee shall maintain records of the hours of operation on a monthly and 12-month rolling total basis. [401 KAR 52:020, Section 10]

c. The permittee shall maintain records of the design features, installation, recommended procedures, and maintenance for the low NO_x burners and FGR. [401 KAR 52:020, Section 10]

d. The permittee shall maintain records of the GCOP plan and any revisions. [401 KAR 52:020, Section 10]

e. The permittee shall maintain records of natural gas usage (in MMscf) on a monthly basis. The permittee shall maintain these records for a period of two years following the date of such record. [401 KAR 52:020, Section 10; 40 CFR 60.48c(g)(2) and 40 CFR 60.48c(i)]

f. 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)]

g. Records of notifications and reports submitted to comply with 40 CFR 63, Subpart

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

DDDDD and records of other compliance demonstrations and performance evaluations required in 40 CFR 63.10(b)(2)(viii) shall be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). [40 CFR 63.7560(a)]

i. 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. [40 CFR 63.7560(b)]

ii. The permittee shall keep each record on site, or they shall be accessible from on site (for example, through a computer network), 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). The permittee can keep the records off site for the remaining 3 years. [40 CFR 63.7560(c)]

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

a. The permittee shall submit notification of the date of construction or reconstruction and actual startup, as provided by 40 CFR 60.7. This notification shall include: [40 CFR 60.48c(a)]

i. The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility. [40 CFR 60.48c(a)(1)]

ii. The annual capacity factor at which the permittee anticipates operating the units based on all fuels fired and based on each individual fuel fired. [40 CFR 60.48c(a)(3)]

b. The permittee must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 CFR 63.7545(e). The permittee must submit a Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii). For the initial compliance demonstration for each boiler, the permittee must submit the Notification of Compliance Status before the close of business on the 60th day following the completion of all initial compliance demonstrations for all boiler or process heaters at the facility according to 40 CFR 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified as follows: [40 CFR 63.7530(f) and 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. A signed certification that the permittee has met all applicable work practice standards. [40 CFR 63.7545(e)(6)]

iii. If the permittee had a deviation from the work practice standard, the permittee must submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report. [40 CFR 63.7545(e)(7)]

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

iv. In addition to the information required in 40 CFR 63.9(h)(2), the notification of compliance status must include a certification of compliance signed by a responsible official stating: "This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR 63, Subpart DDDD at this site according to the procedures in 40 CFR 63.7540(a)(10)(i) through (vi)." [40 CFR 63.7545(e)(8) and (e)(8)(i)]

c. The permittee must report each instance in which the operating limit in Table 3 to 40 CFR 63, Subpart DDDDD was not met. These instances are deviations from the operating limits must be reported according to the requirements in 40 CFR 63.7550. [40 CFR 63.7540(b)]

d. The permittee must submit to the Administrator all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply by the dates specified. [40 CFR 63.7545(a)]

e. As specified in 40 CFR 63.9(b)(4) and (5), the permittee must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source. [40 CFR 63.7545(c)]

f. The permittee must submit each report in Table 9 to 40 CFR 63, Subpart DDDDD that applies. [40 CFR 63.7550(a)]

g. The permittee may submit only an annual compliance report as specified in 40 CFR 63.7550(b)(1) through (4), instead of a semi-annual compliance report, as follows: [40 CFR 63.7550(b)]

i. 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 year 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 compliance report must be postmarked or submitted no later than January 31. [40 CFR 63.7550(b)(2)]

iii. Annual compliance reports must cover the applicable 1-year period from January 1 to December 31. [40 CFR 63.7550(b)(3)]

iv. Annual compliance reports must be postmarked or submitted no later than January 31. [40 CFR 63.7550(b)(4)]

v. For each affected source that is subject to permitting regulations pursuant to 40 CFR 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), the permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established in the permit instead of according to the dates in 40 CFR 63.7550(b)(1) through (4). [40 CFR 63.7550(b)(5)]

h. The permittee must 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)]

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

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 tune-up according to 40 CFR 63.7540(a)(10). Include the date of the most recent burner inspection if it was not done annually 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)]

i. The permittee shall submit the reports according to the procedures specified in 40 CFR 63.7550(h)(1) through (3). [40 CFR 63.7550(h)]

j. See **Section F - Monitoring, Recordkeeping, and Reporting Requirements** for general reporting requirements.

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

Emission Units 41-44 **Existing Emergency Diesel Engines**

Emission Unit	Description	Manufacture Date	Maximum Continuous Rating	Construction Commenced	Fuel Rate
41	Caterpillar, Model 3306 (CT5)	2000	308 HP	2000	15.7 gal/hr
42	Perkins Engine, Model DP150P3 (CT6)	1999	230 HP	1999	11.7 gal/hr
43	Perkins Engine, Model DP150P3 (CT7)	1999	230 HP	1999	11.7 gal/hr
44	Cummins, Model 681A5.9-F-1 (CT Area Fire Pump)	1994	208 HP	1994	10.6 gal/hr

APPLICABLE REGULATION:

401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A **(Subpart ZZZZ)**, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*

1. Operating Limitations:

a. The permittee must comply with the emission limitations and other requirements in Table 2c to 40 CFR 63, Subpart ZZZZ that apply: [40 CFR 63.6602]

i. Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first, or according to an oil analysis program; [Item 1.a. and Footnote 2 of Table 2c to 40 CFR 63, Subpart ZZZZ]

ii. Inspect air cleaner every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; [Item 1.b. of Table 2c to 40 CFR 63, Subpart ZZZZ]

iii. Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; and [Item 1.c. of Table 2c to 40 CFR 63, Subpart ZZZZ]

iv. During periods of startup, the permittee must 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-startup emission limitations apply. [40 CFR 63.6625(h) and Item 1. of Table 2c to 40 CFR 63, Subpart ZZZZ]

b. 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)]

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

c. At all times the permittee must 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)]

d. The permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a 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)(2) and 63.6640(a) referencing Item 9. of Table 6 to 40 CFR 63, Subpart ZZZZ]

e. The permittee must operate the emergency stationary RICE according to the requirements in 40 CFR 63.6640(f)(1) through (4). 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, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 63.6640(f)(1) through (4), is prohibited. If the engine is not operated according to the requirements in 40 CFR 63.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR 63, Subpart ZZZZ and must 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) and (4) 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)]

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

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 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)]

f. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil and filter change requirement in Table 2c of 40 CFR 63, Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil and filter in Table 2c to 40 CFR 63, Subpart ZZZZ. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil and filter. If any of the limits are exceeded, the permittee must change the oil and filter 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 must change the oil and filter within 2 business days or before commencing operation, whichever is later. The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil and filter changes for the engine. The analysis program must 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. [401 KAR 50:045, Section 1]

4. Specific Monitoring Requirements:

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

b. The permittee must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of fuel usage (in gallons) on a monthly basis. [401 KAR 52:020, Section 10]

b. The permittee must keep the following records: [40 CFR 63.6655(a)]

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

i. A copy of each notification and report that is submitted to comply with 40 CFR 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted according to the requirement in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.6655(a)(1)]

ii. Records of the occurrence and duration (in hours) of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(2)]

iii. Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii). [40 CFR 63.6655(a)(3)]

iv. Records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(4)]

v. 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 63.6655(a)(5)]

c. The permittee must keep records of the maintenance conducted on the engines 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)(2)]

d. The permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 63.6655(f)(1)]

e. 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]

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

a. The permittee must report each instance in which the permittee did not meet **1. <u>Operating Limitations</u>** a. from Table 2c to 40 CFR 63, Subpart ZZZZ. These instances are deviations from the operating limitations in 40 CFR 63, Subpart ZZZZ and must be reported according to the requirements in 40 CFR 63.6650. [40 CFR 63.6640(b)]

b. The permittee must also report each instance in which the requirements in Table 8 to 40 CFR 63, Subpart ZZZZ that apply are not met. [40 CFR 63.6640(e)]

c. 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) and (h) are not required. [40 CFR 63.6645(a)(5)]

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

d. Beginning February 26, 2025 or one year after the report becomes available in CEDRI, whichever is later, submit all semiannual and annual subsequent compliance reports using the appropriate electronic report template on the CEDRI website (*https://www.epa.gov/electronic-reporting-air-emissions/cedri*) for 40 CFR 63, Subpart ZZZZ and following the procedure specified in 40 CFR 63.9(k), except any CBI must be submitted according to the procedures in 40 CFR 60.6645(h). The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this 40 CFR 63, Subpart ZZZZ, regardless of the method in which the report is submitted. [40 CFR 63.6650(i)]

e. See **Section F – Monitoring, Recordkeeping, and Reporting Requirements** for general reporting requirements.

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

Emission Units 45-48 New Emergency Diesel Fire Pump Engines

Emission Unit	Description	Model Year	Maximum Continuous Rating	Construction Commenced	Fuel Rate
45	John Deere, Model 6081HF001, (Steam Plant Emergency Fire Pump Engine #1)	2007	375 HP	2007	19.2 gal/hr
46	John Deere, Model 6081HF001, (Steam Plant Emergency Fire Pump Engine #2)	2007	375 HP	2007	19.2 gal/hr
47	John Deere, Model 6125HF070 equipped with Clarke Fire Pump Engine – Model JX6H-UF50 (FGD Emergency Fire Pump Engine #1)	2007	485 HP (362 kW)	2007	24.8 gal/hr
48	John Deere, Model 6125HF070 equipped with Clarke Fire Pump Engine – Model JX6H-UF50 (FGD Emergency Fire Pump Engine #2)	2007; Rebuilt 2021	485 HP (362 kW)	2007	24.8 gal/hr

APPLICABLE REGULATIONS:

401 KAR 60:005, Section 2(2)(dddd), 40 C.F.R. 60.4200 through 60.4219, Tables 1 through 8 (**Subpart IIII)**, *Standards of Performance for Stationary Compression Ignition* (CI) *Internal Combustion Engines* (ICE)

401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A **(Subpart ZZZZ)**, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*

1. **Operating Limitations:**

   a. The permittee must operate and maintain engines that achieve the emission standards required by 40 CFR 60.4205 over the entire life of the engine. [40 CFR 60.4206]

   b. The permittee must use diesel fuel that meets the requirements of 40 CFR 1090.305 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 Method*:**
   The permittee shall demonstrate compliance by using fuel supplier certification.

   c. The permittee must do all of the following, except as permitted under 40 CFR 60.4211(g): [40 CFR 60.4211(a)]

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

i. Operate and maintain the engines according to the manufacturer's emission-related written instructions; [40 CFR 60.4211(a)(1)]

ii. Change only those emission-related settings that are permitted by the manufacturer; and [40 CFR 60.4211(a)(2)]

iii. Meet the requirements of 40 CFR part 1068, as they apply. [40 CFR 60.4211(a)(3)]

d. The permittee must operate the emergency engines 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, and operation in non-emergency 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 must 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 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)]

A. The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [40 CFR 60.4211(f)(3)(i)(A)]

B. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead

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

to the interruption of power supply in a local area or region. [40 CFR 60.4211(f)(3)(i)(B)]

C. 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)]

D. 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)]

E. 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)]

e. The permittee must meet the requirements of 40 CFR Part 63 by meeting the requirements of 40 CFR 60, Subpart IIII. No further requirements apply for these engines under 40 CFR Part 63. [40 CFR 63.6590(c)(6)]

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

The permittee must comply with the emission standards in Table 4 to 40 CFR 60, Subpart IIII for all pollutants.

a. For NO_x+NMHC, the emission standard is 10.5 g/kW-hr (7.8 g/HP-hr);

b. For CO, the emission standard in 3.5 g/kW-hr (2.6 g/HP-hr); and

c. For PM, the emission standard is 0.54 g/kW-hr (0.4 g/HP-hr).

