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:	**Tennessee Valley Authority**
Mailing Address:	**1101 Market Street** **Chattanooga, TN 37402-2801**
Source Name:	**TVA - Paradise Combined Cycle Plant**
Mailing Address:	**5562 Rockport Paradise Road** **Drakesboro, KY 42337-2345**
Source Location:	**Same as above**
Permit ID:	**V-26-011**
Agency Interest #:	**127687**
Activity ID:	**APE20240002**
Review Type:	**Title V, Operating**
Source ID:	**21-177-00006**
Regional Office:	**Owensboro Regional Office** **3032 Alvey Park Dr. W., Suite 700** **Owensboro, KY 42303** **(270) 687-7304**
	County: Muhlenberg
Application Complete Date:	**August 1, 2024**
Issuance Date:	
Expiration Date:	

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

Version 4/1/2022

TABLE OF CONTENTS

Permit	Permit Type	Activity #	Complete Date	Issuance Date	Summary of Action
V-26-011	Renewal	APE20240002	8/1/2024		Removed EU 130, 133B, 133C, 133D, 134D, 134E, 135A, 135B, 135C, 135D, 136A, 136B, 136C, 144-146, 149, 150, 153, 154; Added EU 156 and 157; Added and Removed Insignificant Activities

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 120	**Combined Cycle (1) - HRSG(1)/CT(1)/Duct Burners (1)**
Emission Unit 121	**Combined Cycle (2) - HRSG(2)/CT(2)/Duct Burners (2)**
Emission Unit 122	**Combined Cycle (3) - HRSG(3)/CT(3)/Duct Burners (3)**

Description:
Combined Cycle Operations (three individual Combustion Turbines (CT), each with a Heat Recovery Steam Generator (HRSG) connected with one steam generator):
Each CT operates in combination with one HRSG. Each HSRG receives heat from its CT and one to three CT(s)/HRSG(s) provide heat for one Steam Turbine Generator (ST) for Electric Generation.
Operating unit CT/HRSG emissions exit from their HSRG stacks in Combined Cycle operation. The HSRGs are equipped with Natural Gas-Fired Duct Burners that supplement heat as needed. Only fuel utilized in this operation is Natural Gas.

Model:	General Electric 7FA.05
Maximum Rated Capacity:	Combustion Turbine, 235 MW (2,300 MMBtu/hr), each Duct Burners for HRSGs, 400 MMBtu/hr, each Steam Turbine Generator, 470 MW
Construction Date:	2015
Emission Control Devices:	Selective Catalytic Reduction (SCR), Low NO_x Burners, and Catalytic Oxidation is inherent for each HRSG operation.

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

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

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, *Cross-State Air Pollution Rule (CSAPR) NO_x annual trading program* (See Section L)
401 KAR 51:250, *Cross-State Air Pollution Rule (CSAPR) NO_x ozone season group 2 trading program* (See Section L)
401 KAR 51:260, *Cross-State Air Pollution Rule (CSAPR) SO_2 group 1 trading program* (See Section L)

401 KAR 52:060, *Acid rain permits*, incorporating 40 CFR Parts 72 to 78 (See Section J)

401 KAR 60:005, Section 2(2)(ffff), 40 CFR 60.4300 through 60.4420, Table 1 (**Subpart KKKK**), *Standards of Performance for Stationary Combustion Turbines*

401 KAR 60:005, Section 2(2)(jjjj), 40 CFR 60.5508 through 60.5580, Tables 1 through 3 (**Subpart TTTT**), *Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units*

40 CFR Part 75, *Continuous Emission Monitoring*

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

STATE-ORIGIN REQUIREMENT:
401 KAR 63:020, *Potentially hazardous matter or toxic substances*

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

NON-APPLICABLE REGULATION:
401 KAR 63:002, Section 2(4)(dddd), 40 CFR 63.6080 through 63.6175, Table 1 through 7 (**Subpart YYYY**), *National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines*

1. **Operating Limitations:**
   a. The permittee shall operate and maintain each 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 60.4333(a)]. The Administrator will determine the use of consistent operation and maintenance procedures based on information available to the Administrator that may include, but is not limited to, fuel use records, monitoring results, review of operation and maintenance procedures and records, review of reports required by 40 CFR 60, Subpart TTTT, and inspection of the CT [40 CFR 60.5525(b)].

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

   b. For the initial and each subsequent 12-operating-month rolling average compliance period, the permittee shall follow the procedures in 40 CFR 60.5540(a)(1) through (8) to calculate the CO_2 mass emissions rate for the affected EGU(s) in units of the applicable emissions standard (i.e., either kg/MWh or kg/GJ) [40 CFR 60.5540(a)].

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

         1. "Valid data" (as defined in 40 CFR 60.5580) are obtained for all of the parameters used to determine the hourly CO_2 mass emissions (kg) and, if a heat input-based standard applies, all the parameters used to determine total heat input for the hour are also obtained; and [40 CFR 60.5540(a)(1)(i)]

         2. 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 60.5540(a)(1)(ii)].

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

         1. The substitute data provisions of 40 CFR 75 are applied for any of the parameters used to determine the hourly CO_2 mass emissions or, if a heat input-based standard applies, for any parameters used to determine the hourly heat input; [40 CFR 60.5540(a)(2)(i)]

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

2. 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, if applicable, to determine the hourly heat input; or [40 CFR 60.5540(a)(2)(ii)]

3. The total gross or net energy output ($P_{gross/net}$) or, if applicable, the total heat input 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 shall be valid operating hours, as defined in 40 CFR 60.5540(a)(1) [40 CFR 60.5540(a)(3)].

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

v. Conditions regarding CO_2 mass emissions rate calculations for sources subject to output-based standards:

1. For each valid operating hour of the compliance period that was used in 40 CFR 60.5540(a)(4) to calculate the total CO_2 mass emissions, the permittee shall determine $P_{gross/net}$ (the corresponding hourly gross or net energy output in MWh) according to the procedures in 40 CFR 60.5540(a)(5)(i) and (ii), as appropriate for the type of affected EGU(s) [40 CFR 60.5540(a)(5)].

2. For an operating hour in which a valid CO_2 mass emissions value is determined according to 40 CFR 60.5540(a)(1)(i), if there is no gross or net electrical output, but there is mechanical or useful thermal output, the permittee shall still determine the gross or net energy output for that hour [40 CFR 60.5540(a)(5)].

3. For an operating hour in which a valid CO_2 mass emissions value is determined according to 40 CFR 60.5540(a)(1)(i), but there is no (i.e., zero) gross electrical, mechanical, or useful thermal output, the permittee shall use that hour in the compliance determination [40 CFR 60.5540(a)(5)].

4. 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 60.5540(a)(5)].

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

6. The permittee must calculate the basis (i.e., denominator) of the actual 12-operating month emission rate by summing the hourly gross or net energy output values for the affected EGU for all of the valid operating hours in the applicable compliance period. [40 CFR 60.5540(6) and (6)(i)]

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

7. The permittee must calculate the CO_2 mass emissions rate for the affected EGUs (kg/MWh) by dividing the total CO_2 mass emissions value by the total gross or net energy output value. Round off the result to two significant figured 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 60.5540(7)]

Duct Burner Only Requirements:

c. 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 7]:

i. The permittee shall comply with 401 KAR 50:055, Section 2(5); [401 KAR 59:015, Section 7(1)(a)]

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 impact 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, of the owner or operator of each affected facility during startup periods and shutdown periods, 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: [401 KAR 59:015, Section 7(1)(e)]

1. The manufacturer's recommended procedures; or [401 KAR 59:015, Section 7(1)(e)1.]

2. 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)2.].

2. Emission Limitations:

a. The exhaust from each Combustion Turbine stack shall not contain NO_x emissions that exceed 15 ppm at 15 percent O_2 or 54 ng/J of useful output (0.43 lb/MWh) [40 CFR 60.4320(a) referencing Table 1 to 40 CFR 60, Subpart KKKK and 40 CFR 60.4320(b)].

Compliance Demonstration Method:
Continuous compliance shall be demonstrated according to **4. Specific Monitoring Requirements d.i.** and **d.ii.**

b. The permittee shall not combust in the Combustion Turbine any fuel that contains total potential sulfur emissions in excess of 26 nanograms of SO_2 per Joule (ng SO_2/J) (0.060 lb SO_2/MMBtu) heat input [40 CFR 60.4330(a)(2)].

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

Compliance Demonstration Method:
Compliance shall be demonstrated according to **3. Testing Requirements a.** and **4. Specific Monitoring Requirements f.**

c. The permittee shall not discharge from any affected EGU into the atmosphere any gases that contain CO_2 in excess of 1,000 lb CO_2/MWh of gross energy output (or 1,030 lb/MWh of net energy output) based on a 12-operating-month rolling average basis, and shall apply to the affected EGU at all times. [40 CFR 60.5520(a), (b), 60.5525(a)(1), and 40 CFR 60 Subpart TTTT Table 2, Item 1]. The *Affected EGU* is a *"combustion turbine that supplies more than the design efficiency or 50 percent, whichever is less, times its potential electric output as net-electric sales on both a 12-operating month and a 3-year rolling average basis and combusts more than 90% natural gas on a heat input basis on a 12-operating-month rolling average basis*" [40 CFR 60 Subpart TTTT, Table 2, Item 1].

Compliance Demonstration Method:
In accordance with 40 CFR 60.5520, 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 emission rate for the affected EGU shall be determined according to the procedures specified in 40 CFR 60.5540(a)(1) through (8) and shall be less than or equal to the applicable CO_2 emissions standard calculated in accordance with 40 CFR 60.5525(a)(2) [40 CFR 60.5540(b)]. The permittee shall maintain records of the information used to demonstrate compliance as specified in 40 CFR 60.7(b) and (f) [40 CFR 60.5560(a)]. See **4. Specific Monitoring Requirements f.**, and **5. Specific Recordkeeping Requirements f.**, **g.**, **k.**, and **l.**

d. Persons responsible for a source from which hazardous matter or toxic substances may be emitted 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. 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. 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 toxics 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.

