

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

Final

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

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

Permittee Name: East Kentucky Power Cooperative (EKPC), Inc.
Mailing Address: 4775 Lexington Road, Winchester, KY 40392

Source Name: EKPC Bluegrass Generating Station
Mailing Address: 3095 Commerce Parkway
LaGrange, KY 40031

Source Location: Near exit 18 on I-71

Permit: V-21-048
Agency Interest: 39541
Activity: APE20210001
Review Type: Title V, Operating
Source ID: 21-185-00036

Regional Office: Frankfort Regional Office
300 Sower Boulevard, 1st Floor
Frankfort, KY 40601
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County: Oldham

Application
Complete Date: January 13, 2022
Issuance Date: January 3, 2023
Expiration Date: January 3, 2028

Michael Kennedy

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

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Permit Number	Permit Type	Activity#	Complete Date	Issuance Date	Summary of Action
V-21-048	Title V	APE20210001	1/13/2022	1/3/2023	Title V Renewal

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**Emissions Unit 01, 02, and 03****Three (3) Natural Gas-Fired, Simple Cycle Combustion Turbines****Description:**

Model:	Siemens-Westinghouse 501FD
Construction Commenced:	October, 2000 – Emissions Units 01 and 02 June, 2001– Emissions Unit 03
Maximum Continuous Rating:	2,076 MMBtu/hr rated heat input capacity (each), 208 MW rated capacity output (each)
Primary Fuel:	Natural gas
Secondary Fuel:	No. 2 Ultra Low Sulfur Diesel Fuel Oil
Control Equipment:	Dry-Low NO _x Burners & Water Injection on all three units High Temperature Selective Catalytic Reduction (SCR) on Units 01 & 02

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*
401 KAR 51:220, *CAIR NO_x ozone season Trading Program*
401 KAR 51:230, *CAIR SO₂ trading program*
401 KAR 51:240, *Cross-State Air Pollution Rule (CSAPR) NO_x annual trading program.*
401 KAR 51: 260, *Cross-State Air Pollution Rule (CSAPR) SO₂ group 1 trading program*
401 KAR 52:060, *Acid rain permits*
401 KAR 60:005, Section 2(2)(pp), 40 C.F.R. 60.330 to 60.335 (**Subpart GG**), *Standards of Performance for Stationary Gas Turbines*
401 KAR 63:020, *Potentially hazardous matter or toxic substances*
40 CFR 75, *Continuous Emissions Monitoring (CEM)*
40 CFR 97, Subpart GGGGG, *CSAPR NO_x Ozone Season Group 3 Trading Program*

PRECLUDED REGULATIONS:

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

NON APPLICABLE REGULATIONS:

401 KAR 60:005, Section 2(2)(ffff), 40 C.F.R. 60.4300 to 60.4420, Table 1 (**Subpart KKKK**), *Standards of Performance for Stationary Gas Turbines*
401 KAR 60:005, Section 2(2)(jjjj), 40 C.F.R. 60.5508 to 60.5580, Tables 1 to 3 (**Subpart TTTT**), *Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units*
401 KAR 63:002, Section 2(4)(dddd), 40 C.F.R. 63.6080 to 63.6175, Tables 1 to 7 (**Subpart YYYY**), *National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines*

STATE ORIGIN REQUIREMENTS:

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**1. Operating Limitations:**

- a. Combined operating hours for all turbines shall not exceed 4,757 hours during any consecutive twelve (12) month period [Self-imposed to preclude 401 KAR 51:017].
- b. Firing on fuel oil is restricted to emergency circumstances such as natural gas supply curtailment or breakdown of delivery system, that make it impossible to fire natural gas in the gas turbine [40 CFR 60.331]. Firing on fuel oil is also permissible when required for maintenance and readiness testing.
- c. Based upon the emission rates of toxics and hazardous air pollutants 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.
- d. See Section D for source-wide emission limitations.

2. Emission Limitations:

- a. The concentration of nitrogen oxides (NO_x) in the exhaust gas from each unit shall not exceed 111 part per million (ppm) by volume at 15 percent oxygen, on a dry basis, and based on a four-hour rolling average [40 CFR 60.332(a)(1)].

Compliance Demonstration:

The permittee shall demonstrate compliance by averaging the ppm level of NO_x measured using the NO_x CEM and comparing the result to the NO_x emission standard [40 CFR 60.334(b)]. The NO_x emission rate and mass calculations will be based on prorated natural gas and fuel oil fuel factors from 40 CFR Part 75, Appendix F.

- b. The permittee shall either not discharge any gases into the atmosphere which contain sulfur dioxide (SO₂) in excess of 0.015 percent by volume at 15 percent oxygen, on a dry basis, or not burn any fuel which contains sulfur in excess of 0.8 percent by weight [40 CFR 60.333(a) and (b)].