[40 CFR 60.4205(c) referencing Table 4 to 40 CFR 60, Subpart IIII for maximum engine power $225 \leq kW < 450$ ($300 \leq HP < 600$) model years 2008 and earlier]

***<u>Compliance Demonstration Method</u>*:**

A. The permittee shall demonstrate compliance with the emission standards by purchasing an engine certified to the emission standards listed above for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g). [40 CFR 60.4211(c)]

B. If the permittee does not install, configure, operate, and maintain the engines and control device according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the

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

manufacturer's emission-related written instructions, or within 1 year after emission-related settings change in a way that is not permitted by the manufacturer.

3. **Testing Requirements:**
   a. Testing shall conform to the requirements of 40 CFR 60.4212(a) through (e), as appropriate. [40 CFR 60.4212]

   b. Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1]

4. **Specific Monitoring Requirements:**
   a. The permittee shall monitor hours of operation and fuel usage (in gallons) on a monthly basis. [401 KAR 52:020, Section 10]

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

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall maintain records of hours of operation and fuel usage (in gallons) on a monthly basis. [401 KAR 52:020, Section 10]

   b. 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]

   c. Starting with the model years in Table 5 to 40 CFR 60, Subpart IIII, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]

   d. Any records required to be maintained by this 40 CFR 60, Subpart IIII that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. [40 CFR 60.4214(j)]

6. **Specific Reporting Requirements:**
   a. If an engine operates for the purpose specified in 40 CFR 60.4211(f)(3)(i), the permittee must submit an annual report according to the requirements in 40 CFR 60.4214(d)(1) through (3). [40 CFR 60.4214(d)]

   b. Within 60 days after the date of completing each performance test required by 40 CFR 60, Subpart IIII, the permittee must submit the results of the performance test required following the procedures specified in 40 CFR 60.4214(f)(1) and (2). [40 CFR 60.4214(f)]

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

c. If the permittee is required to submit notifications or reports following the procedure in 40 CFR 60.4214(g), the permittee must submit notifications or reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (*https//cdx.epa.gov/).* The EPA will make all information submitted through CEDRI available to the public without further notice to the permittee. Do not use CEDRI to submit information claimed as CBI. Follow the procedures in 40 CFR 60.4214(g) if asserting CBI. [40 CFR 60.4214(g)]

d. If the permittee is required to electronically submit a report through CEDRI in the EPA's CDX, the permittee may assert a claim of EPA system outage or force majeure for failure to timely comply with that reporting requirement. To assert a claim of EPA system outage, the permittee must meet the requirements outlined in 40 CFR 60.4214(h)(1) through (7). To assert a claim of force majeure, the permittee must meet the requirements outlined in 40 CFR 60.4214(i)(1) through (5). [40 CFR 60.4214(h) and 40 CFR 60.4214(i)]

e. See **Section F – Monitoring, Recordkeeping, and Reporting Requirements** for general reporting requirements.

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

Emission Units 49, 51, 52, 71, and 72 New Emergency Diesel Generator Engines

Emission Unit	Description	Model Year	Maximum Continuous Rating	Construction Commenced	Fuel Rate
49	Generac SD500 Doosan 390 Emergency Generator Engine, Tier 2	2010	752 HP (500 kW)	2010	33.0 gal/hr
51	Cummins QSK23-G7 NR2 Emergency Generator Engine, Tier 2	2014	1,220 HP	2014	51.3 gal/hr
52	Cummins QSK23-G7 NR2 Emergency Generator Engine, Tier 2	2014	1,220 HP	2014	51.3 gal/hr
71	Cat C7.1 Emergency Generator Engine, Tier 3 (Dix Dam Crest Gate)	2023	229.6 HP (171.2 kW)	2024	10.0 gal/hr
72	Cat C7.1 Emergency Generator Engine, Tier 3 (Dix Dam/Brown Station)	2023	229.6 HP (171.2 kW)	2024	10.0 gal/hr

APPLICABLE REGULATIONS:

401 KAR 60:005, Section 2(2)(dddd), 40 C.F.R. 60.4200 through 60.4219, Tables 1 through 8 (**Subpart IIII)**, *Standards of Performance for Stationary Compression Ignition* (CI) *Internal Combustion Engines* (ICE)

401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A **(Subpart ZZZZ)**, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*

1. Operating Limitations:

a. The permittee must operate and maintain engines that achieve the emission standards required by 40 CFR 60.4205 over the entire life of the engine. [40 CFR 60.4206]

b. The permittee must use diesel fuel that meets the requirements of 40 CFR 1090.305 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 Method*:**
The permittee shall demonstrate compliance by using fuel supplier certification.

c. The permittee must do all of the following, except as permitted under 40 CFR 60.4211(g): [40 CFR 60.4211(a)]

i. Operate and maintain the engines according to the manufacturer's emission-related written instructions; [40 CFR 60.4211(a)(1)]

ii. Change only those emission-related settings that are permitted by the manufacturer; and [40 CFR 60.4211(a)(2)]

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

iii. Meet the requirements of 40 CFR part 1068, as they apply. [40 CFR 60.4211(a)(3)]

d. The permittee must operate the emergency engines 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, and operation in non-emergency 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 must 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 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)]

A. The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [40 CFR 60.4211(f)(3)(i)(A)]

B. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [40 CFR 60.4211(f)(3)(i)(B)]

C. 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)]

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

D. 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)]

E. 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)]

e. 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)(1)(i)]

2. Emission Limitations:

The permittee shall comply with the Tier 2 or Tier 3 emission standards for new nonroad CI engines for the same model year and maximum engine power in Appendix I to 40 CFR part 1039, for all pollutants, and the smoke standards as specified in 40 CFR 1039.105. [40 CFR 60.4205(b) referencing 40 CFR 60.4202(a)(2)]

***Compliance Demonstration Method*:**

A. The permittee shall demonstrate compliance with the emission standards by purchasing an engine certified to the emission standards listed above for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g). [40 CFR 60.4211(c)]

B. If the permittee does not install, configure, operate, and maintain the engines and control device according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:

I. The permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after emission-related settings change in a way that is not permitted by the manufacturer.

II. For EUs 49, 51, and 52, the permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. [40 CFR 60.4211(g)]

3. Testing Requirements:

a. Testing shall conform to the requirements of 40 CFR 60.4212(a) through (e), as appropriate. [40 CFR 60.4212]

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

b. Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1]

4. Specific Monitoring Requirements:

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

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

5. Specific Recordkeeping Requirements:

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

b. 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]

c. Starting with the model years in Table 5 to 40 CFR 60, Subpart IIII, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]

d. Any records required to be maintained by this 40 CFR 60, Subpart IIII that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. [40 CFR 60.4214(j)]

6. Specific Reporting Requirements:

a. If an engine operates for the purpose specified in 40 CFR 60.4211(f)(3)(i), the permittee must submit an annual report according to the requirements in 40 CFR 60.4214(d)(1) through (3). [40 CFR 60.4214(d)]

b. Within 60 days after the date of completing each performance test required by 40 CFR 60, Subpart IIII, the permittee must submit the results of the performance test required following the procedures specified in 40 CFR 60.4214(f)(1) and (2). [40 CFR 60.4214(f)]

c. If the permittee is required to submit notifications or reports following the procedure in 40 CFR 60.4214(g), the permittee must submit notifications or reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (*https//cdx.epa.gov/).* The EPA will make all information submitted through CEDRI available to the public without further

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

notice to the permittee. Do not use CEDRI to submit information claimed as CBI. Follow the procedures in 40 CFR 60.4214(g) if asserting CBI. [40 CFR 60.4214(g)]

d. If the permittee is required to electronically submit a report through CEDRI in the EPA's CDX, the permittee may assert a claim of EPA system outage or force majeure for failure to timely comply with that reporting requirement. To assert a claim of EPA system outage, the permittee must meet the requirements outlined in 40 CFR 60.4214(h)(1) through (7). To assert a claim of force majeure, the permittee must meet the requirements outlined in 40 CFR 60.4214(i)(1) through (5). [40 CFR 60.4214(h) and 40 CFR 60.4214(i)]

e. See **Section F – Monitoring, Recordkeeping, and Reporting Requirements** for general reporting requirements.

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

Emission Unit 61 **New Emergency Diesel Generator (NGCC Project)**

Description:

Model:	Kohler KD2000 Emergency Generator or similar
Maximum Continuous Rating:	2,923 HP (2.18 MW)
Construction Commenced:	Proposed June 2026
Fuel:	ULSFO
Fuel Rate:	149 gal/hr

APPLICABLE REGULATIONS:

401 KAR 51:017, *Prevention of significant deterioration of air quality* (CO, NO_x, PM/PM_{10}/$PM_{2.5}$, VOC, and CO_2e)

401 KAR 60:005, Section 2(2)(dddd), 40 C.F.R. 60.4200 through 60.4219, Tables 1 through 8 (**Subpart IIII)**, *Standards of Performance for Stationary Compression Ignition* (CI) *Internal Combustion Engines* (ICE)

401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A **(Subpart ZZZZ)**, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*

1. Operating Limitations:

a. The permittee shall prepare and maintain a good combustion and operations practices plan (GCOP) within 90 days of startup that defines, measures, and verifies the use of operational and design practices determined as BACT for minimizing CO, NO_X, PM, PM_{10}, $PM_{2.5}$, VOC, H_2SO_4, and GHG emissions. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Division's inspection. The plan shall include, but not be limited to: [401 KAR 51:017]

i. A list of combustion optimization practices and a means of verifying the practices have occurred;

ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred; and

iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.