For the Duct Burners:

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

f. The exhaust from each affected unit shall not exceed twenty (20) percent opacity, except [401 KAR 59:015, Section 4(2)]:

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

i. For a source with heat input capacity totaling 250 MMBtu/hr or more for all affected facilities at the source, a maximum of twenty-seven (27) percent opacity shall be allowed for one (1) six (6) minute period in any sixty (60) consecutive minutes; [401 KAR 59:015, Section 4(2)(a)]

ii. For emissions from an affected facility caused by building a new fire, emissions during the period required to bring the boiler up to 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)].

g. Sulfur dioxide (SO_2) emissions shall not exceed 0.8 lb/MMBtu from each affected unit [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 subsequent SO_2 performance tests according to the methodologies outlined in 40 CFR 60.4415(a), on an annual basis (no more than 14 calendar months following the previous performance test). There are four methodologies the permittee may use to conduct the performance tests [40 CFR 60.4415(a)].

i. The use of a current, valid purchase contract, tariff sheet, or transportation contract for the fuel specifying the maximum total sulfur content of all fuels combusted in the affected facility. Alternately, the fuel sampling data specified in 40 CFR 75, Appendix D, Section 2.3.1.4 or 2.3.2.4 may be used [40 CFR 60.4415(a)(1)].

ii. Periodically determine the sulfur content of the fuel combusted in the turbine, a representative fuel sample may be collected either by an automatic sampling system or manually. For automatic sampling, follow ASTM D5287 (incorporated by reference, see 40 CFR 60.17) for gaseous fuels. For manual sampling of gaseous fuels, follow API Manual of Petroleum Measurement Standards, Chapter 14, Section 1, GPA 2166, or ISO 10715 (all incorporated by reference, see 40 CFR 60.17). The fuel analyses of this section may be performed either by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency. Analyze the samples for the total sulfur content of the fuel using ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or GPA 2140, 2261, or 2377 (all incorporated by reference, see 40 CFR 60.17) [[40 CFR 60.4415(a)(2) and (a)(2)(ii)]

iii. Measure the SO2 concentration (in parts per million (ppm)), using EPA Methods 6, 6C, 8, or 20 in 40 CFR 60, Appendix A. In addition, the American Society of Mechanical Engineers (ASME) standard, ASME PTC 19-10-1981-Part 10, "Flue and Exhaust Gas Analyses," manual methods for sulfur dioxide (incorporated by reference, see 40 CFR 60.17) can be used instead of EPA Methods 6 or 20. For units complying with the output based standard, concurrently measure the stack gas flow rate, using EPA Methods 1 and 2 in 40 CFR 60, Appendix A, and measure and record the electrical

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

and thermal output from the unit. Then use the following equation to calculate the SO2 emission rate:

$$E = \frac{1.664 \times 10^{-7} \times (SO_2)_c \times Q_{std}}{P}$$

Where:
E = SO_2 emission rate, in lb/MWh
1.664×10^{-7} = conversion constant, in lb/dscf-ppm
$(SO_2)_c$ = average SO_2 concentration for the run, in ppm
Q_{std} = stack gas volumetric flow rate, in dscf/hr
P = gross electrical and mechanical energy output of the combustion turbine, in MW (for simple-cycle operation), for combined-cycle operation, the sum of all electrical and mechanical output from the combustion and steam turbines, or, for combined heat and power operation, the sum of all electrical and mechanical output from the combustion and steam turbines plus all useful recovered thermal output not used for additional electric or mechanical generation, in MW, calculated according to 40 CFR 60.4350(f)(2)
[40 CFR 60.4415(a)(3)]; or

iv. Measure the SO_2 and diluent gas concentrations, using either EPA Methods 6, 6C, or 8 and 3A, or 20 in 40 CFR 60, Appendix A. In addition, the permittee may use the manual methods for sulfur dioxide ASME PTC 19-10-1981-Part 10 (incorporated by reference, see 40 CFR 60.17). Concurrently measure the heat input to the unit, using a fuel flowmeter (or flowmeters), and measure the electrical and thermal output of the unit. Use EPA Method 19 in 40 CFR 60, Appendix A to calculate the SO_2 emission rate in lb/MMBtu. Then, use Equations 1 and, if necessary, 2 and 3 in 40 CFR 60.4350(f) to calculate the SO_2 emission rate in lb/MWh [40 CFR 60.4415(a)(4)].

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

a. The permittee shall monitor the amount of natural gas combusted (in MMscf) on a monthly basis [401 KAR 52:020 Section 10].

b. The permittee shall monitor the gross generation of each CT (in MWh/CT-year), as measured at the generator terminals, on a monthly basis [401 KAR 52:020, Section 10].

c. The permittee shall install, calibrate, maintain and operate continuous emission monitoring as follows [40 CFR 60.4340(b)(1) referencing 40 CFR 60.4335(b)]:

i. Install, certify, maintain, and operate a continuous emission monitoring system (CEMS) consisting of a NO_x monitor and a diluent gas (oxygen (O_2) or carbon dioxide (CO_2)) monitor, to determine the hourly NO_x emission rate in parts per million (ppm) or pounds per million British thermal units (lb/MMBtu) [40 CFR 60.4335(b)(1)]; and

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

ii. For units complying with the output-based standard, install, calibrate, maintain, and operate a fuel flow meter (or flow meters) to continuously measure the heat input to the affected unit [40 CFR 60.4335(b)(2)]; and

iii. For units complying with the output-based standard, install, calibrate, maintain, and operate a watt meter (or meters) to continuously measure the gross electrical output of the unit in megawatt-hours [40 CFR 60.4335(b)(3)].

d. The permittee shall meet the following NO_x CEMS equipment requirements [40 CFR 60.4345]:

i. Each NOx diluent CEMS shall be installed and certified according to Performance Specification 2 (PS 2) in Appendix B to 40 CFR part 60, except the 7-day calibration drift is based on unit operating days, not calendar days. With state approval, Procedure 1 in Appendix F to 40 CFR part 60 is not required. Alternatively, a NO_x diluent CEMS that is installed and certified according to Appendix A to 40 CFR part 75 is acceptable for use under 40 CFR 60, Subpart KKKK. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis [40 CFR 60.4345(a)].

ii. As specified in 40 CFR 60.13(e)(2), during each full unit operating hour, both the NO_x monitor and the diluent monitor shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point shall be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance (QA) and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NO_x emission rate for the hour [40 CFR 60.4345(b)].

iii. Each fuel flowmeter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, with state approval, fuel flowmeters that meet the installation, certification, and QA requirements of Appendix D to 40 CFR part 75 are acceptable for use under 40 CFR 60, Subpart KKKK [40 CFR 60.4345(c)].

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

v. The permittee shall develop and keep on-site a QA plan for all of the continuous monitoring equipment described in 40 CFR 60.4345(a), (c), and (d). For the CEMS and fuel flow meters, the permittee may, with state approval, satisfy these requirements by implementing the QA program and plan described in Section 1 of Appendix B to 40 CFR part 75 [40 CFR 60.4345(e)].

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

e. For purposes of identifying excess emissions [40 CFR 60.4350]:

i. All CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h) [40 CFR 60.4350(a)].

ii. For each unit operating hour in which a valid hourly average, as described in 40 CFR 60.4345(b), is obtained for both NO_x and diluent monitors, the data acquisition and handling system shall calculate and record the hourly NO_x emission rate in units of ppm or lb/MMBtu, using the appropriate equation from Method 19 in Appendix A to 40 CFR part 60. 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 60.4350(b)].

iii. Correction of measured NO_x concentrations to 15 percent O_2 is not allowed [40 CFR 60.4350(c)].

iv. States can approve that only quality assure data from the CEMS shall be used to identify excess emissions under 40 CFR 60, Subpart KKKK. Periods where the missing data substitution procedures in 40 CFR 75, Subpart D are applied are to be reported as monitor downtime in the excess emissions and monitoring performance report required under 40 CFR 60.7(c) [40 CFR 60.4350(d)]

v. All required fuel flow rate, steam flow rate, temperature, pressure, and megawatt data shall be reduced to hourly averages [40 CFR 60.4350(e)].

vi. Calculate the hourly average NO_x emission rates, in units of the emission standards under 40 CFR 60.4320, using either ppm for units complying with the concentration limit or the following equation for units complying with the output-based standard:

$$E = \frac{(NO_x)_h \times (HI)_h}{P}$$

Where:
E = hourly NO_x emission rate, in lb/MWh,
$(NO_x)_h$ = hourly NO_x emission rate, in lb/MMBtu,
$(HI)_h$ = hourly heat input rate to the unit, in MMBtu/h, measure using the fuel flowmeter(s), e.g., calculated using Equation D-15a in Appendix D to 40 CFR part 75, and
P = gross energy output of the combustion turbine system, calculated as the sum of the total electrical and mechanical energy generated by the CT, the additional electrical or mechanical energy (if any) generated by the steam turbine following the HRSG, and 100% of the total useful thermal energy output, measured relative to ISO conditions that is not used to generate additional electricity or mechanical output, expressed in equivalent MW
[40 CFR 60.4350(f)].

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

vii. For combined cycle units with heat recovery, use the calculated hourly average emission rates from 40 CFR 60.4350(f) to assess excess emissions on a 30-unit operating day rolling average basis, as described in 40 CFR 60.4380(b)(1) [40 CFR 60.4350(h)].

f. The permittee may elect not to monitor the total sulfur content of the fuel combusted in the turbine if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO_2/J (0.060 lb SO_2 /MMBtu) heat input. One of the following sources of information shall be used to make the required demonstration [40 CFR 60.4365]:

i. The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content for natural gas is 20 grains of sulfur or less per 100 standard cubic feet and has potential sulfur emissions of less than less than 26 ng SO_2/J (0.060 lb SO_2 /MMBtu) heat input [40 CFR 60.4365(a)]; or

ii. Representative fuel sampling data which shows that the sulfur content of the fuel does not exceed 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input. At a minimum, the amount of fuel sampling data specified in Section 2.3.1.4 or 2.3.2.4 of Appendix D to 40 CFR part 75 is required [40 CFR 60.4365(b)].

g. The permittee shall 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 TTTT. 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 60.5555(d) and (e)) [40 CFR 60.5535(a)].

h. The permittee shall determine the hourly CO_2 mass emissions in kg as follows: [40 CFR 60.5535(b)]

i. The permittee may install, certify, operate, maintain, and calibrate a CO_2 continuous monitoring system (CEMS) to directly measure and record hourly average CO_2 concentrations in the CT 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). 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 60.5535(b)(1)].

ii. For each continuous monitoring system that the permittee uses 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 in 40 CFR part 75. [40 CFR 60.5535(b)(2)]

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

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 40 CFR 75 Appendix A, Section 7.6.5 to the exhaust gas flow rate data [40 CFR 60.5535(b)(3)].

iv. The permittee must select an appropriate reference method to setup (characterize) the flow monitor and to perform the on-going RATAs, in accordance with 40 CFR 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 not use the 0.84 default Type-S pitot tube coefficient specified in Method 2 [40 CFR 60.5535(b)(4)].

v. The permittee shall calculate the hourly CO_2 mass emissions (kg) as described in 40 CFR 60.5535(b)(5)(i) through (iv). Perform this calculation only for "valid operating hours", as defined in 40 CFR 60.5540(a)(1) [40 CFR 60.5535(b)(5)].

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

2. 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 60.5535(b)(5)(ii)].

3. Finally, multiply the result from 40 CFR 60.5535(b)(5)(ii) by 907.2 to convert it from tons of CO2 to kg. Round off to the nearest kg [40 CFR 60.5535(b)(5)(iii)].