Compliance Demonstration:

See 4. Specific Monitoring Requirement d. and f.

- c. Carbon monoxide (CO) emissions shall not exceed 50 ppm on a three-hour rolling average basis from each unit except during start-up, shutdown, and malfunction events. The start-up and shutdown emission calculation shall be based on emission rates determined from representative data derived from actual emissions testing. The CO emissions from the source during start-up and shutdown shall be included in the total emission cap of 245 tons per year as specified in Section D of this permit [401 KAR 52:020, Section 10 and Self-imposed to preclude 401 KAR 51:017].

Compliance Demonstration:

The permittee shall demonstrate compliance by averaging the ppm level of CO measured using a CEM and comparing the result to the CO emission standard. The CO emission rate and mass calculations will be based on prorated natural gas and fuel oil fuel factors from 40 CFR Part 75, Appendix F.

- d. See Section D for source-wide emission limitations.

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

- a. In conducting performance tests for nitrogen oxides as required by 40 CFR 60.8, the permittee shall use either EPA Method 20; ASTM D6522-00 incorporated by reference 40 CFR 60.17; EPA Method 7E and either EPA Method 3 or 3A in Appendix A of Part 60 or other acceptable reference methods or procedures as specified in 40 CFR 60.335 so as to determine compliance with the standard [40 CFR 60.335(a)].
- b. If the permittee elects to install and certify a NOX CEMS under 40 CFR 60.334(e), then the initial performance test required under 40 CFR 60.8 may be done in the following alternative manner using the test data both to demonstrate compliance with the applicable NOX emission limit under 40 CFR 60.332 and to provide the required reference method data for the RATA of the CEMS described under 40 CFR 60.334(b) [40 CFR 60.335(b)(7)(ii)].
- c. Performance testing is not required for any emergency fuel as defined in 40 CFR 60.331 [40 CFR 60.335(b)(2)].
- d. Testing shall be conducted at such times as may be required by the Cabinet [401 KAR 50:045, Section 4].

4. Specific Monitoring Requirements:

- a. The permittee shall install, calibrate, maintain, and operate a NO_x CEM. The NO_x CEM shall be used to demonstrate continuous compliance with the NO_x emission standard. Excluding the start-up and shutdown periods, if any four-hour rolling average exceeds the NO_x emission limitation, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and complete necessary control device/process/CEM repairs or take corrective action as soon as practicable [401 KAR 60:005, 40 CFR 60.334(b), and 40 CFR 75].
- b. The nitrogen oxides CEM shall be used in lieu of the water to fuel monitoring system for reporting excess emissions in accordance with 40 CFR 60.334(b)(3)(iii). The calibration of the water to fuel monitoring device required in 40 CFR 60.334(a) will be replaced by the 40 CFR 75 certification tests of the nitrogen oxides CEMS monitor.
- c. The permittee shall install, calibrate, maintain, and operate a CEM system for measuring oxygen levels [401 KAR 52:020, Section 10].
- d. The permittee shall determine sulfur dioxide emissions by using the heat input calculated using a certified fuel flow monitoring system in conjunction with the default SO₂ emission rate for pipeline natural gas from Section 2.3.1 of Appendix D and equation F-20 in Appendix F [40 CFR 75.11(d)(2)].
- e. The permittee shall comply with all the monitoring requirements of 40 CFR 75.
- f. The permittee shall monitor the sulfur content of the fuel being fired in the turbine. The frequency of determination of these values shall be as specified in the following approved custom fuel monitoring schedule [40 CFR 60.334(h)]:
 - i. The sulfur content of the gaseous fuel shall be determined twice per year. The monitoring shall be conducted during the first and third quarters of each calendar year [401 KAR 52:020, Section 10].