Compliance Demonstration Method:

Compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements** a.

b. 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)(1) and (b)(1)(i)]

c. The permittee shall operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. [40 CFR 60.4206]

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

d. The permittee shall use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel. [40 CFR 60.4207(b)]

***Compliance Demonstration Method*:**
The permittee shall demonstrate compliance by using fuel supplier certification.

e. The permittee shall do all of the following, except as permitted under 40 CFR 60.4211(g): [40 CFR 60.4211(a)]
   i. Operate and maintain the stationary CI ICE and control device according to the manufacturer's emission-related written instructions; [40 CFR 60.4211(a)(1)]

   ii. Change only those emission-related settings that are permitted by the manufacturer; and [40 CFR 60.4211(a)(2)]

   iii. Meet the requirements of 40 CFR part 1068, as they apply. [40 CFR 60.4211(a)(3)]

f. 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, 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)]
   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 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

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

financial arrangement with another entity if all of the following conditions are met: [40 CFR 60.4211(f)(3) and (f)(3)(i)]

A. The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [40 CFR 60.4211(f)(3)(i)(A)]

B. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [40 CFR 60.4211(f)(3)(i)(B)]

C. 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)]

D. 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)]

E. 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)]

g. The permittee shall comply with the following applicable General Provisions: 40 CFR 60.1 through 60.6, 60.9, 60.10, 60.12, 60.14 through 60.17, and 60.19. [40 CFR 60.4218 referencing Table 8 to 40 CFR 60, Subpart IIII]

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

a. The permittee shall comply with the following emission standards from 40 CFR 60, Subpart IIII as BACT for these units: [401 KAR 51:017, Section 8(1) and 40 CFR 60.4205(b) referencing 40 CFR 60.4202(a)(2) referencing Table 2 in Appendix I to 40 CFR part 1039]

i. For NO_x + NMHC, the emission standard is 6.4 g/kW-hr (4.8 g/HP-hr);

ii. For CO, the emission standard is 3.5 g/kW-hr (2.6 g/HP-hr); and

iii. For PM, the emission standard is 0.20 g/kW-hr (0.15 g/HP-hr).

b. The permittee shall comply with the following smoke emission standards: [40 CFR 1039.105]

i. 20 % during acceleration mode;

ii. 15% during lugging mode

iii. 50% during peaks in either acceleration or lugging modes

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

Compliance Demonstration Method:

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). [40 CFR 60.4211(c)]

B. If the permittee does not install, configure, operate, and maintain the engines according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance as follows: [40 CFR 60.4211(g)]

I. The permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer. [40 CFR 60.4211(g)(2) and (g)(3)]

II. The permittee shall conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable standards. [40 CFR 60.4211(g)(3)]

III. See **3. Testing Requirements** a.

3. Testing Requirements:

a. If required to demonstrate compliance, the permittee shall conduct performance tests pursuant to the requirements of 40 CFR 60.4212(a) through (e). [40 CFR 60.4212]

b. Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1]

4. Specific Monitoring Requirements:

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

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]

i. Hours of operation and fuel usage (in gallons) for each engine on a monthly basis;

ii. The manufacturer's certified emissions certificate, manufacturer's written operating instructions, and any procedures developed by the owner or operator that are approved by the engine manufacturer, over the life of the engine; and

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

iii. GCOP plan and any revisions.

b. The permittee shall maintain records necessary to demonstrate compliance with the applicable operating and emission limitations for a minimum of 5 years following the date of each record. Any records submitted electronically may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. [401 KAR 52:020, Section 10 and 40 CFR 60.4214(j)]

c. The permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]

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

a. If the permittee operates for the purpose specified in 40 CFR 60.4211(f)(3)(i), the permittee must submit an annual report according to the requirements in 40 CFR 60.4214(d)(1) through (3). [40 CFR 60.4214(d)]

b. Within 60 days after the date of completing each performance test required by 40 CFR 60, Subpart IIII, the permittee must submit the results of the performance test following the procedures specified in 40 CFR 60.4214(f)(1) and (2) and 40 CFR 60.4214(g) through (i) [40 CFR 60.4214(f) through (i)]

c. The permittee is required to submit an Initial Notification but is otherwise not affected by the requirements of 40 CFR 63, Subpart ZZZZ. The notification should include the information in 40 CFR 63.9(b)(2)(i) through (v), and a statement that the engine has no additional requirements and explain the basis of the exclusion (operates exclusively as an emergency stationary RICE with a site rating of more than 500 HP located at a major source of HAP emissions). [40 CFR 63.6645(f)]

d. See **Section F – Monitoring, Recordkeeping, and Reporting Requirements** for general reporting requirements.

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

Emission Unit 62 **New Emergency CI Fire Pump Engine (NGCC Project)**

Description:

Model:	Clarke JW6H-UFAD80 Emergency Fire Pump or similar
Maximum Continuous Rating:	422 HP
Construction Commenced:	Proposed June 2026
Fuel:	ULSFO
Fuel Rate:	22 gal/hr

APPLICABLE REGULATIONS:

401 KAR 51:017, *Prevention of significant deterioration of air quality* (CO, NO_x, PM/PM_{10}/$PM_{2.5}$, VOC, and CO_2e)

401 KAR 60:005, Section 2(2)(dddd), 40 C.F.R. 60.4200 through 60.4219, Tables 1 through 8 (**Subpart IIII)**, *Standards of Performance for Stationary Compression Ignition* (CI) *Internal Combustion Engines* (ICE)

401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A **(Subpart ZZZZ)**, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*

1. Operating Limitations:

a. The permittee shall prepare and maintain a good combustion and operations practices plan (GCOP) within 90 days of startup that defines, measures, and verifies the use of operational and design practices determined as BACT for minimizing CO, NO_X, PM, PM_{10}, $PM_{2.5}$, VOC, H_2SO_4, and GHG emissions. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Division's inspection. The plan shall include, but not be limited to: [401 KAR 51:017]

i. A list of combustion optimization practices and a means of verifying the practices have occurred;

ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred; and

iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.

Compliance Demonstration Method:

Compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements** a.

b. The permittee shall meet the requirements of 40 CFR part 63 by meeting the requirements of 40 CFR 60, Subpart IIII. No further requirements apply for EU 62 under 40 CFR part 63. [40 CFR 63.6590(c)(6)]

c. The permittee shall operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. [40 CFR 60.4206]

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

d. The permittee shall use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel. [40 CFR 60.4207(b)]

***Compliance Demonstration Method*:**
The permittee shall demonstrate compliance by using fuel supplier certification.

e. The permittee shall do all of the following, except as permitted under 40 CFR 60.4211(g): [40 CFR 60.4211(a)]
   i. Operate and maintain the stationary CI ICE and control device according to the manufacturer's emission-related written instructions; [40 CFR 60.4211(a)(1)]

   ii. Change only those emission-related settings that are permitted by the manufacturer; and [40 CFR 60.4211(a)(2)]

   iii. Meet the requirements of 40 CFR part 1068, as they apply. [40 CFR 60.4211(a)(3)]

f. 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, 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)]
   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 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

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

financial arrangement with another entity if all of the following conditions are met: [40 CFR 60.4211(f)(3) and (f)(3)(i)]

A. The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [40 CFR 60.4211(f)(3)(i)(A)]

B. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [40 CFR 60.4211(f)(3)(i)(B)]

C. 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)]

D. 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)]

E. 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)]

g. The permittee shall comply with the following applicable General Provisions: 40 CFR 60.1 through 60.6, 60.9, 60.10, 60.12, 60.14 through 60.17, and 60.19. [40 CFR 60.4218 referencing Table 8 to 40 CFR 60, Subpart IIII]

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

a. The permittee shall comply with the following emission standards from 40 CFR 60, Subpart IIII as BACT for these units: [401 KAR 51:017, Section 8(1) and 40 CFR 60.4205(c) referencing Table 4 to 40 CFR 60, Subpart IIII]

i. For NO_x + NMHC, the emission standard is 4.0 g/kW-hr (3.0 g/HP-hr);

ii. For CO, the emission standard is 3.5 g/kW-hr (2.6 g/HP-hr); and

iii. For PM, the emission standard is 0.20 g/kW-hr (0.15 g/HP-hr).

b. The permittee shall comply with the following smoke emission standards: [40 CFR 1039.105]

i. 20 % during acceleration mode;

ii. 15% during lugging mode

iii. 50% during peaks in either acceleration or lugging modes

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

Compliance Demonstration Method:

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). [40 CFR 60.4211(c)]

B. If the permittee does not install, configure, operate, and maintain the engines according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance as follows: [40 CFR 60.4211(g)]

I. The permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer. [40 CFR 60.4211(g)(2) and (g)(3)]

II. See **3. Testing Requirements** a.

3. Testing Requirements:

a. If required to demonstrate compliance, the permittee shall conduct performance tests pursuant to the requirements of 40 CFR 60.4212(a) through (e). [40 CFR 60.4212]

b. Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1]

4. Specific Monitoring Requirements:

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

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]

i. Hours of operation and fuel usage (in gallons) for each engine on a monthly basis;

ii. The manufacturer's certified emissions certificate, manufacturer's written operating instructions, and any procedures developed by the owner or operator that are approved by the engine manufacturer, over the life of the engine; and

iii. GCOP plan and any revisions.

b. The permittee shall maintain records necessary to demonstrate compliance with the applicable operating and emission limitations for a minimum of 5 years following the date

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

of each record. Any records submitted electronically may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. [401 KAR 52:020, Section 10 and 40 CFR 60.4214(j)]

c. The permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]

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

a. If the permittee operates for the purpose specified in 40 CFR 60.4211(f)(3)(i), the permittee must submit an annual report according to the requirements in 40 CFR 60.4214(d)(1) through (3). [40 CFR 60.4214(d)]

b. Within 60 days after the date of completing each performance test required by 40 CFR 60, Subpart IIII, the permittee must submit the results of the performance test following the procedures specified in 40 CFR 60.4214(f)(1) and (2) and 40 CFR 60.4214(g) through (i) [40 CFR 60.4214(f) through (i)]

c. See **Section F – Monitoring, Recordkeeping, and Reporting Requirements** for general reporting requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, 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			
07-4	Conveyor F			
07-5	Conveyor G			
07-6	Conveyor H			
35	Paved & Unpaved Roadways	1957	30,420 VMT/yr	Dust Suppression (Wet and/or Chemical)