4. The hourly CO_2 tons/hr 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 these data to calculate the hourly CO_2 mass emissions [40 CFR 60.5535(b)(5)(iv)].

i. As an alternative to complying with 40 CFR 60.5535(b), the permittee may determine the hourly CO_2 mass emissions according to 40 CFR 60.5535(c)(1) through (4) as follows: [40 CFR 60.5535(c)]

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

ii. For each measured hourly heat input rate, use Equation G-4 in Appendix G to 40 CFR 75 to calculate the hourly CO_2 mass emission rate (tons/hr). The permittee may determine site-specific carbon-based F-factors (Fc) using Equation F-7b in 40 CFR 75 Appendix F, Section 3.3.6, and the permittee may use these Fc values in the emissions

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

calculations instead of using the default Fc values in the Equation G-4 nomenclature [40 CFR 60.5535(c)(2)].

iii. For each "valid operating hour" (as defined in 40 CFR 60.5540(a)(1)), multiply the hourly tons/h CO_2 mass emission rate from 40 CFR 60.5535(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 60.5535(c)(3)].

iv. The hourly CO_2 tons/hr 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 these data to calculate the hourly CO_2 mass emissions [40 CFR 60.5535(c)(4)].

j. 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(s). These measurements must be performed using 0.2 class electricity metering instrumentation and calibration procedures as specified under ANSI Standards No. C12.20 (incorporated by reference, see 40 CFR 60.17) [40 CFR 60.5535(d)(1)].

k. If two or more affected EGUs serve a common electric generator, the permittee shall apportion the combined hourly gross or net energy output to the individual affected EGUs according to the fraction of the total steam load contributed by each EGU. Alternatively, if the EGUs are identical, the permittee may apportion the combined hourly gross or net electrical load to the individual EGUs according to the fraction of the total heat input contributed by each EGU. The permittee may also elect to develop, demonstrate, and provide information satisfactory to the Administrator on alternate methods to apportion the gross energy output. The Administrator may approve such alternate methods for apportioning the gross energy output whenever the demonstration ensures accurate estimation of emissions regulated under 40 CFR 60, Subpart TTTT [40 CFR 60.5535(e)].

l. In accordance with 40 CFR 60.13(g) and 40 CFR 60.5520, if the exhaust gases from an affected EGU that implements the continuous emission monitoring provisions in 40 CFR 60.5535(b) are emitted to the atmosphere through multiple stacks (or if the exhaust gases are routed to a common stack through multiple ducts and the permittee elects to monitor in the ducts), the permittee must monitor the hourly CO_2 mass emissions and the "stack operating time" (as defined in 40 CFR 72.2) at each stack or duct separately. In this case, the permittee must determine compliance with the applicable emission standard in Table 2 of 40 CFR 60, Subpart TTTT by summing the CO_2 mass emissions measured at the individual stacks or ducts and dividing by the total gross or net energy output for the affected EGU [40 CFR 60.5535(g)].

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the amount of natural gas combusted (in MMscf) 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 gross generation of each CT (in MWh/CT-year), as measure at the generator terminals, 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. Simple cycle and combined cycle startup and shut down operations, including date and duration of each occurrence;
   ii. Weekly records for the continuous emission monitoring system data;
   iii. Weekly records of natural gas usage for each combustion turbine and duct burners;
   iv. Any maintenance and repair of air pollution control equipment and monitoring equipment; and
   v. Documents specifying the sulfur content of the natural gas combusted, such as valid purchase contracts or supplier fuel analyses.

d. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by 40 CFR 60, Subpart A recorded in a permanent form suitable for inspection [40 CFR 60.7(f)].

e. If the permittee elects not to demonstrate sulfur content using options in 40 CFR 60.4365, and the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded once per unit operating day. [40 CFR 60.4370(b)]

f. The permittee shall maintain records of the average CO_2 emissions rate from each stack on a monthly and 12-operating-month rolling average basis [40 CFR 60.5525(a)(1)].

g. The permittee shall keep records of the calculations performed to determine the hourly and total CO_2 mass emissions (tons) for [40 CFR 60.5560(c)]:
   i. Each operating month (for all affected EGUs); and [40 CFR 60.5560(c)(1)]
   ii. Each compliance period, including each 12-operating-month compliance period [40 CFR 60.5560(c)(2)].

h. The permittee shall follow the applicable recordkeeping requirements and maintain records as required under Subpart F of 40 CFR part 75 [40 CFR 60.5560(b)(1)].

i. The permittee shall keep records of the calculations performed to determine the hourly and total CO_2 mass emissions (tons for each operating month (for all affected EGUs); and each compliance period, including, each 12-operating-month compliance period. [40 CFR 60.5560(c)(1) and (c)(2)]

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

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

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

l. The permittee shall keep records of the calculations performed to assess compliance with the applicable CO_2 mass emissions standard [40 CFR 60.5560(f)].

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

n. For stationary combustion turbines, the permittee shall keep records of electric sales to determine the applicable subcategory [40 CFR 60.5560(h)].

o. The permittee shall maintain each record for 3 years after the date of conclusion of each compliance period [40 CFR 60.5565(b)].

p. The permittee shall maintain each record in a form suitable and readily available for expeditious review for 3 years after the date of conclusion of each compliance period and 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 TTTT. [40 CFR 60.5565(a), (b), and (c)]

6. Specific Reporting Requirements:

a. For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under 40 CFR 60, Subpart KKKK, the permittee shall submit reports of excess emissions and monitor downtime in accordance with 40 CFR 60.7(c), as defined in 40 CFR 60.4380 for NO_x and 40 CFR 60.4385 for SO_2. Excess emissions shall be reported for all periods of unit operation, including start-up, shutdown, and malfunction [40 CFR 60.4375(a)].

b. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows [40 CFR 60.4380]:

i. For turbines using continuous emission monitoring, as described in 40 CFR 60.4335(b) and 40 CFR 60.4345 [40 CFR 60.4380(b)]:

1. An excess emission is any unit operating period in which the 4-hour or 30-day rolling average NO_x emission rate exceeds the applicable emission limit in 40 CFR 60.4320. A "4-hour rolling average NO_x emission rate" is the arithmetic average of the average NO_x emission rate in ppm or ng/J (lb/MWh) measured by continuous emission monitoring equipment for a given hour and the three unit operating hour average NO_x emission rates immediately preceding that unit operating hour. Calculate the rolling average if a valid NO_x emission rate is obtained for at least 3 of the 4 hours. A "30-day rolling average NO_x emission rate" is the arithmetic

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

average of all hourly NO_x emission data in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given day and the 29 unit operating days immediately preceding that unit operating day. A new 30-day average is calculated each unit operating day as the average of all hourly NO_x emissions rates for the preceding 30 unit operating days if a valid NO_x emission rate is obtained for at least 75 percent of all operating hours [40 CFR 60.4380(b)(1)].

2. A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO_x concentration, CO_2 or O_2 concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if the permittee will use this information for compliance purposes [40 CFR 60.4380(b)(2)].

3. For operating periods during which multiple emissions standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple emissions standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard [40 CFR 60.4380(b)(3)].

c. 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 60.4395].

d. The permittee shall prepare and submit reports according to 40 CFR 60.7(a)(1) and (3) and 40 CFR 60.19, as applicable to the affected EGU(s) (see 40 CFR 60 Subpart TTTT, Table 3) [40 CFR 60.5550(a)].

e. The permittee shall prepare and submit notifications specified in 40 CFR 75.61, as applicable, to the affected EGU(s) [40 CFR 60.5550(b)].

f. The permittee shall prepare and submit reports according to 40 CFR 60.5555(a) through (d), as applicable [40 CFR 60.5555(a)]:

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

ii. In each quarterly report the permittee shall include the following information, as applicable [40 CFR 60.5555(a)(2)]:

1. 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 shall calculate each average CO_2 mass emissions rate for the

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

compliance period according to the procedures in 40 CFR 60.5540. The permittee shall 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 60.5555(a)(2)(i)];

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

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

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

5. Consistent with 40 CFR 60.5520, the CO_2 emissions standard (as identified in 40 CFR 60 Subpart TTTT Table 2) with which the affected EGU shall comply; and [40 CFR 60.5555(a)(2)(v)]

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

iii. In the final quarterly report of each calendar year, the permittee shall include the following [40 CFR 60.5555(a)(3)]:

1. Consistent with 40 CFR 60.5520, gross energy output or net energy output sold to an electric grid, as applicable to the units of the CO_2 emission standard, over the four quarters of the calendar year; and [40 CFR 60.5555(a)(3)(i)]

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

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

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

h. The permittee shall begin submitting the quarterly electronic emissions reports described in 40 CFR 60.5555(c)(1) in accordance with 40 CFR 75.64(a) (i.e., beginning with data recorded on and after the earlier of): [40 CFR 60.5555(c)(3)(i)]

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

1. The date of provisional certification, as defined in 40 CFR 75.20(a)(3), or [40 CFR 60.5555(c)(3)(i)(A)]

2. 180 days after the date on which the EGU commences commercial operation (as defined in 40 CFR 72.2 [40 CFR 60.5555(c)(3)(i)(B)].

i. 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 60.5555(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 60.5540(a)(1)), and shall not be used in the compliance determinations under 40 CFR 60.5540 [40 CFR 60.5555(c)(4)].

j. Reports required to be submitted under 40 CFR 60.5555(a) and (c)(1) shall be submitted by [40 CFR 60.5555(d)]:

i. The person appointed as the Designated Representative (DR) under 40 CFR 72.20; or [40 CFR 60.5555(d)(1)]

ii. The person appointed as the Alternate Designated Representative (ADR) under 40 CFR 72.22; or [40 CFR 60.5555(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 60.5555(d)(3)].

k. Records shall be in a form suitable and readily available for expeditious review [40 CFR 60.5565(a)].

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

a. The air pollution control equipment and monitoring equipment must be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction [40 CFR 60.4333(a), 40 CFR 60.5525(b), and 401 KAR 50:055, Section 2].

b. The Administrator will determine if the permittee is using consistent operation and maintenance procedures based on information available to the Administrator that may include, but is not limited to, fuel use records, monitoring results, review of operation and maintenance procedures and records, review of reports required by 40 CFR 60 Subpart TTTT, and inspection of the EGU [40 CFR 60.5525(b)].

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

8. Alternate Operating Scenarios:
Emission Unit 123 - Simple Cycle (1) – CT(1)
Emission Unit 124 - Simple Cycle (2) – CT(2)
Emission Unit 125 - Simple Cycle (3) – CT(3)

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

Description:

Simple Cycle Operations (CT): The same Natural Gas-fired Combustion Turbines (CT) used for Electric Generation in Emission Units 120, 121 and 122, operating in simple cycle independent of Heat Recovery System generators.
Maximum Rated Capacity: 235 MW (2,300 MMBtu/hr) each
Construction Date: 2015
Control Device: Units are equipped with dry low-nitrogen oxide burners

a. In addition to the requirements below, these units are required to comply with all Operating Limitations, Emission Limitations, Testing Requirements, Specific Monitoring Requirements, Specific Reporting Requirements, and Specific Control Equipment Operating Conditions as required for Emission Units 120, 121 and 123.

b. The facility shall utilize the alternate operating scenario (Simple Cycle Operations) no longer than a total of 6,000 hours per year for all three units including startup and shutdown periods. The permittee is not obligated to split the total hours of operation between the three combustion turbines equally [To preclude the applicability of 401 KAR 51:017, Sections 8 to 14].

Compliance Demonstration Method:
The facility shall monitor the number of hours the combustion turbines operate in simple cycle mode [401 KAR 52:020, Section 10].

c. For simple cycle units without heat recovery, use the calculated hourly average emission rates from 40 CFR 60.4350(f) to assess excess emissions on a 4-hour rolling average basis, as described in 40 CFR 60.4380(b)(1) [40 CFR 60.4350(g)]. See **6. Specific Reporting Requirements b.**

d. The permittee shall maintain weekly records of the continuous emissions monitoring system data; and hours the combustion turbines operate in simple cycle mode [401 KAR 52:020, Section 10].