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

- ii. The permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine if the fuel meets the definition of natural gas in 40 CFR 60.331(u) [40 CFR 60.334(h)(3)].
- iii. If there is a change in fuel supply, the permittee shall notify the Division of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined [401 KAR 52:020, Section 10].
- iv. When fuel oil is used, the permittee shall sample the fuel oil sulfur content daily in accordance with 40 CFR 75, Appendix D [40 CFR 60.334(i)(1)].
- g. The permittee shall monitor for carbon monoxide, using a CO CEM [401 KAR 52:020, Section 10].
- h. The permittee shall install, calibrate, operate, test, and monitor all continuous monitoring systems and monitoring devices [40 CFR 60.13 or 40 CFR 75]. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device(s).
- i. The permittee shall conduct a performance evaluation of the continuous monitoring system during any performance test required under 40 CFR 60.8 or within 30 days thereafter, in accordance with the applicable performance specification in 40 CFR 60 Appendix B, for NO_x performance evaluations of CEM systems shall be conducted at other times as required [40 CFR 60.13(c)].
- j. For affected facilities that are infrequently operated, an alternative monitoring procedure for CO monitors zero and span calibration checks has been approved by the Director. The permittee shall check the zero and span drift of the CO monitors at least once daily when operating, in accordance with and consistent with NO_x and O₂ monitor requirements under 40 CFR 75. The following provisions shall be adhered to while executing this alternative procedure [401 KAR 59:005 Section 4(9)(b)]:
 - i. Conditions for monitoring emissions data out-of-control periods as defined in 40 CFR 75.24 for CEMS shall apply to the CO monitors including but not limited to failed zero/span checks, and RATA tests. This out-of-control data shall not be used to calculate hourly emissions for the time period considered out-of-control until that time when the appropriate corrective measures specified in 40 CFR 75.24 are successfully completed and the data is back in-control.
 - ii. Data substitution rules shall apply to the CO emissions data for out-of-control periods, including monitoring downtime, and those substituted emission data values shall count toward the facility source-wide annual federally enforceable CO emissions limit. For the purpose of complying with this requirement, the data substitution rules for NO_x monitors listed in 40 CFR 75.33 shall be applied to the CO monitors.

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

- k. Except during system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet the minimum frequency of operation requirements by completing one cycle of operation (sampling, analyzing, and data recording) for each successive fifteen (15) minute period [40 CFR 60.13(e)].
- l. All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the emissions units are obtained. Additional procedures for location of continuous monitoring systems, as contained in the applicable Performance Specifications of 40 CFR 60 Appendix B, shall be used [40 CFR 60.13(f)].
- m. The permittee shall reduce all data to one-hour averages for the continuous monitoring systems. The one-hour averages shall be computed from four or more data points equally spaced over each one-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non-reduced form (e.g., ppm pollutant and percent oxygen). All excess emissions shall be converted into units of the applicable standard using the applicable conversion procedures specified in 40 CFR 60, Subpart GG. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used to specify the applicable emission standard [40 CFR 60.13(h)].
- n. The permittee shall monitor operating parameters for SCR and low NO_x burner [401 KAR 52:020, Section 10].
- o. The permittee shall monitor the quantity of fuel oil (in 1000 gallons), and natural gas (in MMscf), fired in each turbine, for any consecutive 12 month rolling total [401 KAR 52:020, Section 10].
- p. The permittee on a daily basis shall monitor the hours of operation for each turbine and fuel used. If fuel oil is used the reason for the fuel oil use shall be monitored [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- a. The permittee of the gas turbine shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by 401 KAR 59:005 recorded in a permanent form suitable for inspection [401 KAR 59:005, Section 3].
- b. The permittee shall maintain records, including those documenting the results of each compliance test and all other records and reports required by this permit, and shall be maintained for five (5) years [401 KAR 52:020, Section 3].

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

- c. The permittee shall maintain the records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of the emissions units; any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative [401 KAR 52:020, Section 10].
- d. The permittee shall maintain a log of all sulfur content measurements. Records of sample analysis and fuel supply data pertinent to the custom fuel sulfur monitoring schedule shall be retained for a period of five (5) years, and shall be available for inspection by personnel of federal, state, and local air pollution control agencies [401 KAR 52:020, Section 10].
- e. The permittee shall maintain records of operating parameters of the control equipment [401 KAR 59:005, Section 3].
- f. The permittee shall maintain a log of the rolling total of the quantity of fuel oil (in 1000 gallons), and natural gas (in MMscf), fired in each turbine, for any consecutive 12 month rolling total [401 KAR 52:020, Section 10].
- g. The permittee on a daily basis shall record the hours of operation for each turbine and fuel used. If fuel oil is used the reason for the fuel oil use shall be recorded [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

- a. The minimum data reporting requirements, which follow, shall be maintained and furnished in the format specified by the Cabinet. The permittee shall submit a written report of excess emissions (as defined in applicable sections) to the cabinet for every calendar quarter. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter and shall include the following information [401 KAR 59:005, Section 3]:
 - i. The magnitude of the excess emissions computed in accordance with 401 KAR 59:005, Section 4(8), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions
 - ii. Specific identification of each period of excess emission that occurs during start-ups, shutdowns, and malfunctions of the emission unit including the nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.
 - iii. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments.
 - iv. When no excess emissions have occurred or the continuous monitoring system(s) has not been inoperative, repaired, or adjusted, such information shall be stated in the report.