APPLICABLE REGULATIONS:
401 KAR 63:010, *Fugitive emissions*

1. **Operating Limitations:**
   a. A person shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished; or a road to be used without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]
      i. Use, if possible, of water or suitable chemicals for control of dust in the demolition of existing buildings 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 dust; [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; or [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)]

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

b. If dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate any administrative regulation, the secretary may, based on the cause, type, or amount of a fugitive emission, 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)]

c. At all times while in motion, open bodied trucks, operating outside company property, transporting materials likely to become airborne shall be covered. [401 KAR 63:010, Section 4(1)]

d. A person shall not cause, suffer, or 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(3)]

2. Emission Limitations:

A person shall not cause, suffer, or allow visible fugitive dust emissions beyond the lot line of the property on which the emissions originate, as determined by Reference Method 22 of Appendix A in 40 C.F.R. Part 60, for: [401 KAR 63:010, Section 3(2)]

a. More than five (5) minutes of emission time during any sixty (60) minute observation period; or [401 KAR 63:010, Section 3(2)(a)]

b. More than twenty (20) minutes of emission time during any twenty-four (24) hour period. [401 KAR 63:010, Section 3(2)(b)]

3. Testing Requirements:

Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1]

4. Specific Monitoring Requirements:

a. The permittee shall monitor the reasonable precautions taken to prevent particulate matter from becoming airborne on a daily basis. [401 KAR 52:020, Section 10]

b. If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct U.S. EPA Reference Method 22 (visual determination of fugitive emissions) observations per Appendix A of 40 C.F.R. Part 60. In lieu of conducting U.S. EPA Reference Method 22, the permittee shall immediately perform a corrective action which results in no visible fugitive dust emissions beyond the lot line of the property. [401 KAR 52:020, Section 10]

c. The permittee shall monitor the processing rate (in tons for EU 7 and in VMT for EU 35) for each unit on a monthly basis. [401 KAR 52:020, Section 10]

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a log of the reasonable precautions taken to prevent particulate matter from becoming airborne, on a daily basis. Notation of the operating status, downtime, or relevant weather conditions are acceptable for entry to the log. [401 KAR 52:020, Section 10]

b. The permittee shall maintain a log of the following: [401 KAR 52:020, Section 10]
   i. Qualitative fugitive emissions observations conducted, including the date, time, initials of observer, whether any fugitive dust emissions were observed,

   ii. Any U.S. EPA Reference Method 22 readings performed and field records identified in U.S. EPA Reference Method 22, and

   iii. Any corrective action taken and the results.

c. The permittee shall maintain records of the processing rate (in tons for EU 7 and in VMT for EU 35) for each unit on a monthly basis. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

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

7. Specific Control Equipment Operating Conditions:

a. The enclosures for each emission unit shall be properly maintained to ensure 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 additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, 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
9-5	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), 40 C.F.R. 60.250 through 60.258 (**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 Method*:**
   Compliance shall be demonstrated according to **3. Testing Requirements** a.

3. **Testing Requirements:**
   a. The permittee shall determine opacity on a quarterly basis using U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR part 60 and as specified in 40 CFR 60.257(a)(1) through (3). [40 CFR 60.255]

   b. Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1]

4. **Specific Monitoring Requirements:**
   a. The permittee shall monitor the amount of coal received and processed (in tons) for each unit 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 (in tons) 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]

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

c. The permittee shall maintain a log onsite of opacity readings required by **3. Testing Requirements** a. [401 KAR 52:020, Section 10]

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 general reporting 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 additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, 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
13-2	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 Method*:**
      The permittee shall demonstrate compliance according to **4. Specific Monitoring Requirements** b. and **5. Specific Recordkeeping Requirements** b.

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

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

      ***Compliance Demonstration Method*:**
      Each unit is assumed in compliance when the associated control equipment is in operation. See **7. Specific Control Equipment Operating Conditions** a.

3. **Testing Requirements:**
   Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1]

4. **Specific Monitoring Requirements:**
   a. The permittee shall monitor the amount of coal processed (in tons) and hours of operation for each unit on a monthly basis. [401 KAR 52:020, Section 10]

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

b. The permittee shall perform a qualitative visual observation (lasting at least 6 minutes) of the opacity of emissions from each stack on a weekly basis while the units are operating. If visible emissions from the stacks are observed (not including condensed water in the plume), 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]

5. Specific Recordkeeping Requirements:

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

b. The permittee shall maintain a log of the qualitative visual observations made including the date, time, initials of observer, whether any emissions were observed (yes/no), any U.S. EPA Reference Method 9 readings taken, and any corrective action performed. [401 KAR 52:020, Section 10]

c. 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 general reporting 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 additional requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, 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	
32	Limestone stacking tube	03/01/2008	500	
33	Limestone reclaim conveyor #1	03/01/2008	500	
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), 40 C.F.R. 60.670 through 60.676, Tables 1 through 3 (**Subpart OOO**), *Standards of Performance for Nonmetallic Mineral Processing Plants* (Emission Units 30 and 31 are exempt from the emission limitations. [40 CFR 60.672(d)])

1. Operating Limitations:

N/A

2. Emission Limitations:

a. No person shall cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with limestone handling which is equal to or greater than 20 percent opacity. [401 KAR 59:010, Section 3(1)(a)]

***Compliance Demonstration Method*:**

For Emission Unit 30 and 31, compliance shall be demonstrated according to **4. Specific Monitoring Requirements** c. For Emission Units 32-34, compliance shall be demonstrated by compliance with the 40 CFR 60, Subpart OOO limits under **2. Emission Limitations** c.

b. No person shall cause, suffer, allow or permit the emission into the open air of particulate matter (PM) from any limestone handling which is excess of the following: [401 KAR 59:010, Section 3(2)]

P = Process Rate (tons/hr)	E = PM Emission Limit (lb/hr)
$P \leq 0.50$	$E = 2.34$
$0.50 < P \leq 30$	$E = 3.59*P^{0.62}$
$P > 30$	$E = 17.31*P^{0.16}$

***Compliance Demonstration Method*:**

Compliance with the 401 KAR 59:010 PM emission limitations are assumed based on emission factors and emission rates provided in the application.

c. 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) referencing Table 2 of 40 CFR 60, Subpart OOO]

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

***Compliance Demonstration Method*:**
Compliance with the 40 CFR 60, Subpart OOO PM standards shall be demonstrated according to **3. Testing Requirements**, **4. Specific Monitoring Requirements** a. or b., **5. Specific Recordkeeping Requirements** a. and b., and **6. Specific Reporting Requirements** a.

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 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)]

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

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 (in 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 (in 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 general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The fabric filters 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 additional requirements.

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

Emission Unit 50 CCR Landfill Operations and Haul Trucks

Description:
Coal combustion residual disposal system – Landfill and material transport operations
Construction Commenced: June 2013
Controls: Wet Suppression: watering, cleaning, and road maintenance

APPLICABLE REGULATION:
401 KAR 63:010, *Fugitive emissions*

1. **Operating Limitations:**
   a. A person shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished; or a road to be used without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]
      i. Use, if possible, of water or suitable chemicals for control of dust in the demolition of existing buildings 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 dust; [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. If dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate any administrative regulation, the secretary may, based on the cause, type, or amount of a fugitive emission, 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)]

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

c. At all times while in motion, open bodied trucks, operating outside company property, transporting materials likely to become airborne shall be covered. [401 KAR 63:010, Section 4(1)]

d. The permittee shall not cause, suffer, or 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(3)]

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

2. Emission Limitations:
A person shall not cause, suffer, or allow visible fugitive dust emissions beyond the lot line of the property on which the emissions originate, as determined by Reference Method 22 of Appendix A in 40 C.F.R. Part 60, for: [401 KAR 63:010, Section 3(2)]

a. More than five (5) minutes of emission time during any sixty (60) minute observation period; or [401 KAR 63:010, Section 3(2)(a)]

b. More than twenty (20) minutes of emission time during any twenty-four (24) hour period. [401 KAR 63:010, Section 3(2)(b)]

Compliance Demonstration Method:
Compliance shall be demonstrated according to **4. Specific Monitoring Requirements** c. and **5. Specific Recordkeeping Requirements** c.

3. Testing Requirements:
Performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet. [401 KAR 50:045, Section 1]

4. Specific Monitoring Requirements:

a. The permittee shall monitor the reasonable precautions taken to prevent particulate matter from becoming airborne on a daily basis. [401 KAR 52:020, Section 10]

b. The permittee shall monitor the amount of material hauled (in tons) and number of vehicle miles travelled on paved and unpaved roadways on a monthly basis. [401 KAR 52:020, Section 10]

c. The permittee shall perform qualitative visual observations of the lot line once per weekday (Monday through Friday) during operation. If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct U.S. EPA Reference Method 22 (visual determination of fugitive emissions) observations per Appendix A of 40 C.F.R. Part 60. In lieu of conducting U.S. EPA Reference Method 22, the permittee shall immediately perform a corrective action which results in no visible fugitive dust emissions beyond the lot line of the property. [401 KAR 52:020, Section 10]

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a log of the reasonable precautions taken to prevent particulate matter from becoming airborne, on a daily basis. Notation of the operating status, downtime, or relevant weather conditions are acceptable for entry to the log. [401 KAR 52:020, Section 10]

b. The permittee shall maintain records of the amount of material hauled (in tons) and number of vehicle miles travelled on paved and unpaved roadways on a monthly basis. [401 KAR 52:020, Section 10]

c. The permittee shall maintain a log of the following: [401 KAR 52:020, Section 10]

i. Qualitative fugitive emissions observations conducted each weekday (Monday through Friday) including the date, time, initials of observer, and whether any fugitive dust emissions were observed;

ii. Any U.S. EPA Reference Method 22 readings performed and field records identified in U.S. EPA Reference Method 22;

iii. Any corrective actions taken and the results.

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 general reporting 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.

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

Emission Unit 38 **Cooling Tower**

Description:
Cooling Tower 3 (Forced Draft)
Maximum Circulating Water Rate: 10.37 million gallons per hour (MMgal/hr)
Construction Commenced: 1971
Controls: Drift Eliminators

APPLICABLE REGULATION:
401 KAR 61:020, *Existing process operations*

PRECLUDED REGULATION:
401 KAR 63:002, Section 2(4)(j), 40 C.F.R. 63.400 through 63.407, Table 1 (**Subpart Q**), *National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers*

1. **Operating Limitations:**
The use of chromium-based water treatment chemicals in the cooling tower is prohibited. [To preclude 40 CFR 63, Subpart Q]

***Compliance Demonstration Method*:**
Compliance with cooling tower water treatment shall be demonstrated according to **5. Specific Recordkeeping Requirements** c.