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

Emission Unit 137 **Simple Cycle Combustion Turbine (5)**
Emission Unit 138 **Simple Cycle Combustion Turbine (6)**
Emission Unit 139 **Simple Cycle Combustion Turbine (7)**

Description:

Model:	General Electric Model 7F.05
Maximum Rated Capacity:	229 MW at 59°F (2,257 MMBtu/hr) each
Fuel:	Natural Gas
Construction Date:	October 2023
Control Device:	Dry Low NOx

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, *Cross-State Air Pollution Rule (CSAPR) NO_x annual trading program* (See Section L)
401 KAR 51:250, *Cross-State Air Pollution Rule (CSAPR) NO_x ozone season group 2 trading program* (See Section L)
401 KAR 51:260, *Cross-State Air Pollution Rule (CSAPR) SO_2 group 1 trading program* (See Section L)

401 KAR 52:060, *Acid Rain Permits*, incorporating 40 CFR Parts 72 to 78 (See Section J)

401 KAR 60:005, Section 2(2)(ffff), *40 CFR 60.4300 through 60.4420, Table 1 (***Subpart KKKK***), Standards of Performance for Stationary Combustion Turbines*

401 KAR 60:005, Section 2(2)(jjjj), *40 CFR 60.5508 through 60.5580, Tables 1 through 3 (***Subpart TTTT***), Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units*

40 CFR Part 75, *Continuous Emission Monitoring*

STATE-ORIGIN REQUIREMENTS:
401 KAR 63:020, *Potentially hazardous matter or toxic substances*

1. **Operating Limitations:**
   a. In order to preclude 401 KAR 51:017, *Prevention of significant deterioration of air quality,* Sections 8 to 14, the permittee shall limit electricity generation to 766,000 MWh(gross)/CT-year, including startups and subsequent shutdowns, based on a 12-month rolling total.

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

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

b. The permittee shall 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 60.4333(a)].

Compliance Demonstration Method:
See **5. Specific Recordkeeping Requirements c.**

2. Emission Limitations:

a. The exhaust from each combustion turbine shall not contain NO_x emissions that exceed:

i. 15 ppm at 15 percent O_2 or 54 ng/J of useful output (0.43 lb/MWh) during conditions when the turbines are operating at ≥75 percent of peak load and temperatures ≥0°F [40 CFR 60.4320(a), referencing Table 1, Item 4].

ii. 96 ppm at 15 percent O_2 or 590 ng/J of useful output (4.7 lb/MWh) during conditions when the turbines are operating at less than 75 percent of peak load or when the turbines are operating at temperature less than 0°F [40 CFR 60.4320(a), referencing Table 1, Item 13].

Compliance Demonstration Method:
Continuous compliance shall be demonstrated according to **3. Testing Requirements a.**, **4. Specific Monitoring Requirements c.**, **5. Specific Recordkeeping Requirements d.**, and **6. Specific Reporting Requirements b.**

b. The permittee shall not combust in the combustion turbine any fuel that contains total potential sulfur emissions that exceed 26 ng/J (0.060 lbs/MMBtu) [40 CFR 60.4330(a)(2)].

Compliance Demonstration Method:
Continuous compliance shall be demonstrated according to **4. Specific Monitoring Requirements e.** and **5. Specific Recordkeeping Requirements d.**

c. For each affected EGU, the permittee shall not discharge from the affected EGU any gases that contain CO_2 in excess of 50 kg per gigajoule (GJ) of heat input (120 lbs CO_2/MMBtu) based on either a 12-operating month or a 3-year rolling average basis. [40 CFR 60.5520(a) and 40 CFR 60 Subpart TTTT, Table 2, Item 2] The *Affected EGU* is each *"stationary combustion turbine that supplies its design efficiency or 50 percent, whichever is less, times its potential electric output or less as net-electric sales on either a 12-operating month or a 3-year rolling average basis and combusts more than 90% natural gas on a heat input basis on a 12-operating month rolling average basis."* [40 CFR 60 Subpart TTTT, Table 2, Item 2].

Compliance Demonstration Method:
Stationary combustion turbines that are only permitted to burn fuels with a consistent chemical composition (i.e., uniform fuels) that result in a consistent emission rate of 160 lb CO2/MMBtu or less are not subject to any monitoring or reporting requirements under 40 CFR 60, Subpart TTTT. These fuels include, but are not limited to, natural gas, methane,

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

butane, butylene, ethane, ethylene, propane, naphtha, propylene, jet fuel kerosene, No. 1 fuel oil, No. 2 fuel oil, and biodiesel. Stationary combustion turbines qualifying under 40 CFR 60.5520(d)(1) are only required to maintain purchase records for permitted fuels.

d. Persons responsible for a source from which hazardous matter or toxic substances may be emitted 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. 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. 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 toxics 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:

a. The permittee shall conduct subsequent NO_x performance tests on an annual basis (no more than 14 calendar months following the previous performance test). The performance test shall satisfy the requirements of 40 CFR 60.4400 [40 CFR 60.4400(a)].

b. The permittee shall conduct subsequent SO_2 performance tests on an annual basis (no more than 14 calendar months following the previous performance test) using one of the four methodologies listed in 40 CFR 60.4415(a)(1) through (4) [40 CFR 60.4415(a)].

c. 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 hours of operation of each combustion turbine and the amount of natural gas combusted (in MMscf) on a monthly basis [401 KAR 52:020, Section 10].

b. The permittee shall monitor the gross generation of each CT unit (in MWh/CT-year), as measured at the generator terminals, on a monthly basis [401 KAR 52:020, Section 10].

c. The permittee shall install, certify, maintain, and operate the following: [40 CFR 60.4340(b)(1) referencing 40 CFR 60.4335(b)]

i. A continuous emission monitoring system (CEMS) consisting of a NO_x monitor and a diluent gas (oxygen (O_2) or carbon dioxide (CO_2)) monitor, to determine the hourly NO_x emission rate in parts per million (ppm) or pounds per million British thermal units (lbs/MMBtu); and [40 CFR 60.4335(b)(1)]

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

ii. A fuel flow meter (or flow meters) to continuously measure the heat input to each combustion turbine; and [40 CFR 60.4335(b)(2)]

iii. A watt meter (or meters) to continuously measure the gross electrical output of each combustion turbine in megawatt-hours; and [40 CFR 60.4335(b)(3)]

d. The permittee shall meet the following CEMS equipment requirements: [40 CFR 60.4345]

i. Each NO_x diluent CEMS shall be installed and certified according to Performance Specification 2 (PS 2) in Appendix B to 40 CFR 60, except the 7-day calibration drift is based on unit operating days, not calendar days. Alternatively, a NO_x diluent CEMS that is installed and certified according to 40 CFR 75, Appendix A is acceptable. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lbs/MMBtu basis [40 CFR 60.4345(a)].

ii. As specified in 40 CFR 60.13(e)(2), during each full unit operating hour, both the NO_x monitor and the diluent monitor shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point shall be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NO_x emission rate for the hour [40 CFR 60.4345(b)].

iii. Each fuel flowmeter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, with state approval, fuel flowmeters that meet the installation, certification, and quality assurance (QA) requirements of 40 CFR 75, Appendix D are acceptable [40 CFR 60.4345(c)].

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

v. The permittee shall develop and keep on-site a QA plan for all of the continuous monitoring equipment described in 40 CFR 60.4345(a), (c), and (d). For the CEMS and fuel flow meters, the permittee may, with state approval, satisfy the requirements by implementing the QA program and plan described in 40 CFR 75, Appendix B, Section 1 [40 CFR 60.4345(e)].

e. For the purposes of identifying excess emissions: [40 CFR 60.4350]

i. All CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h) [40 CFR 60.4350(a)].

ii. For each unit operating hour in which a valid hourly average, as described in 40 CFR 60.4345(b), is obtained for both NO_x and diluent monitors, the data acquisition and handling system shall calculate and record the hourly NO_x emission rate in units of

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

ppm or lbs/MMBtu, using the appropriate equation from Method 19 in 40 CFR 60, Appendix A. 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 60.4350(b)].

iii. Correction of measured NO_x concentrations to 15 percent O_2 is not allowed [40 CFR 60.4350(c)].

iv. All required fuel flow rate, steam flow rate, temperature, pressure, and megawatt data shall be reduced to hourly averages [40 CFR 60.4350(e)].

v. For simple cycle combustion turbines without heat recovery, use the calculated hourly average emission rates from 40 CFR 60.4350(f) to assess excess emissions on a 4-hour rolling average basis, as described in 40 CFR 60.4380(b)(1) [40 CFR 60.4350(g)].

f. The permittee may elect not to monitor the total sulfur content of the fuel combusted in the turbine if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO_2/J (0.060 lbs SO_2/MMBtu) heat input. The permittee shall use one of the following sources of information to make the required demonstration: [40 CFR 60.4365]

i. 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 use is 20 grains of sulfur or less per 100 standard cubic feet and has potential sulfur emissions of less than 26 ng SO_2/J (0.060 lbs SO_2/MMBtu) heat input; or [40 CFR 60.4265(a)]

ii. Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO_2/J (0.060 lbs SO_2/MMBtu) heat input. At a minimum, the amount of fuel sampling data specified in 40 CFR 75, Section 2.3.1.4 or 2.3.2.4 of Appendix D is required [40 CFR 60.4365(b)].

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the hours of operation of each combustion turbine and the amount of natural gas combusted on a monthly basis [401 KAR 52:020, Section 10].

b. The permittee shall maintain records of the gross generation (MWh/CT-year), based on a 12-operating month rolling average [401 KAR 52:020, Section 10].

c. The permittee shall maintain records of start-ups, shutdowns, and malfunctions, including the duration of each occurrence [401 KAR 52:020, Section 10].

d. The permittee shall maintain a log of CEMS data on a weekly and 12-month rolling basis [401 KAR 52:020, Section 10].

e. The permittee shall maintain records that specify the sulfur content of the natural gas combusted [401 KAR 52:020, Section 10].

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

f. The permittee shall maintain purchase records for natural gas [40 CFR 60.5520(d)(1)].

6. Specific Reporting Requirements:

a. For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under 40 CFR 60, Subpart KKKK, the permittee shall submit reports of excess emissions and monitor downtime, as defined in 40 CFR 60.4380 for NOx and 40 CFR 60.4385 for SO_2, in accordance with 40 CFR 60.7(c). Excess emissions shall be reported for all periods of unit operation, including start-up, shutdown, and malfunction [40 CFR 60.4375(a)].

b. In regards to NOx, for turbines using continuous emission monitoring: [40 CFR 60.4380(b)]

i. An excess emission is any unit operating period in which the 4-hour rolling average NOx emission rate exceeds the applicable emission limit in 40 CFR 60.4320(a). A "4-hour rolling average NOx emission rate" is the arithmetic average of the average NOx emission rate in ppm or ng/J (lbs/MWh) measured by the continuous emission monitoring equipment for a given hour and the three unit operating hour average NOx emission rates immediately preceding that unit operating hour. Calculate the rolling average if a valid NOx emission rate is obtained for at least 3 of the 4 hours [40 CFR 60.4380(b)(1)].

ii. A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NOx concentration, CO_2 or O_2 concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if the permittee will use this information for compliance purposes [40 CFR 60.4380(b)(2)].

iii. For operating periods during which multiple emissions standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple emissions standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard [40 CFR 60.4380(b)(3)].

c. 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 60.4395].

7. Specific Control Equipment Operating Conditions:

a. The air pollution control equipment and monitoring equipment must be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction [40 CFR 60.4333(a) and 401 KAR 50:055, Section 2].

b. The Administrator will determine if the permittee is using consistent operation and maintenance procedures based on information available to the Administrator that may include, but is not limited to, fuel use records, monitoring results, review of operation and

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

maintenance procedures and records, review of reports required by 40 CFR 60 Subpart TTTT, and inspection of the EGU [40 CFR 60.5525(b)].