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

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

***Compliance Demonstration Method*:**
The unit is assumed to be in compliance with the PM and opacity emission standards while the drift eliminators are in operation.

3. **Testing Requirements:**
Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1]

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

4. Specific Monitoring Requirements:
The permittee shall monitor the processing rate (in MMgal) on a monthly basis. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the processing rate (in MMgal) 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]

c. The permittee shall maintain records of safety data sheets water treatment chemical purchases, including invoices and other documentation that includes date(s) of purchase or shipment, trade name or other information to identify composition of the product, and quantity of the product. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:
See **Section F – Monitoring, Recordkeeping, and Reporting Requirements** for general reporting 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 additional requirements.

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

Emission Unit 63 **10-Cell Mechanical Draft Cooling Tower**

Description:

Maximum Circulating Water Rate:	95,000 gallons per minute (gpm)
Maximum Total Dissolved Solids (TDS):	990 ppm
Construction Commenced:	Proposed June 2026
Controls:	Inherent Drift Eliminators

APPLICABLE REGULATIONS:

401 KAR 51:017, *Prevention of significant deterioration of air quality* ($PM/PM_{10}/PM_{2.5}$)

401 KAR 59:010, *New process operations*

PRECLUDED REGULATION:

401 KAR 63:002, Section 2(4)(j), 40 C.F.R. 63.400 through 63.407, Table 1 (**Subpart Q**), *National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers*

1. **Operating Limitations:**

   a. The permittee shall minimize emissions of PM, PM_{10}, and $PM_{2.5}$ through the use of inherent drift eliminators certified by the manufacturer to have a 0.001% drift loss or less. The cooling tower shall be operated and maintained according to the manufacturer's specifications and recommendations at all times. [401 KAR 51:017]

   ***Compliance Demonstration Method*:**
   Compliance with the BACT limitation shall be demonstrated according to **5. Specific Recordkeeping Requirements** c. and d.

   b. The permittee shall not exceed a water flow rate of 95,000 gpm and a TDS concentration of 990 ppm. [401 KAR 51:017]

   Compliance Demonstration Method:
   Compliance shall be demonstrated according to **4. Specific Monitoring Requirements** b. and **5. Specific Recordkeeping Requirements** b.

   c. The use of chromium-based water treatment chemicals in the cooling tower is prohibited [To preclude 40 CFR 63, Subpart Q].

   ***Compliance Demonstration Method*:**
   Compliance with the cooling tower water treatment shall be demonstrated according to **5. Specific Recordkeeping Requirements** e.

2. **Emission Limitations:**

   a. For BACT, the permittee shall not allow emissions to exceed the following: [401 KAR 51:017]

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

Pollutant	Emission Limit	Averaging Period
PM	0.47 lb/hr	Hourly
	2.07 tpy	12-month rolling
PM_{10}	0.22 lb/hr	Hourly
	0.97 tpy	12-month rolling
$PM_{2.5}$	$9.50x10^{-4}$ lb/hr	Hourly
	$4.16x10^{-3}$ tpy	12-month rolling

***Compliance Demonstration Method*:**
Compliance shall be demonstrated according to **1. Operating Limitations** a. and b., **4. Specific Monitoring Requirements** b., **5. Specific Recordkeeping Requirements** b., and **7. Specific Control Equipment Operating Conditions**.

b. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]

c. No person shall cause, suffer, allow or permit the emissions from a control device or stack into the open air of particulate matter from the cooling tower which is in excess of the following: [401 KAR 59:010, Section 3(2)]

P = Process Rate (tons/hr)	E = PM Emission Limit (lb/hr)
$P \leq 0.50$	$E = 2.34$
$0.50 < P \leq 30$	$E = 3.59*P^{0.62}$
$P > 30$	$E = 17.31*P^{0.16}$

Compliance Demonstration Method:
The permittee is assumed to be in compliance with the applicable 401 KAR 59:010 opacity and PM emission limitations while the cooling towers are operated and maintained in accordance with the manufacturer's specifications and recommendations.

3. Testing Limitations:
Performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet. [401 KAR 50:045, Section 1, and 401 KAR 59:005, Section 2(2)]

4. Specific Monitoring Requirements:
a. The permittee shall monitor the amount of water used (in gallons) and hours of operation on a monthly basis. [401 KAR 52:020, Section 10]

b. The permittee shall monitor the TDS (in ppm) of the circulating water on an annual basis to ensure compliance with the BACT emission limits. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:
a. The permittee shall maintain records of the amount of water used (in gallons) and hours of operation on a monthly basis. [401 KAR 52:020, Section 10]

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

b. The permittee shall maintain records of the TDS (in ppm) on an annual basis. [401 KAR 52:020, Section 10]

c. The permittee shall maintain records of the maintenance and use of the drift eliminators for the cooling tower. [401 KAR 52:020, Section 10]

d. The permittee shall keep onsite, and in a form suitable and readily available for expeditious review, the manufacturer's specifications for the cooling towers, including the drift loss rate. [401 KAR 52:020, Section 10]

e. The permittee shall maintain records of safety data sheets and water treatment chemical purchases, including invoices and other documentation that includes date(s) of purchase or shipment, trade name or other information to identify composition of the product, and quantity of the product. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

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

7. Specific Control Equipment Operating Conditions:

a. The drift eliminators for the cooling tower 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 additional requirements.

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

Emission Unit 64 Circuit Breakers

Description:
Two NGCC Circuit Breakers with SF_6 Circuits
Total Maximum Capacity: 360 pounds SF_6 (one at 30 lb and one at 330 lb)
Construction Commenced: Proposed June 2026

APPLICABLE REGULATIONS:
401 KAR 51:017, *Prevention of significant deterioration of air quality* (CO_2e)

1. **Operating Limitations:**
   The permittee shall install and operate a leak detection system for SF_6 as BACT for this unit. [401 KAR 51:017]

   ***Compliance Demonstration Method*:**
   Compliance shall be demonstrated according to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements** a.

2. **Emission Limitations:**
   The annual leakage rate of SF_6 shall not exceed 0.5 percent by weight. [401 KAR 51:017]

   ***Compliance Demonstration Method*:**
   Compliance with the annual SF_6 leakage emission limitation shall be demonstrated according to **5. Specific Recordkeeping Requirements** b. and c.

3. **Testing Requirements:**
   Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1]

4. **Specific Monitoring Requirements:**
   The permittee shall monitor the leak detection alarms at all times of operation. [401 KAR 52:020, Section 10]

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall maintain records of any leak(s) detected, including the date a leak was identified, date a corrective action was taken, and a description of the corrective action taken. [401 KAR 52:020, Section 10]

   b. The permittee shall maintain records showing the circuit breakers are designed and installed with an annual leak rate of 0.5% SF_6 by weight or less. [401 KAR 52:020, Section 10]

   c. The permittee shall maintain records of inspections and maintenance of the circuit breakers and SF_6 leakage detection system. [401 KAR 52:020, Section 10]

6. **Specific Reporting Requirements:**
   See **Section F –Monitoring, Recordkeeping and Reporting Requirements** for general reporting requirements.

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

Emission Unit 65 **Lube Oil System**

Description:
Maximum Operating Rate: 0.5 gallons/day
Control Device: Demister System
Construction Commenced: Proposed June 2026

APPLICABLE REGULATIONS:
401 KAR 51:017, *Prevention of significant deterioration of air quality* (VOC)

STATE-ORIGIN REQUIREMENT:
401 KAR 63:020, *Potentially hazardous matter or toxic substances*

1. **Operating Limitations:**
The permittee shall install and operate demisters for lubricating oil system mist control according to manufacturer's recommendations as BACT for this unit. [401 KAR 51:017]

***Compliance Demonstration Method*:**
Compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements** a.

2. **Emission Limitations:**
The permittee shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. The permittee shall not 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. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the Cabinet. [401 KAR 63:020, Section 3]

***Compliance Demonstration Method*:**
Based upon the emission rates of toxic and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance with 401 KAR 63:020.

3. **Testing Requirements:**
Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1]

4. **Specific Monitoring Requirements:**
The permittee shall monitor the amount of lube oil used (in gallons) on a monthly basis. [401 KAR 52:020, Section 10]

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall maintain records of the manufacturer's recommendations for the lube oil system and demisters on site and ready for expeditious review. [401 KAR 52:020, Section 10]

   b. The permittee shall maintain records of the lube oil VOC content. [401 KAR 52:020, Section 10]

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

c. The permittee shall maintain records of the amount of lube oil used (in gallons) on a monthly basis. [401 KAR 52:020, Section 10]

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

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

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

Emission Unit 66 and 67 Storage Tanks

Description:

Emission Unit	Description	Construction Commenced	Maximum Capacity
66	Emergency Generator (EU 61) Diesel Storage Tank	Proposed June 2026	3,733 gallons
67	Emergency Fire Pump (EU 62) Diesel Storage Tank		300 gallons

APPLICABLE REGULATION:
401 KAR 51:017, *Prevention of significant deterioration of air quality* (VOC)

STATE-ORIGIN REQUIREMENT:
401 KAR 63:020, *Potentially hazardous matter or toxic substances*

1. **Operating Limitations:**
   The permittee shall install and operate a submerged fill pipe and overfill/spill protection in each tank as BACT for these units. [401 KAR 51:017]

   ***Compliance Demonstration Method*:**
   Compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements** a.

2. **Emission Limitations:**
   The permittee shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. The permittee shall not 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. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the Cabinet. [401 KAR 63:020, Section 3]

   ***Compliance Demonstration Method*:**
   Based upon the emission rates of toxic and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance with 401 KAR 63:020.