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

Emission Unit 107 **Natural Gas-Fired Auxiliary Boiler for the Steam Turbine**
Emission Units 108-110 **Dew-Point Natural Gas-Fired Gas Heaters for EUs 120-125**
Emission Units 141-143 **Dew-Point Natural Gas-Fired Gas Heaters for EUs 137-139**

Description:

Emission Unit(s)	Maximum Continuous Rating	Control Device	Construction Commencement
107	80 MMBtu/hr	Low NO_x Burner	2015
108-110	13.5 MMBtu/hr, each	Low NO_x Burner	2015
141-143	10 MMBtu/hr, each	Low NO_x Burner	2023

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

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

NON-APPLICABLE REGULATIONS:
401 KAR 63:002, Section 2(4)(iiii), 40 CFR 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*

401 KAR 63:002, Section 2(4)(jjjjj), 40 CFR 63.11193 through 63.11237, Tables 1 through 8 (**Subpart JJJJJJ**), *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*

1. **Operating Limitations:**
   During a startup period or a shutdown period, the permittee shall comply with the following work practice standards: [401 KAR 59:015, Section 7]

   a. The permittee shall comply with 401 KAR 50:055, Section 2(5) [401 KAR 59:015, Section 7(1)(a)];

   b. 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)].

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

   d. The permittee shall document actions, including duration of the startup period, during startup periods and shutdown periods by signed, contemporaneous logs or other relevant evidence [401 KAR 59:015, Section 7(1)(d)].

   e. Startups and shutdowns shall be conducted according to either: [401 KAR 59:015, Section 7(1)(e)]

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

i. The manufacturer's recommended procedures; or [401 KAR 59:015, Section 7(1)(e)1.]

ii. 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 owner or operator of the affected facility [401 KAR 59:015, Section 7(1)(e)2.].

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

2. Emission Limitations:
The emissions from each unit shall not exceed the following: [401 KAR 59:015, Sections 4 and 5]

Emission Unit(s)	PM Limit (lbs/MMBtu)	Opacity Limit*	SO_2 Limit (lbs/MMBtu)
107 108-110	0.10 [401 KAR 59:015, Section 4(1)(b)]	20 percent, except a maximum of 27 percent opacity shall be allowed for one six-minute period in any sixty consecutive minutes. [401 KAR 59:015, Section 4(2)(a)]	0.80 [401 KAR 59:015, Section 5(1)(b)1.]
141-143	0.30 [401 KAR 59:015, Section 4(1)(c)]	20 percent, except a maximum of 40 percent opacity shall be allowed for a maximum of six consecutive minutes in any sixty consecutive minutes during fire box cleaning or soot blowing. [401 KAR 59:015, Section 4(2)(b)]	0.99 [401 KAR 59:015, Section 5(1)(c)2.b.]

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)].

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

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

4. Specific Monitoring Requirements:
The permittee shall monitor the hours of operation and the amount of fuel combusted for each emission unit (in MMscf) on a monthly basis. [401 KAR 52:020, Section 10 and 40 CFR 60.48c(g)(2)]

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the hours of operation and amount of fuel combusted for each emission unit (in MMscf) on a monthly basis [401 KAR 52:020, Section 10 and 40 CFR 60.48c(g)(2)].

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

6. Specific Reporting Requirements:

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

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

Emission Unit 104 Diesel-Fired Emergency Engine

Description:
Cummins DGCA-5742774, used for two-way radio communication
Rated Capacity: 0.690 MMBtu/hr, 90 HP
Construction Date: 2006
Engine Manufacture Date: 10/24/2005

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

NON-APPLICABLE REGULATIONS:
401 KAR 60:005, Section 2(2)(dddd), 40 CFR 60.4200 through 60.4219, Tables 1 through 8 (**Subpart IIII**), *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*

1. **Operating Limitations:**
   a. The permittee shall meet the following requirements, except during periods of startup: [40 CFR 63.6603 referencing Table 2d.4.]

      i. Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first. The permittee has the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) or (j) in order to extend the specified oil change requirement; [40 CFR 63, Subpart ZZZZ, Table 2d.4.a.]

      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; and [40 CFR 63, Subpart ZZZZ, Table 2d.4.b.]

      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 [40 CFR 63, Subpart ZZZZ Table 2d.4.c.].

      iv. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in 40 CFR 63, Subpart ZZZZ, Table 2d, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. The permittee shall report any failure to perform the management practice on the schedule required and the federal, state, or local law under which the risk was deemed unacceptable [40 CFR 63, Subpart ZZZZ, Table 2d, Footnote 2].

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

b. The permittee shall be in compliance with the emission limitations, operating limitations, and other requirements established in 40 CFR 63, Subpart ZZZZ at all times [40 CFR 63.6605(a)].

c. At all times the permittee shall operate and maintain the engine, 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 shall 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 shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions [40 CFR 63.6625(e)(3) and 40 CFR 63.6640(a) Referencing Table 6.9.a.i. & ii.].

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

f. The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in 40 CFR 63, Subpart ZZZZ, Table 2d apply [40 CFR 63.6625(h)].

g. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in 40 CFR 63.6602. The oil analysis shall be performed at the same frequency specified for changing the oil in 40 CFR 63.6602. The analysis program shall at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine permittee is not required to change the oil. If any of the limits are exceeded, the engine permittee shall change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine permittee shall change the oil within 2 days or before commencing operation, whichever is later. The permittee shall maintain records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program shall be part of the maintenance plan for the engine [40 CFR 63.6625(i)].

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

h. The permittee shall operate the emergency engine 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, emergency demand response, 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 shall meet all requirements for non-emergency engines. [40 CFR 63.6640(f)]

i. There is no time limit on the use of emergency engines in emergency situations [40 CFR 63.6640(f)(1)].

ii. The permittee may operate the emergency stationary RICE for the purpose specified in 40 CFR 63.6640(f)(2)(i) for a maximum of 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). The emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of the emergency engine beyond 100 hours per calendar year [40 CFR 63.6640(f)(2) and (f)(2)(i)].

iii. The emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 63.6640(f)(2). Except as provided in 40 CFR 63.6640(f)(4)(i) and (ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity [40 CFR 63.6640(f)(4)].

iv. 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 63.6640(f)(4)(ii)]

1. The engine is dispatched by the local balancing authority or local transmission and distribution system operator. [40 CFR 63.6640(f)(4)(ii)(A)]

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

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 63.6640(f)(4)(ii)(B)]

3. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [40 CFR 63.6640(f)(4)(ii)(C)]

4. The power is provided only to the facility itself or to support the local transmission and distribution system. [40 CFR 63.6640(f)(4)(ii)(D)]

5. The permittee identifies and records the identity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. [40 CFR 63.6640(f)(4)(ii)(E)]

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 amount of fuel oil combusted (gallons) on a monthly basis [401 KAR 52:020, Section 10].

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

5. Specific Recordkeeping Requirements:
a. The permittee shall maintain records of the amount of fuel oil combusted (gallons) on a monthly basis [401 KAR 52:020, Section 10].

b. The permittee shall maintain records of the hours of operation of the generator on a monthly basis [401 KAR 52:020, Section 10].

c. The following records shall be maintained in a form suitable and readily available for expeditious review in hard copy or electronic form for 5 years following the date of each occurrence: [40 CFR 63.6655(a) and 40 CFR 63.6660]

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

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

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

iv. 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)].

v. Records required by **1. Operating Limitations d.** to show continuous compliance with each emission or operating limitation that applies [40 CFR 63.6655(d)].

vi. Records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the permittee's maintenance plan [40 CFR 63.6655(e)(2)].

vii. Records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for purposes specified In 40 CFR 63.6640(f)(2)(ii) or (iii) or 40 CFR 63.6640(f)(4)(ii), the permittee shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes [40 CFR 63.6655(f)(2)].

6. Specific Reporting Requirements:

a. The permittee shall report each instance in which they did not meet the operating limitations in 40 CFR 63, Subpart ZZZZ, Table 2d. These instances are deviations from the operating limitation. These deviations shall be reported according to the requirements in 40 CFR 63.6650 [40 CFR 63.6640(b)].

b. The permittee shall submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e) and (g) and (h) that apply by the dates specified [40 CFR 63.6645(a)(2)].

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

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

Emission Unit 115 Diesel-Fired Fire Pump (emergency engine)

Description:
Rated Capacity: 1.96 MMBtu/hr, 252 HP
Construction Date: 2015

APPLICABLE REGULATIONS:
401 KAR 60:005, Section 2(2)(dddd), 40 CFR 60.4200 through 60.4219, Tables 1 through 8 (**Subpart IIII**), *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*;

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

1. **Operating Limitations:**
   a. 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 the engine under 40 CFR Part 63 [40 CFR 63.6590(c)(1)].

   b. The permittee shall operate and maintain the engine that achieves the emission standards as required in 40 CFR 60.4205 over the entire life of the engine [40 CFR 60.4206].

   c. The permittee shall 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)].

   d. 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 engine 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 to the permittee [40 CFR 60.4211(a)(3)].

   e. The permittee shall operate the emergency stationary ICE according to the requirements in 40 CFR 60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 CFR 60 Subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in 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 shall meet all requirements for non-emergency engines [40 CFR 60.4211(f)].

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

i. There is no time limit on the use of emergency stationary ICE in emergency situations [40 CFR 60.4211(f)(1)].

ii. The permittee may operate the emergency stationary ICE for the purpose specified in 40 CFR 60.4211(f)(2)(i) for a maximum of 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 as allowed by this paragraph. The permittee may operate the emergency stationary ICE for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year [40 CFR 60.4211(f)(2) & (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) & (f)(3)(i)]:

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

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

3. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines [40 CFR 60.4211(f)(3)(i)(C)].

4. The power is provided only to the facility itself or to support the local transmission and distribution system [40 CFR 60.4211(f)(3)(i)(D)].

5. The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing

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

authority or local transmission and distribution system operator may keep these records on behalf of the permittee [40 CFR 60.4211(f)(3)(i)(E)].

2. Emission Limitations:

The permittee shall comply with the emission standards in Table 4 of 40 CFR 60, Subpart IIII, for all pollutants [40 CFR 60.4205(c)]:

Maximum Engine Power	Model Year(s)	NMHC + NO_X g/kw-hr (g/hp-hr)	CO g/kw-hr (g/hp-hr)	PM g/kw-hr (g/hp-hr)
130≤KW<225 (175≤HP<300)	2009 +	4.0 (3.0)	3.5 (2.6)	0.20 (0.15)

Compliance Demonstration Method:

a. The permittee shall demonstrate compliance by purchasing an engine certified to the emission standards in 40 CFR 60.4205(c) for the same model year and NFPA nameplate engine power. 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 engine and control device 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 according to 40 CFR 60.4211(g)(1) through (3), as appropriate. The permittee shall 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 the permittee changes emission-related settings in a way that is not permitted by the manufacturer [40 CFR 60.4211(g) & (g)(2)].

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

b. The permittee shall monitor the monthly fuel usage and sulfur content of the fuel based on vendor certification upon receipt of fuel [401 KAR 52:020, Section 10].

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

c. The permittee shall monitor the hours of operation of the engine in emergency and non-emergency service and the reason the engine was in operation during that time [40 CFR 60.4214(b) and 401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of monthly fuel usage and the sulfur content of the fuel based on vendor certification upon receipt of fuel [40 CFR 52:020, Section 10].

b. The permittee is not required to submit an initial notification. 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)].

c. If the engine that operates for the purposes specified in 40 CFR 60.4211(f)(3)(i), the permittee shall submit an annual report according to the following requirements [40 CFR 60.4214(d)]:

i. The report shall contain the following information [40 CFR 60.4214(d)(1)]:

1. Company name and address where the engine is located [40 CFR 60.4214(d)(1)(i)].

2. Date of the report and beginning and ending dates of the reporting period [40 CFR 60.4214(d)(1)(ii)].

3. Engine site rating and model year [40 CFR 60.4214(d)(1)(iii)].

4. Latitude and longitude in decimal degrees reported to the fifth decimal place [40 CFR 60.4214(d)(1)(iv)].

5. Hours spent for operation for the purposes specified in 40 CFR 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine [40 CFR 60.4214(d)(1)(v)].

ii. The first annual report shall cover the calendar year 2015 and shall be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year shall be submitted no later than March 31 of the following calendar year [40 CFR 60.4214(d)(2)].

iii. The annual report shall be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to 40 CFR 63, Subpart IIII is not available in CEDRI at the time that the report is due, the written report shall be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4 [40 CFR 60.4214(d)(3)].

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

6. Specific Reporting Requirements:

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

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

Emission Unit 128 Propane Emergency Engine (telecommunications)

Description:
Rated Capacity: 0.430 MMBtu/hr, 42 HP
Construction Date: August 2016

APPLICABLE REGULATIONS:
401 KAR 60:005, Section 2(2)(eee), 40 CFR 60.4230 through 60.4248, Tables 1 through 4 (**Subpart JJJJ**), *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*;

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

1. **Operating Limitations:**
   a. The permittee shall meet the requirements of 40 CFR Part 63 by meeting the requirements of 40 CFR 60, Subpart JJJJ. No further requirements apply for the engine under 40 CFR Part 63 [40 CFR 63.6590(c)].

   b. The permittee shall install a non-resettable hour meter [40 CFR 60.4237(c)].

   c. The permittee shall operate the emergency engine according to the requirements in 40 CFR 60.4243(d)(1) through (3). In order for the engine to be considered an emergency engine under 40 CFR 60, Subpart JJJJ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs 40 CFR 60.4243(d)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in 40 CFR 60.4243(d)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 60, Subpart JJJJ and shall meet all requirements for non-emergency engines [40 CFR 60.4243(d)].

      i. There is no time limit on the use of the emergency engine in emergency situations [40 CFR 60.4243(d)(1)].

      ii. The permittee may operate the emergency engine for the purpose specified in 40 CFR 60.4243(d)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 60.4243(d)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph. The permittee may operate the engine for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require

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

maintenance and testing of emergency ICE beyond 100 hours per calendar year [40 CFR 60.4243(d)(2) & (d)(2)(i)].

iii. The emergency engine may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 60.4243(d)(2). Except as provided in 40 CFR 60.4243(d)(3), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. 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 60.4243(d)(3) and (d)(3)(i)]:

1. The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [40 CFR 60.4243(d)(3)(A)]

2. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region [40 CFR 60.4243(d)(3)(B)].

3. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines [40 CFR 60.4243(d)(3)(C)].

4. The power is provided only to the facility itself or to support the local transmission and distribution system [40 CFR 60.4243(d)(3)(D)].

5. The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine permittee [40 CFR 60.4243(d)(3)(E)].

2. Emission Limitations:
The permittee shall comply to the Phase 1 emission standards in 40 CFR 1054, Appendix I, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR Part 1054 [40 CFR 60.4233(c) referencing 60.4231(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 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 monitor the amount of fuel burned (Mgal) on a monthly basis [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

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

b. The permittee shall maintain records of the amount of fuel burned (Mgal) on a monthly basis [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

a. If the emergency engine operates for the purposes specified in 40 CFR 60.4243(d)(3), the permittee shall submit an annual report according to the following requirements [40 CFR 60.4245(e)]:

i. The report shall contain the following information: [40 CFR 60.4245(e)(1)]

1. Company name and address where the engine is located [40 CFR 60.4245(e)(1)(i)].

2. Date of the report and beginning and ending dates of the reporting period [40 CFR 60.4245(e)(1)(ii)].

3. Engine site rating and model year [40 CFR 60.4245(e)(1)(iii)].

4. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place [40 CFR 60.4245(e)(1)(iv)].

5. Hours spent for operation for the purposes specified in 40 CFR 60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4243(d)(3)(i). The report shall also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine [40 CFR 60.4245(e)(1)(vii)].

ii. The first annual report shall cover the calendar year 2015 and shall be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year shall be submitted no later than March 31 of the following calendar year [40 CFR 60.4245(e)(2)].

iii. The annual report shall be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to 40 CFR 60, Subpart JJJJ is not available in CEDRI at the time that the report is due, the written report shall be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4 [40 CFR 60.4245(e)(3)].

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

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

Emission Units 147-156 Diesel-Fired Engines

Description:

Emission Unit	Description	Model	Rated Capacity	Construction Commenced	Engine Manufactured
147	Coal Yard Runoff Engine Pump #1	John Deere Model 4045TF285, Tier 3	99 HP (74 kW)	2021	2011
148	Coal Yard Runoff Engine Pump #2	John Deere Model 4045TF285, Tier 3	99 HP (74 kW)	2021	2011
151	Daniel Run Coal Fines Engine Pump #1	Deutz Model D914L04, Tier 3	78 HP (58 kW)	2021	Unknown
152	Daniel Run Coal Fines Engine Pump #2	John Deere Model 4045TF290, Tier 3	74 HP (55 kW)	2021	2012
155	GN24 Generator for Fuel Tank	Isuzu Model BZ-4LE2T, Tier 4	46 HP (34 kW)	2021	2018
156	Daniel Run Coal Fines Engine Pump #3	John Deere Model 4045TF290, Tier 3	74 HP (55 kW)	2025	2012

APPLICABLE REGULATIONS:

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

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

1. **Operating Limitations:**
   a. 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 the engine under 40 CFR Part 63 [40 CFR 63.6590(c)].

   b. The permittee shall operate and maintain the engine that achieves the emission standards as required in 40 CFR 60.4204(b) over the entire life of the engine [40 CFR 60.4206].

   c. The permittee shall 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)].

   d. The permittee shall 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 engine 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 to the permittee [40 CFR 60.4211(a)(3)].

e. The permittee shall comply with the General Provisions in 40 CFR 60.1 through 60.6, 60.9, 60.10, 60.12, 60.14 through 60.17, and 60.19, as applicable. [40 CFR 60.4218, referencing 40 CFR 60, Subpart IIII, Table 8]

2. Emission Limitations:

The permittee shall comply with the emission standards in 40 CFR 1039.101, 1039.102, 1039.104, 1039.105, 1039.107, 1039.115, and 40 CFR Part 1039, Appendix I, as applicable, for all pollutants, for the same model year and maximum engine power. [40 CFR 60.4204(b) referencing 40 CFR 60.4201(a)]

Compliance Demonstration Method:

a. The permittee shall demonstrate compliance by purchasing an engine certified to the emission standards in 40 CFR 60.4204(b) for the same model year and maximum engine power. 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 engine and control device 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 according to 40 CFR 60.4211(g)(1) through (3), as appropriate. The permittee shall keep a maintenance plan and records of conducted maintenance to demonstrate compliance 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, if the permittee does not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or changes the emission-related settings in a way that is not permitted by the manufacturer, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action [40 CFR 60.4211(g) & (g)(1)].

3. Testing Requirements:

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

b. If the permittee conducts performance tests pursuant to 40 CFR 60, Subpart IIII, they shall do so according to 40 CFR 60.4212(a) through (e) [40 CFR 60.4212].

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

4. Specific Monitoring Requirements:

a. The permittee shall monitor the amount of diesel combusted (in gallons) on a monthly basis [401 KAR 52:020, Section 10].

b. If the engine is equipped with a diesel particulate filter to comply with the emission standards in 40 CFR 60.4204, the diesel particulate filter shall be installed with a backpressure monitor that notifies the permittee when the high backpressure limit of the engine is approached [40 CFR 60.4209(b)].

5. Specific Recordkeeping Requirements:

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

b. If the engine is equipped with a diesel particulate filter, the permittee shall maintain records of any corrective action taken after the backpressure monitor has notified the permittee that the high backpressure limit of the engine is approached [40 CFR 60.4214(c)].

6. Specific Reporting Requirements:

a. If the engine is equipped with AECDs pursuant to the requirements of 40 CFR 60.4204(f), the permittee shall report the use of AECDs as required by 40 CFR 1039.665(e) [40 CFR 60.4214(e)].

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

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

Emission Unit 114 16 Cell Cooling Tower

Description:

Emission Unit	Description	Maximum Operating Rate	Control Devices	Construction Commenced
114	16-Cell Cooling Tower	17.34 MMgal/hr 289,000 gal/min	Drift Eliminators	2015

APPLICABLE REGULATIONS:
401 KAR 59:010, *New process operations*

1. **Operating Limitations:**
   N/A

2. **Emission Limitations:**
   a. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than 20 percent opacity [401 KAR 59:010, Section 3(1)(a)].

   b. For emissions from a control device or stack, the permittee shall not cause, suffer, allow or permit the emission into the open air of PM from any affected facility which is in excess of the limit determined according to the following table, where P is the process weight rate in tons per hour and E is the allowable PM emissions rate in pounds per hour: [401 KAR 59:010, Section 3(2)]

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

   Compliance Demonstration Method:
   The unit is assumed to be in compliance with the 401 KAR 59:010 opacity and PM emission standards when the associated control equipment is in operation [401 KAR 50:045, Section 4(3)(c)1.].

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

4. **Specific Monitoring Requirements:**
   The permittee shall monitor the throughput (in gallons) for each unit on a monthly basis [401 KAR 52:020, Section 10].

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall maintain records of the throughput (in gallons) for each unit 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].

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

6. Specific Reporting Requirements:
See **Section F - Monitoring, Recordkeeping, and Reporting Requirements** for general requirements.

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

Emission Unit 157 Combined Cycle Plant Gasoline Tank

Description:
300 gallon gasoline tank located at the Combined Cycle Plant with GDF (gasoline dispensing facility)
Capacity: 300 gallons gasoline
Dispensing Rate:250 gallons / month
Construction Date: May 2022

APPLICABLE REGULATIONS:
401 KAR 63:002, Section 2(4)(ddddd), 40 C.F.R. 63.11110 through 63.11132, Tables 1 through 3 (Subpart CCCCCC), *National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities*

STATE-ORIGIN REQUIREMENTS:
401 KAR 63:020, *Potentially hazardous matter or toxic substances*

1. **Operating Limitations:**
   a. The permittee shall, at all times, 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 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 63.11115(a)].

   Compliance Demonstration Method:
   Compliance shall be demonstrated according to **4. Specific Monitoring Requirements (b).**

   b. The permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following: [40 CFR 63.11111(b) & 40 CFR 63.11116(a)]

      i. Minimize gasoline spills; [40 CFR 63.11116(a)(1)]

      ii. Clean up spills as expeditiously as practicable; [40 CFR 63.11116(a)(2)]

      iii. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; [40 CFR 63.11116(a)(3)]

      iv. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators [40 CFR 63.11116(a)(4)].