3. **Testing Requirements:**
   Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1]

4. **Specific Monitoring Requirements:**
   The permittee shall monitor the amount of diesel fuel received by the facility (in gallons) on a monthly basis. [401 KAR 52:020, Section 10]

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall maintain records of the installation of a submerged fill pipe and overfill/spill protection in each tank. [401 KAR 52:020, Section 10]

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

b. The permittee shall maintain records of the amount of diesel fuel received by the facility (in gallons) on a monthly basis. [401 KAR 52:020, Section 10]

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

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

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

Emission Unit 68 NGCC Paved Haul Roads

Description:
NGCC Plant Paved Roadways used as Haul Roads for aqueous ammonia, cooling tower chemicals, and water treatment chemicals

Construction Commenced:	Proposed June 2026
Controls:	Wet Dust Suppression, as needed

APPLICABLE REGULATIONS:
401 KAR 51:017, *Prevention of significant deterioration of air quality* (PM, PM_{10}, & $PM_{2.5}$)
401 KAR 63:010, *Fugitive emissions*

1. Operating Limitations:

a. To ensure roadway emissions from truck traffic are minimized, the permittee shall employ a combination of the following to control fugitive dust emissions as outlined in a dust control plan: surface improvements (pavement), speed limit signage, watering (good work practice), and/or other control methods (dust suppression systems, good housekeeping practices, etc.) as needed. [401 KAR 51:017]

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

b. A person shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished; or a road to be used without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]

i. Use, if possible, of water or suitable chemicals for control of dust in the demolition of existing buildings 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 dust; [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; or [401 KAR 63:010, Section 3(1)(e)]

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

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)]

c. If dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate any administrative regulation, the secretary may, based on the cause, type, or amount of a fugitive emission, 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 while in motion, open bodied trucks, operating outside company property, transporting materials likely to become airborne shall be covered. [401 KAR 63:010, Section 4(1)]

e. A person shall not cause, suffer, or 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(3)]

Compliance Demonstration Method:
Compliance with the 401 KAR 63:010 operating limitations shall be demonstrated according to **4. Specific Monitoring Requirements** b. and **5. Specific Recordkeeping Requirements** b.

2. Emission Limitations:
The permittee shall not cause, suffer, or allow visible dust emissions beyond the lot line of the property on which the emissions originate, as determined by Reference Method 22 of Appendix A in 40 C.F.R. Part 60, for: [401 KAR 63:010, Section 3(2)]

a. More than five (5) minutes of emission time during any sixty (60) minute observation period; or [401 KAR 63:010, Section 3(2)(a)]

b. More than twenty (20) minutes of emission time during any twenty-four (24) hour period. [401 KAR 63:010, Section 3(2)(b)]

Compliance Demonstration Method:
Compliance shall be demonstrated according to **4. Specific Monitoring Requirements** c. and **5. Specific Recordkeeping Requirements** c.

3. Testing Requirements:
Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1]

4. Specific Monitoring Requirements:

a. The permittee shall monitor the haul road usage (in VMT and tons) for each vehicle on an annual basis. [401 KAR 52:020, Section 10]

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

b. The permittee shall monitor the reasonable precautions taken to prevent particulate matter from becoming airborne on a daily basis. [401 KAR 52:020, Section 10]

c. The permittee shall perform a qualitative visual observation of the lot line once per week during operation. If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct U.S. EPA Reference Method 22 (visual determination of fugitive emissions) observations per Appendix A of 40 C.F.R. Part 60. In lieu of conducting U.S. EPA Reference Method 22, the permittee shall immediately perform a corrective action which results in no visible fugitive dust emissions beyond the lot line of the property. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the haul road usage (in VMT and tons) for each vehicle on an annual basis. [401 KAR 52:020, Section 10]

b. The permittee shall maintain on site a copy of the dust control plan and a log of the reasonable precautions taken to prevent particulate matter from becoming airborne on a daily basis. Notation of the operating status, downtime, or relevant weather conditions are acceptable for entry to the log. [401 KAR 52:020, Section 10]

c. The permittee shall maintain a log of the following: [401 KAR 52:020, Section 10]
   i. Qualitative fugitive emissions observations conducted weekly including the date, time, initials of observer, whether any fugitive dust emissions were observed;

   ii. Any U.S. EPA Reference Method 22 readings performed and field records identified in U.S. EPA Reference Method 22; and

   iii. Any corrective action taken and the results.

6. Specific Reporting Requirements:

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

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

Emission Unit 69 NGCC Natural Gas Piping Fugitives

Description:
Components to connect a natural gas pipeline to provide the requisite fuel to all of the natural gas-fired units installed as part of the NGCC project.

Piping Component	Component Count
Valves	304
Relief Valves	25
Flanges	496
Vents	69
Compressors	3
Sampling Connections	3

NOTE - The pipeline equipment count listed above reflects an estimated count of the equipment added as part of the NGCC project as of the date of issuance of this permit V-26-036 but is not intended to limit the permittee to the exact numbers specified. The permittee may add or remove pipeline equipment without a permit revision as long as the equipment continues to comply with the applicable requirements listed below and the changes do not result in a significant increase in emissions on potential to emit.

Control Device: AVO Inspections
Construction Commenced: Proposed June 2026

APPLICABLE REGULATIONS:
401 KAR 51:017, *Prevention of significant deterioration of air quality* (VOC and CO_2e)

STATE-ORIGIN REQUIREMENT:
401 KAR 63:020, *Potentially hazardous matter or toxic substances*

1. **Operating Limitations:**
   a. The permittee shall implement an audio/visual/olfactory (AVO) leak detection program as BACT for the purpose of detecting leaks of natural gas. The permittee shall operate according to the provisions of this program at all times. The program shall be incorporated into the plant's standard operating procedures and shall be made available for the Division's inspection.[401 KAR 51:017]

   b. The permittee shall repair each identified source of natural gas leaks as soon as practicable, but no later than 15 calendar days after detection of the natural gas leak(s). If repairs cannot be completed within 15 calendar days, the permittee shall notify the Division as soon as practicable to request additional time to complete the repairs. [401 KAR 51:017]

   ***Compliance Demonstration Method*:**
   Compliance shall be demonstrated according to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements** a. and b., and **6. Specific Reporting Requirements**.

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

2. Emission Limitations:

The permittee shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. The permittee shall not 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. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the Cabinet. [401 KAR 63:020, Section 3]

***Compliance Demonstration Method*:**

Based upon the emission rates of toxic and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance with 401 KAR 63:020.

3. Testing Requirements:

Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1]

4. Specific Monitoring Requirements:

The permittee shall monitor all natural gas piping components for leaks using an AVO leak detection program no less frequently than once per month. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a copy of the AVO plan as well as any revisions. [401 KAR 51:017]

b. The permittee shall maintain records of leaks detected as a result of the AVO leak detection program, including, but not limited to, the date the leak was identified, location of the leak, date corrective action was taken, and description of the corrective action taken. [401 KAR 52:020, Section 10]

c. The permittee shall maintain records of the number of natural gas piping components (valves, connectors, pressure relief valves, and sampling connections) added to the facility as part of the NGCC project. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

a. The permittee shall submit a copy of the AVO plan to be approved by the Division no later than 180 days after startup of the facility. [401 KAR 52:020, Section 10]

b. The permittee shall include, in the semiannual monitoring report, any time leaks were detected as a result of the AVO leak detection program, including, but not limited to, the date the leak was identified, location of the leak, date corrective action was taken, and description of the corrective action taken. [401 KAR 52:020, Section 10]

c. See **Section F –Monitoring, Recordkeeping and Reporting Requirements** for general reporting requirements.

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

Emission Unit 70 Sulfuric Acid Storage Tank

Description:
Storage tank storing 93wt% aqueous sulfuric acid
Maximum Capacity: 12,200 gallons
Construction Commenced: June 2026

APPLICABLE REGULATIONS:
401 KAR 51:017, *Prevention of significant deterioration of air quality* (H_2SO_4)

1. **Operating Limitations:**
   The permittee shall follow the manufacturer's recommended procedures for filling, storing, and emptying the sulfuric acid storage tank for BACT. [401 KAR 51:017]

   ***Compliance Demonstration Method*:**
   Compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements** b.

2. **Emission Limitations:**
   N/A

3. **Testing Requirements:**
   Testing shall be conducted at such times as may be required by the Cabinet. [401 KAR 50:045, Section 1]

4. **Specific Monitoring Requirements:**
   The permittee shall monitor the amount of sulfuric acid stored (in gallons) on a monthly basis. [401 KAR 52:020, Section 10]

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall maintain records of the amount of sulfuric acid stored (in gallons) on a monthly basis. [401 KAR 52:020, Section 10]

   b. The permittee shall maintain on site and ready for expeditious review, the manufacturer's recommended procedures for filling, storing, and emptying the sulfuric acid storage tank. [401 KAR 52:020, Section 10]

6. **Specific Reporting Requirements:**
   See **Section F –Monitoring, Recordkeeping and Reporting Requirements** for general reporting requirements.

SECTION C - INSIGNIFICANT ACTIVITIES

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

	Description	Generally Applicable Regulation
1.	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 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
31.	Slipstream Carbon Dioxide (CO_2) capture System – Research	401 KAR 63:010

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

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, 3@ 550, 1,100 gallons) T-19 (Limestone Pile Equip Refueling) T-24, T-35 (Coal Yard) T-36, T-37 (Landfill) T-38 (Carey Farm)	None
40. Mobile Diesel Fuel Tank (251 gallons/square tank) T-39 (Stored in CT Warehouse when not in use)	None
41. Unit 3 Propylene Glycol Tank (3,000 gal)	None
42. Hydroelectric Building Lube Oil Tanks (T-31 and T-32)	None
43. CT Plant Maintenance Shop Parts Washer (Non-VOC Solvent)	None
44. Unit 3 Hydrazine Monohydrate Tote (189 gal)	None
45. Crusher House Cleanup Operations (Vacuum Recycle System and Recovery Cyclone)	401 KAR 59:010
46. Anhydrous Ammonia Tank (BR CT Ice Plant)	401 KAR 63:020
47. Anhydrous Ammonia Tanks (BR3 SCR)	401 KAR 63:020
48. Aqueous Ammonia (19%) Tank (BR12)	401 KAR 63:020
49. Existing Natural Gas Piping Fugitives	401 KAR 63:020

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]

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

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

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place as defined in this permit, and time of sampling or measurements;

   b. Analyses performance dates;

   c. Company or entity that performed analyses;

   d. Analytical techniques or methods used;

   e. Analyses results; and

   f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five (5) years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]

3. In accordance with the requirements of 401 KAR 52:020, Section 3(1)h, the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;

   b. To access and copy any records required by the permit:

   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

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

5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation. [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.

   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.

8. The 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.

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

9. Pursuant to 401 KAR 52:020, Title V permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
   a. Identification of the term or condition;

   b. Compliance status of each term or condition of the permit;

   c. Whether compliance was continuous or intermittent;

   d. The method used for determining the compliance status for the source, currently and over the reporting period.

   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

   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.

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:
      i. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;

      ii. The Cabinet or the United States Environmental Protection Agency (U. S. EPA) determines that the permit must be revised or revoked to assure compliance with the applicable requirements;

      iii. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

      iv. New requirements become applicable to a source subject to the Acid Rain Program.