   Compliance Demonstration Method:
   The permittee shall demonstrate compliance through the following:

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

i. Compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements (a)** and **(c).**

ii. Portable gasoline containers that meet the requirements of 40 CFR 59, Subpart F, are considered acceptable for compliance with 40 CFR 63.11116(a)(3) [40 CFR 63.11116(d)].

2. Emission Limitations:

Persons responsible for a source from which hazardous matter or toxic substances may be emitted 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. 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. 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 toxics 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:

a. The permittee shall document the gasoline throughput to demonstrate that the permittee's monthly throughput is less than the 10,000-gallon threshold level [40 CFR 63.11111(e)].

b. The permittee shall keep applicable records and submit reports as specified in 40 CFR 63.11125(d) and 40 CFR 63.11126(b) [40 CFR 63.11115(b)].

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the gasoline throughput to demonstrate that the permittee's monthly throughput is less than the 10,000-gallon threshold level [401 KAR 52:030, Section 10 & 40 CFR 63.11111(e)].

b. Recordkeeping to document monthly gasoline throughput shall begin upon startup of the affected source [40 CFR 63.11111(e)].

c. The permittee shall have records available within 24 hours of a request by the Administrator to document the gasoline throughput [40 CFR 63.11116(b)].

d. The permittee shall keep records as specified in 40 CFR 63.11125(d)(1) and (2) [40 CFR 63.1125(d)]:

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

i. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment [40 CFR 63.1125(d)(1)].

ii. Records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation [40 CFR 63.1125(d)(2)].

6. Specific Reporting Requirements:

a. The permittee shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred [40 CFR 63.11126(b)].

b. See **Section F - Monitoring, Recordkeeping, and Reporting Requirements** for general 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.	Diesel Fuel Oil Tank at Utility Building – 10,600 gallons	N/A
2.	Diesel Fuel Oil Tank at Combined Cycle Plant – 500 gallons	N/A
3.	Diesel Fuel Oil Tank at Combined Cycle Plant for Fire Pump – 500 gallons	N/A
4.	On-Road Diesel Tank at Facilities Maintenance Base – 1,000 gallons	N/A
5.	Diesel Fuel Oil Tank at Facilities Maintenance Base – 300 gallons	N/A
6.	Diesel Fuel Oil Tank at Cell Tower – 147 gallons	N/A
7.	Diesel Fuel Oil Tank at Project Trailers – 3,000 gallons	N/A
8.	Diesel Tank at Gypsum Stack Maintenance Building – 4,000 gallons	N/A
9.	Aqueous Ammonia Tank #1 – 20,000 gal	N/A
10.	Aqueous Ammonia Tank #2 – 20,000 gal	N/A

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. Particulate matter, sulfur dioxide, and opacity emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. Emission Units 53 and 54 are decommissioned and shall not be operated.

4. Emission Unit 03 (PAF03) is decommissioned and shall not be operated.

5. Emission Units 130-136 are decommissioned and shall not be operated.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

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

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place as defined in this permit, and time of sampling or measurements;
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five (5) years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

3. In accordance with the requirements of 401 KAR 52:020, Section 3(1)h, the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

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

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.

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

9. Pursuant to 401 KAR 52:020, Title V permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
   a. Identification of the term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period.
   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

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

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 Owensboro Regional Office 3032 Alvey Park Dr. W. Ste. 700 Owensboro, KY 42303	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:
      (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
      (2) The Cabinet or the United States Environmental Protection Agency (U. S. EPA) determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
      (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
      (4) New requirements become applicable to a source subject to the Acid Rain Program.

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

   d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:020, Section 3(1)(c)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

i. All emission limitations and standards contained in this permit shall be enforceable as a practical matter. All emission limitations and standards contained in this permit are enforceable by the U.S. EPA and citizens except for those specifically identified in this permit as state-origin requirements. [Section 1a-15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3) b].

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

m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.

n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3) d.].

o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3) a.].

SECTION G - GENERAL PROVISIONS (CONTINUED)

p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
(1) Applicable requirements that are included and specifically identified in this permit; and
(2) Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements

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

b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020, Section 8(2)].

3. Permit Revisions

a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).

b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

No construction authorized by this permit (V-26-011).

SECTION G - GENERAL PROVISIONS (CONTINUED)

5. Testing Requirements

   a. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least thirty (30) days prior to the test.

   b. Pursuant to 401 KAR 50:045, Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.

   c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

   a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

   b. The permittee shall comply with all applicable requirements and conditions of the Acid Rain Permit and the Phase II permit application (including the Phase II NOx compliance plan and averaging plan, if applicable) incorporated into the Title V permit issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

7. Emergency Provisions

   a. Pursuant to 401 KAR 52:020, Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
      (1) An emergency occurred and the permittee can identify the cause of the emergency;
      (2) The permitted facility was at the time being properly operated;

SECTION G - GENERAL PROVISIONS (CONTINUED)

(3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
(4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.1-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
(5) This requirement does not relieve the source of other local, state or federal notification requirements.

b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].

c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

8. Ozone Depleting Substances

a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
(1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
(2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
(3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
(4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.155.
(5) 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.
(6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

9. Risk Management Provisions

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

SECTION G - GENERAL PROVISIONS (CONTINUED)

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

N/A

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.

2. **Permit Requirements:**
   This Acid Rain Permit covers Acid Rain Units EU 120, 121 and 122 three new combined cycle operations, EU 123, 124 and 125 additional combustion turbines, and EU 137, 138 and 139 three simple cycle combustion turbines. The Acid Rain Permit Application and NO_x Compliance Plan received on August 18, 2014 are hereby incorporated into and made part of this permit and the permittee must comply with the standard requirements and special provisions set forth in the application [40 CFR 72.9(a)(2)].

3. **Acid Rain Program Emission and Operating Limitations:**
   The applicable Acid Rain emission limitations for the permittee are set in 40 CFR 73.10, Table 2, 40 CFR 76.5, and 40 CFR 76.11 and they are tabulated in the tables below:

PERMIT (Conditions)

Affected Unit: Paradise –Emission Units 120-125 & 137-139					
Year for SO_2 Allowances	2026	2027	2028	2029	2030
Tables 2, 3 or 4 of 40 CFR Part 73	0	0	0	0	0
NO_x Limits and Requirements					
These units currently do not have applicable NO_x limits set by 40 CFR, Part 76.					

4. **Compliance Plan:**
   a) The permittee shall operate in compliance with the requirements contained in the Acid Rain application and incorporated into this permit [40 CFR 72.9].

   b) The Division approves the NO_x Standard Emissions Limitation 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 rate 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 unit had it 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 emission rate and associated heat input limit in Subsection 3.

SECTION J - ACID RAIN (CONTINUED)

iii.) If the designated representative cannot make the demonstration in Subsection 4(b)(1), according to 40 CFR 76.11(d)(1)(ii), for the plan year and if a unit fails to meet the annual average rate or has a heat input greater than the applicable value listed in Subsection 3, then excess emissions of NO_x have occurred during the year for that unit.

iv.) As an alternative means of compliance demonstration, this emission unit shall not cause the system weighted average to exceed the applicable emission rate in accordance with 40 CFR 76.11(d)(B)(ii).

Compliance Agreement on Emission Reductions

a) For system-wide NO_x emission reduction, the permittee shall adhere to paragraph 67 and 68 of 311-cv-00170.

b) For system-wide SO_2 emission reduction, the permittee shall adhere to paragraph 82 and 83 of 311-cv-00170.

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 (CSAPR)

The CSAPR subject units, and the unit-specific monitoring provisions at this source, are identified in the following table. 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

Unit ID: 120-125, Three Combustion Turbines (Combined Cycle (3-to-1) and Simple Cycle) Unit ID: 137-139, Three Simple Cycle Combustion Turbines					
Parameter	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR 75, subpart B (for SO_2 monitoring) and 40 CFR 75, subpart H (for NO_x monitoring)	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR 75, Appendix D	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR 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 75, subpart E
SO_2		X			
NO_x	X				
Heat input		X			

1. The above description of the monitoring used by a unit does not change, create an exemption from, or otherwise affect the monitoring, recordkeeping, and reporting requirements applicable to the unit under 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(30) (CSAPR NO_x Annual Trading Program), 401 KAR 51:250 Section 3(25) through 401 KAR 51:250, Section 3(30) (CSAPR NO_x Ozone Season Group 2 Trading Program), and 401 KAR 51:260 Section 3(25) through 401 KAR 51:260, Section 3(30) (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: http://www.epa.gov/airmarkets.

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 75, Subpart E and 40 CFR 75.66 and 401 KAR 51:240, Section 3(30) (CSAPR NO_x Annual Trading Program), 401 KAR 51:250, Section 3(30) (CSAPR NO_x Ozone Season Group 2 Trading Program), and/or 401 KAR 51:260, Section 3(30) (CSAPR SO_2 Group 1 Trading Program). The Administrator's response approving or disapproving any

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

petition for an alternative monitoring system is available on the EPA's website at: at http://www.epa.gov/airmarkets/part-75-petition-responses.

4. Owners and operators that want to use an alternative to any monitoring, recordkeeping, or reporting requirements under 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(29) (CSAPR NOx Annual Trading Program), 401 KAR 51:250, Section 3(25) through 401 KAR 51:250, Section 3(29) (CSAPR NOx Ozone Season Group 2 Trading Program), and/or 401 KAR 51:260, Section 3(25) through 401 KAR 51:260, Section 3(29) (CSAPR SO2 Group 1 Trading Program) must submit to the Administrator a petition requesting approval of the alternative in accordance with 401 KAR 51:240, Section 3(30) (CSAPR NOx Annual Trading Program), 401 KAR 51:250, Section 3(30) (CSAPR SO2 Group 1 Trading Program), and 401 KAR 51:260, Section 3(30) (CSAPR NOx Ozone Season Group 2 Trading Program). The Administrator's response approving or disapproving any petition for an alternative to a monitoring, recordkeeping, or reporting requirement is available on the EPA's website at https://www.epa.gov/airmarkets/data-resources.

CSAPR NO_x Annual Trading Program requirements (401 KAR 51:240, Section 3(4))

1. **Designated representative requirements.**
   The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 401 KAR 51:240, Section 3(10) through 401 KAR 51:240, Section 3(15).

2. **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 401 KAR 51:240, Section 3(25) (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 401 KAR 51:240, Section 3(26) (initial monitoring system certification and recertification procedures), 401 KAR 51:240, Section 3(27) (monitoring system out-of-control periods), 401 KAR 51:240, Section 3(28) (notifications concerning monitoring), 401 KAR 51:240, Section 3(29) (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 401 KAR 51:240, Section 3(30) (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

   b) The emissions data determined in accordance with 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(30) shall be used to calculate allocations of CSAPR NO_x Annual allowances under 401 KAR 51:240, Section 3(8) (40 CFR 97.411(a)(2) and (b)) and 401 KAR 51:240, Section 3(9) and to determine compliance with the CSAPR NO_x Annual emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(30) and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

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

3. NO_x emissions requirements.

a) CSAPR NO_x Annual emissions limitation.

i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall hold, in the source's compliance account, CSAPR NO_x Annual allowances available for deduction for such control period under 401 KAR 51:240, Section 3(20) (40 CFR 97.424(a)) in an amount not less than the tons of total NO_x emissions for such control period from all CSAPR NO_x Annual units at the source.

ii) If total NO_x emissions during a control period in a given year from the CSAPR NO_x Annual units at a CSAPR NO_x Annual source are in excess of the CSAPR NO_x Annual emissions limitation set forth in paragraph (c)(1)(i) above, then:

A) The owners and operators of the source and each CSAPR NO_x Annual unit at the source shall hold the CSAPR NO_x Annual allowances required for deduction under 401 KAR 51:240, Section 3(20) (40 CFR 97.424(d)); and

B) The owners and operators of the source and each CSAPR NO_x Annual unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 401 KAR 51:240 (40 CFR 97, Subpart AAAAA) and the Clean Air Act.

b) CSAPR NO_x Annual assurance provisions.

i) If total NO_x emissions during a control period in a given year from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO_x Annual allowances available for deduction for such control period under 401 KAR 51:240, Section 3(21) (40 CFR 97.425(a)) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 401 KAR 51:240, Section 3(21) (40 CFR 97.425(b)), of multiplying— (A) The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and (B) The amount by which total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state for such control period exceed the state assurance level.

ii) The owners and operators shall hold the CSAPR NO_x Annual allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business

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

day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.

iii) Total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the State during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the state NO_x Annual trading budget under 401 KAR 51:240, Section 3(7)(a)(1) and the state's variability limit under 401 KAR 51:240, Section 3(7)(a)(3).

iv) It shall not be a violation of 401 KAR 51:240, 40 CFR 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.

v) To the extent the owners and operators fail to hold CSAPR NO_x Annual allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above;

A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

B) Each CSAPR NO_x Annual allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 401 KAR 51:240, 40 CFR 97, Subpart AAAAA, and the Clean Air Act.

c) Compliance periods.

i) A CSAPR NO_x Annual unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under 401 KAR 51:240, Section 3(25) (40 CFR 97.430(b)) and for each control period thereafter.

ii) A CSAPR NO_x Annual unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 401 KAR 51:240, Section 3(25) (40 CFR 97.430(b)) and for each control period thereafter.

d) Vintage of allowances held for compliance.

i) A CSAPR NO_x Annual allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year shall be a CSAPR NO_x Annual allowance that was allocated for such control period or a control period in a prior year.

ii) A CSAPR NO_x Annual allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year shall be a CSAPR NO_x Annual allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.

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

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 401 KAR 51:240.

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:
   i) Such authorization shall only be used in accordance with the CSAPR NO_x Annual Trading Program; and
   ii) Notwithstanding any other provision of 40 CFR 97, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

g) Property right. A CSAPR NO_x Annual allowance does not constitute a property right.

4. 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 401 KAR 51:240.

b) This permit incorporates the CSAPR emissions monitoring, recordkeeping, and reporting requirements pursuant to 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(30), and the requirements for a continuous emission monitoring system (pursuant to 40 CFR 75, Subparts B and H), an excepted monitoring system (pursuant to 40 CFR 75, Appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR 75, Subpart E). Therefore, the Description of CSAPR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this Title V permit using minor permit modification procedures in accordance with 401 KAR 51:240, Section 3(4) (40 CFR 97.406(d)(2)) and 70.7(e)(2)(i)(B).

5. 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 maintain on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
   i) The certificate of representation under 401 KAR 51:240, Section 3(13) for the designated representative for the source and each CSAPR NO_x Annual unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 401 KAR 51:240, Section 3(13) changing the designated representative.
   ii) All emissions monitoring information, in accordance with 401 KAR 51:240.

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

iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO_x Annual Trading Program.

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 401 KAR 51:240, Section 3(15). This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a Title V operating permit program in 40 CFR 70.

6. 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.

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.

7. Effect on other authorities.

No provision of the CSAPR NO_x Annual Trading Program or exemption under 401 KAR 51:240, Section 3(3) shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO_x Annual source or CSAPR NO_x Annual unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

CSAPR NO_x Ozone Season Group 2 Group 2 Trading Program Requirements (401 KAR 51:250, Section 3(4))

1. Designated representative requirements.

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 401 KAR 51:250, Section 3(10) through 401 KAR 51:250, Section 3(15).

2. 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 401 KAR 51:250, Section 3(25) (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 401 KAR 51:250, Section 3(26) (initial monitoring system certification and recertification procedures), 401 KAR 51:250, Section 3(27) (monitoring system out-of-control periods), 401 KAR 51:250, Section 3(28) (notifications concerning monitoring), 401 KAR 51:250, Section 3(29) (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 401 KAR 51:250, Section 3(30) (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

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

b) The emissions data determined in accordance with 401 KAR 51:250, Section 3(25) through 401 KAR 51:250, Section 3(30) shall be used to calculate allocations of CSAPR NO_x Ozone Season Group 2 allowances under 401 KAR 51:250, Section 3(8) (40 CFR 97.811(a)(2) and (b)) and 401 KAR 51:250, Section 3(9) (40 CFR 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 401 KAR 51:250, Section 3(25) through 401 KAR 51:250, Section 3(30) and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

3. NO_x emissions requirements.

a) CSAPR NO_x Ozone Season Group 2 emissions limitation.

i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO_x 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 401 KAR 51:250, Section 3(20) (40 CFR 97.824(a)) in an amount not less than the tons of total NO_x emissions for such control period from all CSAPR NO_x Ozone Season Group 2 units at the source.

ii) If total NO_x emissions during a control period in a given year from the CSAPR NO_x Ozone Season Group 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 401 KAR 51:250, Section 3(20) (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 401 KAR 51:250, 40 CFR 97, Subpart EEEEE, and the Clean Air Act.

b) CSAPR NO_x Ozone Season Group 2 assurance provisions.

i) 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 401 KAR 51:250, Section 3(21) (40

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

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 401 KAR 51:250, Section 3(21) (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 CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x Ozone Season Group 2 sources in the state for such control period exceed the state assurance level.

ii) The owners and operators shall hold the CSAPR NO_x Ozone Season Group 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 such control period.

iii) Total NO_x emissions from all CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x Ozone Season Group 2 sources in the state during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the State NO_x Ozone Season Group 2 trading budget under 401 KAR 51:250, Section 3(7)(a)(1) (40 CFR 97.810(a)) and the state's variability limit under 401 KAR 51:250, Section 3(7)(a)(3) (40 CFR 97.810(b)).

iv) It shall not be a violation of 401 KAR 51:250, 40 CFR 97, Subpart EEEEE, or of the Clean Air Act if total NO_x emissions from all CSAPR NO_x Ozone Season Group 2 units at 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 CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x Ozone Season Group 2 sources in the state during a control period exceeds the common designated representative's assurance level.

v) To the extent the owners and operators fail to hold CSAPR NO_x Ozone Season Group 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 401 KAR 51:250, 40 CFR 97, Subpart EEEEE and the Clean Air Act.

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

c) Compliance periods.
   i) A CSAPR NO_x Ozone Season Group 2 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of May 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 401 KAR 51:250, Section 3(25) (40 CFR 97.830(b)) and for each control period thereafter.
   ii) A CSAPR NO_x Ozone Season Group 2 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 401 KAR 51:250, Section 3(25) (40 CFR 97.830(b)) and for each control period thereafter.

d) Vintage of allowances held for compliance.
   i) 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 shall be a CSAPR NO_x Ozone Season Group 2 allowance that was allocated for such control period or a control period in a prior year.
   ii) A CSAPR NO_x Ozone Season Group 2 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year shall be a CSAPR NO_x Ozone Season Group 2 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 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 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:
   i) Such authorization shall only be used in accordance with the CSAPR NO_x Ozone Season Group 2 Trading Program; and
   ii) Notwithstanding any other provision of 401 KAR 51:250, 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.

4. 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 Ozone Season Group 2 allowances in accordance with 401 KAR 51:250.

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

b) This permit incorporates the CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 401 KAR 51:250, Section 3(25) through 401 KAR 51:250, 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 with401 KAR 51:250, Section 3(4) (40 CFR 97.806(d)(2)) and 70.7(e)(2)(i)(B).

5. 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 maintain on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

i) The certificate of representation under 401 KAR 51:250, Section 3(13) for the designated representative for the source and each CSAPR NO_x Ozone Season Group 2 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 401 KAR 51:250, Section 3(13) changing the designated representative.

ii) All emissions monitoring information, in accordance with 401 KAR 51:250.

iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO_x Ozone Season Group 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 401 KAR 51:250, 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 CFRs 70.

6. 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.

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

7. Effect on other authorities.

No provision of the CSAPR NO_x Ozone Season Group 2 Trading Program or exemption under 401 KAR 51:250, Section 3(3) 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.

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

CSAPR SO_2 Group 1 Trading Program requirements (401 KAR 51:260, Section 3(4))

1. **Designated representative requirements.**
   The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 401 KAR 51:260, Section 3(10) through 401 KAR 51:260, Section 3(15).

2. **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 401 KAR 51:260, Section 3(25) (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 401 KAR 51:260, Section 3(26) (initial monitoring system certification and recertification procedures), 401 KAR 51:260, Section 3(27) (monitoring system out-of-control periods), 401 KAR 51:260, Section 3(28) (notifications concerning monitoring), 401 KAR 51:260, Section 3(29) (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 401 KAR 51:260, Section 3(30) (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

   b) The emissions data determined in accordance with 401 KAR 51:260, Section 3(25) through 401 KAR 51:260, Section 3(30) shall be used to calculate allocations of CSAPR SO_2 Group 1 allowances under 401 KAR 51:260, Section 3(8) (40 CFR 97.611(a)(2)) and (b)) and 401 KAR 51:260, Section 3(9) and to determine compliance with the CSAPR 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 401 KAR 51:260, Section 3(25) through 401 KAR 51:260, Section 3(30) and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

3. **SO_2 emissions requirements.**
   a) CSAPR SO_2 Group 1 emissions limitation.
      i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR 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 401 KAR 51:260, Section 3(20) (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.
      ii) 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 401 KAR 51:260, Section 3(20) (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

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

excess emissions and each day of such control period shall constitute a separate violation 401 KAR 51:260, 40 CFR 97, Subpart CCCCC, and the Clean Air Act.

b) CSAPR SO_2 Group 1 assurance provisions.
   i) 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 401 KAR 51:260, Section 3(21) (40 CFR 97.625(a)) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 401 KAR 51:260, Section 3(21) (40 CFR 97.625(b)), of multiplying—
      A) The quotient of the amount by which the common designated representative's share of such SO_2 emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such SO_2 emissions exceeds the respective common designated representative's assurance level; and
      B) The amount by which total SO_2 emissions from all 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.
   ii) 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.
   iii) 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).
   iv) It shall not be a violation of 401 KAR 51:260, 40 CFR 97, Subpart CCCCC, 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.
   v) 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

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

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, 40 CFR 97, Subpart CCCCC and the Clean Air Act.

c) Compliance periods.
   i) 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.
   ii) 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.
   i) 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.
   ii) 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:
   i) Such authorization shall only be used in accordance with the CSAPR SO_2 Group 1 Trading Program; and
   ii) Notwithstanding any other provision of 401 KAR 51:260, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

g) Property right. CSAPR SO_2 Group 1 allowance does not constitute a property right.

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

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).

5. 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 the end of 5 years, in writing by the Administrator.

i) The certificate of representation under 401 KAR 51:260, Section 3(13) for the designated representative for the source and each CSAPR SO_2 Group 1 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.616 changing the designated representative.

ii) All emissions monitoring information, in accordance with 401 KAR 51:260.

iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR 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.

6. 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.

7. 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

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

unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.