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

   d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit. [Sections 1a- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]

SECTION G - GENERAL PROVISIONS (CONTINUED)

e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division. [401 KAR 52:020, Section 3(1)(c)]

f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority. [401 KAR 52:020, Section 7(1)]

g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [Section 1a-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]

h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [Section 1a-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]

i. All emission limitations and standards contained in this permit shall be enforceable as a practical matter. All emission limitations and standards contained in this permit are enforceable by the U.S. EPA and citizens except for those specifically identified in this permit as state-origin requirements. [Section 1a-15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]

j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6). [Section 1a-10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]

k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 52:020, Section 11(3) 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.]

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:
   i. Applicable requirements that are included and specifically identified in this permit; and

   ii. Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements
   a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six (6) months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 52:020, Section 12]

   b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets. [401 KAR 52:020, Section 8(2)]

3. Permit Revisions
   a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).

   b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements
   Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of and modifications to the equipment described herein in accordance with the terms and conditions of this permit (V-26-036): EUs 58 through 70.

SECTION G - GENERAL PROVISIONS (CONTINUED)

a. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

b. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, notification of the following:
   i. The date when construction commenced.

   ii. The date of start-up of the affected facilities listed in this permit.

   iii. The date when the maximum production rate specified in the permit application was achieved.

c. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.

d. Pursuant to 401 KAR 50:055, Section 2(1)(a), an owner or operator of any affected facility subject to any standard within the administrative regulations of the Division for Air Quality shall demonstrate compliance with the applicable standard(s) within sixty (60) days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up of such facility. Pursuant to 401 KAR 52:020, Section 3(3)(c), sources that have not demonstrated compliance within the timeframes prescribed in 401 KAR 50:055, Section 2(1)(a), shall operate the affected facility only for purposes of demonstrating compliance unless authorized under an approved compliance plan or an order of the cabinet.

e. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. Testing must also be conducted in accordance with General Provisions G.5 of this permit.

f. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

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 NO_x 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:
      i. An emergency occurred and the permittee can identify the cause of the emergency;

      ii. The permitted facility was at the time being properly operated;

      iii. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and

SECTION G - GENERAL PROVISIONS (CONTINUED)

iv. 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.

v. This requirement does not relieve the source of other local, state or federal notification requirements.

b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement. [401 KAR 52:020, Section 24(3)]

c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:020, Section 24(2)]

8. Ozone Depleting Substances

a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

i. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.

ii. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.

iii. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

iv. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.155.

v. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156 and 40 CFR 82.157.

vi. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

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.

SECTION H - ALTERNATE OPERATING SCENARIOS

N/A

SECTION I - COMPLIANCE SCHEDULE

40 CFR 64, Compliance Assurance Monitoring (CAM) applies to Emission Unit 58 (Combined Cycle Combustion Turbine with HRSG) for VOC. The permittee shall submit a CAM plan meeting the requirements of 40 CFR 64 upon submittal of the first permit application for a significant permit revision affecting emissions from a Large pollutant-specific emission unit (PSEU), as defined in 40 CFR 64, or upon submittal of the first Title V renewal application. [40 CFR 64.5(a)(3)]

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, Title V permits, 401 KAR 52:060, Acid rain permits, and 40 CFR part 76, Acid Rain Nitrogen Oxides Emission Reduction Program.

2. **Permit Requirements:**
   This Acid Rain Permit covers Acid Rain Unit 3 (Emission Unit 03), Units 5-11 (Emission Units 23-29), and Unit 12 (Emission Unit 58) at the E.W. Brown Station (ORIS Code: 001355). Unit 3 is a coal-fired base load electric generating unit. Units 5-11 are natural gas- or distillate oil-fired peaking combustion turbines. Unit 12 is a natural gas-fired combined cycle combustion turbine for base load operations. The Acid Rain permit application and NO_x Compliance Plan received on March 27, 2025, 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	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A
7	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A
9	N/A	N/A	N/A	N/A
10	N/A	N/A	N/A	N/A
11	N/A	N/A	N/A	N/A
12	N/A	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 SO_2 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]

SECTION J – ACID RAIN (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]

   i. The actual Btu-weighted annual average NO_x emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_x emission rate for the same units had they been operated, during the same period of time, in compliance with the individual applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7 and listed in Subsection 3(a).

   ii. For each unit, if the designated representative demonstrates that the requirement of Subsection 4(b)(1) is met for the plan year, then the unit shall be deemed to be in compliance for the year with its ACEL and associated heat input limit in Subsection 3.

   iii. If the designated representative cannot make the demonstration in Subsection 4(b)(1), according to 40 CFR 76.11(d)(1)(ii)(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.

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

SECTION K – CLEAN AIR INTERSTATE RULE (CAIR)

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

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 2 Trading Program, and CSAPR SO_2 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			
Unit ID: Emission Unit 58 (Unit 12)					
SO_2		X			
NO_X	X				
Heat input		X			

1. The above description of the monitoring used by a unit does not change, create an exemption from, or otherwise affect the monitoring, recordkeeping, and reporting requirements applicable to the unit under 40 CFR 97.430 through 97.435 (CSAPR NO_x Annual Trading Program), 97.830 through 97.835 (CSAPR NO_x Ozone Season Group 2 Trading Program), and 97.630

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

through 97.635 (CSAPR SO_2 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.

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: https://easey.epa.gov/ecmps/monitoring-plans

3. Owners and operators that want to use an alternative monitoring system must submit to the Administrator a petition requesting approval of the alternative monitoring system in accordance with 40 CFR part 75, subpart E and 40 CFR 75.66 and 97.435 (CSAPR NO_x Annual Trading Program), 97.835 (CSAPR NO_x Ozone Season Group 2 Trading Program), and/or 97.635 (CSAPR SO_2 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 requirement under 40 CFR 97.430 through 97.434 (CSAPR NO_x Annual Trading Program), 97.830 through 97.834 (CSAPR NO_x Ozone Season Group 2 Trading Program), and/or 97.630 through 97.634 (CSAPR SO_2 Group 1 Trading Program) must submit to the Administrator a petition requesting approval of the alternative in accordance with 40 CFR 75.66 and 97.435 (CSAPR NO_x Annual Trading Program), 97.835 (CSAPR NO_x Ozone Season Group 2 Trading Program), and/or 97.635 (CSAPR SO_2 Group 1 Trading Program). The Administrator's response approving or disapproving any petition for an alternative to a monitoring, recordkeeping, or reporting requirement is available on the EPA's website at http://www.epa.gov/airmarkets/part-75- petition-responses.

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 SO_2 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))

i. Designated representative requirements.

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

ii. Emissions monitoring, reporting, and recordkeeping requirements.

a. 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 40 CFR 97.430 through 97.435.

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

b. The emissions data determined in accordance with 40 CFR 97.430 through 97.435 shall be used to calculate allocations of CSAPR NO_x Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 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 40 CFR 97.430 through 97.435 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

iii. NO_x emissions requirements.

a. CSAPR NO_x Annual emissions limitation.

1. 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 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.

2. 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 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 40 CFR part 97, subpart AAAAA and the Clean Air Act.

b. CSAPR NO_x Annual assurance provisions.

1. 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 40 CFR 97.425(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.425(b), of multiplying:

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

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 CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state for such control period exceed the state assurance level.

2. 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 the year of such control period.

3. 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 40 CFR 97.410(a) and the state's variability limit under 40 CFR 97.410(b).

4. It shall not be a violation of 40 CFR part 97, subpart AAAAA or of the Clean Air Act if total NO_x emissions from all 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.

5. 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 40 CFR part 97, subpart AAAAA and the Clean Air Act.

c. Compliance periods.
   1. 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 40 CFR 97.430(b) and for each control period thereafter.

   2. 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

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

meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.

d. Vintage of CSAPR NO_x Annual allowances held for compliance.
   1. 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 must be a CSAPR NO_x Annual allowance that was allocated or auctioned for such control period or a control period in a prior year.

   2. A CSAPR NO_X Annual allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (c)(2)(i) through (iii) above for a control period in a given year must be a CSAPR NO_x Annual 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.

e. 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 40 CFR part 97, subpart AAAAA.

f. 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:
   1. Such authorization shall only be used in accordance with the CSAPR NO_x Annual Trading Program; and

   2. Notwithstanding any other provision of 40 CFR part 97, subpart AAAAA, 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.

g. Property right. A CSAPR NO_x Annual allowance does not constitute a property right.

iv. Title V permit revision requirements.

a. No title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_x Annual allowances in accordance with 40 CFR part 97, subpart AAAAA.

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

b. A description of whether a unit is required to monitor and report NO_x emissions using a continuous emission monitoring system (under 40 CFR part 75, subpart H), an excepted monitoring system (under 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (under 40 CFR 75.19), and an alternative monitoring system (under 40 CFR part 75, subpart E) in accordance with 40 CFR 97.430 through 97.435 may be added to, or changed in, a title V permit using minor permit modification procedures in accordance with 40 CFR 70.7(e)(2) and 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 70.7(e)(2)(i)(B) and 71.7(e)(1)(i)(B).

v. Additional recordkeeping and reporting requirements.

a. 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 keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

1. The certificate of representation under 40 CFR 97.416 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 40 CFR 97.416 changing the designated representative.

2. All emissions monitoring information, in accordance with 40 CFR part 97, subpart AAAAA.

3. 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.

b. 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 40 CFR 97.418. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

vi. Liability.

a. 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.

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

b. 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.

vii. Effect on other authorities.

No provision of the CSAPR NO_x Annual Trading Program or exemption under 40 CFR 97.405 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a 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 2 Trading Program Requirements (40 CFR 97 Subpart EEEEE)

i. 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 97.813 through 97.818.

ii. Emissions monitoring, reporting, and recordkeeping requirements.

a. The owners and operators, and the designated representative, of each CSAPR NO_x Ozone Season Group 2 source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.830 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.831 (initial monitoring system certification and recertification procedures), 97.832 (monitoring system out-of-control periods), 97.833 (notifications concerning monitoring), 97.834 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.835 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements)

b. The emissions data determined in accordance with 40 CFR 97.830 through 97.835 shall be used to calculate allocations of CSAPR NO_x Ozone Season Group 2 allowances under 40 CFR 97.811(a)(2) and (b) and 97.812 and to determine compliance with the CSAPR NO_x Ozone Season Group 2 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 97.830 through 97.835 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

iii. NO_x emissions requirements.

a. CSAPR NO_x Ozone Season Group 2 emissions limitation.

1. 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 2 source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall hold, in the source's compliance account, CSAPR NO_x Ozone Season Group 2 allowances available for deduction for such control period under 40 CFR 97.824(a) in an amount not less than the tons of total

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

NO_x emissions for such control period from all CSAPR NO_x Ozone Season Group 2 units at the source.

2. If total NO_X emissions during a control period in a given year from the CSAPR NO_x Ozone Season Group 2 units at a CSAPR NO_x Ozone Season Group 2 source are in excess of the CSAPR NO_x Ozone Season Group 2 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 2 unit at the source shall hold the CSAPR NO_x Ozone Season Group 2 allowances required for deduction under 40 CFR 97.824(d); and

   B. The owners and operators of the source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart EEEEE and the Clean Air Act.

b. CSAPR NO_x Ozone Season Group 2 assurance provisions.
   1. If total NO_x emissions during a control period in a given year from all CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x Ozone Season Group 2 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 2 allowances available for deduction for such control period under 40 CFR 97.825(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 97.825(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 2 units at base CSAPR NO_x Ozone Season Group 2 sources in the state for such control period exceed the state assurance level.

   2. The owners and operators shall hold the CSAPR NO_x Ozone Season Group 2 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.

   3. Total NO_x emissions from all CSAPR NO_x Ozone Season Group 2 units at base CSAPR NO_x Ozone Season Group 2 sources in a state during a control period in a given year

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

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 2 trading budget under 40 CFR 97.810(a) and the state's variability limit under 40 CFR 97.810(b).

4. It shall not be a violation of 40 CFR part 97, subpart EEEEE or of the Clean Air Act if total NO_x emissions from all base CSAPR NO_x Ozone Season Group 2 units at base CSAPR NO_x Ozone Season Group 2 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 2 units at base CSAPR NO_x Ozone Season Group 2 sources in the state during a control period exceeds the common designated representative's assurance level.

5. To the extent the owners and operators fail to hold CSAPR NO_x Ozone Season Group 2 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 2 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart EEEEE and the Clean Air Act.

c. Compliance periods.
   1. A CSAPR NO_x Ozone Season Group 2 unit shall be subject to the requirements under paragraph (c)(1) and (2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.830(b) and for each control period thereafter.

d. Vintage of CSAPR Ozone Season Group 2 allowances held for compliance.
   1. A CSAPR NO_x Ozone Season Group 2 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a CSAPR NO_x Ozone Season Group 2 allowance that was allocated or auctioned for such control period or a control period in a prior year.

   2. A CSAPR NO_x Ozone Season Group 2 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (c)(2)(i) through (iii) above for a control period in a given year must be a CSAPR NO_x Ozone Season Group 2 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.

   3. Except as provided in paragraph (c)(4)(iv) below, a CSAPR NO_x Ozone Season Group 2 allowance held for compliance with the requirements under paragraphs (c)(1)(i), (c)(1)(ii)(A), and (c)(2)(i) through (iii) above shall be a CSAPR NO_x Ozone Season Original Group 2 allowance.

   4. A CSAPR NO_x Ozone Season Group 2 allowance held for compliance with the requirements under paragraphs (c)(1)(i), (c)(1)(ii)(A), and (c)(2)(i) through (iii) above

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

for a source or group of sources in a state listed in 40 CFR 52.38(b)(2)(ii)(D)(*1*) for a control period after 2022 must be a CSAPR NO_x Ozone Season Expanded Group 2 allowance.

e. Allowance Management System requirements. Each CSAPR NO_x Ozone Season Group 2 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart EEEEE.

f. Limited authorization. A CSAPR NO_x Ozone Season Group 2 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:
   1. Such authorization shall only be used in accordance with the CSAPR NO_x Ozone Season Group 2 Trading Program; and

   2. Notwithstanding any other provision of 40 CFR part 97, subpart EEEEE, 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.

g. Property right. A CSAPR NO_x Ozone Season Group 2 allowance does not constitute a property right.

iv. Title V permit requirements.

a. No title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_x Ozone Season Group 2 allowances in accordance with 40 CFR part 97, subpart EEEEE.

b. A description of whether a unit is required to monitor and report NO_x emissions using a continuous emission monitoring system (under 40 CFR part 75, subpart H), an excepted monitoring system (under 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (under 40 CFR 75.19), or an alternative monitoring system (under 40 CFR part 75, subpart E) in accordance with 40 CFR 97.830 through 97.835 may be added to, or changed in, a title V permit using minor permit modification procedures in accordance with 40 CFR 70.7(e)(2) and 71.1(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 71.7(e)(1)(i)(B).

v. Additional recordkeeping and reporting requirements.

a. Unless otherwise provided, the owners and operators of each CSAPR NO_x Ozone Season Group 2 source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
   1. The certificate of representation under 40 CFR 97.816 for the designated representative for the source and each CSAPR NO_x Ozone Season Group 2 unit at the source and all

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

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 97.816 changing the designated representative.

2. All emissions monitoring information, in accordance with 40 CFR part 97, subpart EEEEE.

3. 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 2 Trading Program.

b. The designated representative of a CSAPR NO_x Ozone Season Group 2 source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall make all submissions required under the CSAPR NO_x Ozone Season Group 2 Trading Program, except as provided in 40 CFR 97.818. 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.

vi. Liability.

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

b. Any provision of the CSAPR NO_x Ozone Season Group 2 Trading Program that applies to a CSAPR NO_x Ozone Season Group 2 unit or the designated representative of a CSAPR NO_x Ozone Season Group 2 unit shall also apply to the owners and operators of such unit.

vii. Effect on other authorities.

No provision of the CSAPR NO_x Ozone Season Group 2 Trading Program or exemption under 40 CFR 97.805 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO_x Ozone Season Group 2 source or CSAPR NO_x Ozone Season Group 2 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

CSAPR SO_2 Group 1 Trading Program requirements (401 KAR 51:260, Section 3(4))

i. Designated representative requirements.

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

ii. Emissions monitoring, reporting, and recordkeeping requirements.

a. The owners and operators, and the designated representative, of each CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.630 through 97.635.

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b. The emissions data determined in accordance with 40 CFR 97.630 through 97.635 shall be used to calculate allocations of CSAPR SO_2 Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the CSAPR SO_2 Group 1 emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.630 through 97.635 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

iii. SO_2 emissions requirements.

a. CSAPR SO_2 Group 1 emissions limitation.

1. As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall hold, in the source's compliance account, CSAPR SO_2 Group 1 allowances available for deduction for such control period under 40 CFR 97.624(a) in an amount not less than the tons of total SO_2 emissions for such control period from all CSAPR SO_2 Group 1 units at the source.

2. If total SO_2 emissions during a control period in a given year from the CSAPR SO_2 Group 1 units at a CSAPR SO_2 Group 1 source are in excess of the CSAPR SO_2 Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then:
   A. The owners and operators of the source and each CSAPR SO_2 Group 1 unit at the source shall hold the CSAPR SO_2 Group 1 allowances required for deduction under 40 CFR 97.624(d); and

   B. The owners and operators of the source and each CSAPR SO_2 Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation 40 CFR part 97, subpart CCCCC and the Clean Air Act.

b. CSAPR SO_2 Group 1 assurance provisions.

1. If total SO_2 emissions during a control period in a given year from all CSAPR SO_2 Group 1 units at CSAPR SO_2 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 SO_2 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 SO_2 Group 1 allowances available for deduction for such control period under 40 CFR 97.625(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.625(b), of multiplying-
   A. The quotient of the amount by which the common designated representative's share of such SO_2 emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by

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which each common designated representative's share of such SO_2 emissions exceeds the respective common designated representative's assurance level; and

B. The amount by which total SO_2 emissions from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state for such control period exceed the state assurance level.

2. The owners and operators shall hold the CSAPR SO_2 Group 1 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.

3. Total SO_2 emissions from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state during a control period in a given year exceed the state assurance level if such total SO_2 emissions exceed the sum, for such control period, of the state SO_2 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).

4. It shall not be a violation of 401 KAR 51:260, or of the Clean Air Act if total SO_2 emissions from all CSAPR SO_2 Group 1 units at CSAPR SO_2 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 SO_2 emissions from the CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state during a control period exceeds the common designated representative's assurance level.

5. To the extent the owners and operators fail to hold CSAPR SO_2 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 SO_2 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.

c. Compliance periods.
   1. A CSAPR SO_2 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.

   2. A CSAPR SO_2 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.

d. Vintage of allowances held for compliance.

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1. A CSAPR SO_2 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 SO_2 Group 1 allowance that was allocated for such control period or a control period in a prior year.

2. A CSAPR SO_2 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 SO_2 Group 1 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.

e. Allowance Management System requirements. Each CSAPR SO_2 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.

f. Limited authorization. CSAPR SO_2 Group 1 allowance is a limited authorization to emit one ton of SO_2 during the control period in one year. Such authorization is limited in its use and duration as follows:
   1. Such authorization shall only be used in accordance with the CSAPR SO_2 Group 1 Trading Program; and

   2. 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.

g. Property right. CSAPR SO_2 Group 1 allowance does not constitute a property right.

iv. Title V permit revision requirements.

a. No Title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR SO_2 Group 1 allowances in accordance with 401 KAR 51:260.

b. 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).

v. Additional recordkeeping and reporting requirements.

a. Unless otherwise provided, the owners and operators of each CSAPR SO_2 Group 1 source and each CSAPR SO_2 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

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the end of 5 years, in writing by the Administrator.

1. The certificate of representation under 401 KAR 51:260, Section 3(13) for the designated representative for the source and each CSAPR SO_2 Group 1 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.616 changing the designated representative.

2. All emissions monitoring information, in accordance with 401 KAR 51:260.

3. 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 SO_2 Group 1 Trading Program.

b. The designated representative of a CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall make all submissions required under the CSAPR SO_2 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.

vi. Liability.

a. Any provision of the CSAPR SO_2 Group 1 Trading Program that applies to a CSAPR SO_2 Group 1 source or the designated representative of a CSAPR SO_2 Group 1 source shall also apply to the owners and operators of such source and of the CSAPR SO_2 Group 1 units at the source.

b. Any provision of the CSAPR SO_2 Group 1 Trading Program that applies to a CSAPR SO_2 Group 1 unit or the designated representative of a CSAPR SO_2 Group 1 unit shall also apply to the owners and operators of such unit.

vii. Effect on other authorities.

No provision of the CSAPR SO_2 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 SO_2 Group 1 source or CSAPR SO_2 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.