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

- b. For the reports regarding NO_x excess emissions, in lieu of those based on the water to fuel ratio monitoring, periods of excess emissions are defined for turbines using NO_x and diluent CEMS as follows [40 CFR 60.334(j)(1)]:
 - i. An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NO_x concentration exceeds the applicable emission limit in 40 CFR 60.332(a)(1) or (2). For the purposes of 40 CFR 60, Subpart GG, a “4-hour rolling average NO_x concentration” is the arithmetic average of the average NO_x concentration measured by the CEMS for a given hour (corrected to 15 percent O₂ and, if required under 40 CFR 60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NO_x concentrations immediately preceding that unit operating hour.
 - ii. A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour, for either NO_x concentration or diluent (or both).
 - iii. Each report shall include the ambient conditions (temperature, pressure, and humidity) at the time of the excess emission period and (if the permittee has claimed an emission allowance for fuel bound nitrogen) the nitrogen content of the fuel during the period of excess emissions. The permittee does not have to report ambient conditions if the permittee opts to use the worst case ISO correction factor as specified in 40 CFR 60.334(b)(3)(ii), or if the permittee is not using the ISO correction equation under the provisions of 40 CFR 60.335(b)(1).
- c. Excess emissions of SO₂ are defined by each unit operating hour included in the period beginning on the date and hour of any sample (or as otherwise required in the custom fuel sulfur monitoring plan) for which the sulfur content of the fuel being fired in the gas turbine(s) exceeds the limitations set forth in **2. Emission Limitations**; and ending on the date and hour that a subsequent sample is taken that demonstrates compliance. These periods of excess emissions shall be reported quarterly [40 CFR 60.334(j)(2)].
- d. See **Section F**.

7. Specific Control Equipment Operating Conditions:

- a. The permittee has the option to apply high temperature selective catalytic reduction (SCR) for NO_x control in its operation after initial demonstration of compliance with emission limitation set forth in **2. Emission Limitations**. The NO_x emissions limitations shall not exceed the permit limit when the SCR system is not in use. The total emission cap for the facility shall not exceed the limit established in Section D [401 KAR 50:055, Section 2].
- b. The dry low-NO_x burners shall be operated while burning natural gas to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices [401 KAR 50:055, Section 2].
- c. The water injection systems shall be operated while burning fuel oil to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices [401 KAR 50:055 Section 2].
- d. See **Section E, Source Control Equipment Requirements**, for further requirements.

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

Emission Unit 04 (HTR)

Forced Draft Indirect Water Bath Heater

Description:

Gas Tech Heater

Primary Fuel: Natural Gas

Maximum Continuous Rating: 5 MMBtu/hr

Construction Commenced: 2001

APPLICABLE REGULATIONS:

401 KAR 59:010, *New process operations*

1. Operating Limitations:

See **Section D** for source-wide operating limitations.

2. Emission Limitations:

- a. Particulate matter (PM) emissions from each stack shall not exceed the emissions listed below [401 KAR 59:010, Section 3(2)].

P = Process Rate in tons/hr	E = Particulate matter emissions rate in lb/hr
$P < 0.50$	$E = 2.34 \text{ lb/hr}$
$0.50 < P < 30$	$E = 3.59 * P^{0.62}$
$P > 30$	$E = 17.31 * P^{0.16}$

- b. No person shall cause, suffer, allow or permit a continuous emission into the open air from a control device or stack associated with any affected facility, which is equal to or greater than twenty (20) percent opacity [401 KAR 59:010, Section 3(1)].

Compliance Demonstration for a and b:

The unit is assumed to be in compliance with PM and opacity standards while burning natural gas.

3. Testing Requirements:

None

4. Monitoring Requirements:

The permittee shall monitor the amount of fuel burned, in MMscf, and hours of operation for the unit on a monthly basis [401 KAR 52:020, Section 10].

5. Recordkeeping Requirements:

The permittee shall maintain record of the amount of fuel burned, in MMscf, and hours of operation for the unit on a monthly basis [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

See Section F.

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

Emission Units 05-06 Two (2) Existing CI Emergency RICE <500 HP

Emission Unit	Description	Manufacture Date	Maximum Continuous Rating (HP)	Fuel	Control Equipment
05	Caterpillar 3306B Emergency Generator	2001	382	Diesel	None
06	Cummins 6BTA5.9-F1 Emergency Fire Pump		208		

APPLICABLE REGULATIONS:

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

Note: DC Circuit Court [*Delaware v. EPA*, 785 F. 3d 1 (DC Cir. 2015)] has vacated the provisions in 40 CFR 63, Subpart ZZZZ that contain the 100-hour exemption for operation of emergency engines for purposes of emergency demand response under 40 CFR 63.6640(f)(2)(ii)-(iii). The DC Circuit Court issued the mandate for the vacatur on May 4, 2016.

NON APPLICABLE REGULATIONS:

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

1. Operating Limitations:

- a. For each unit the permittee shall [40 CFR 63.6603(a), 40 CFR 63.6625(e), and 40 CFR 63.6625(i)]:
 - i. Change oil and filter every 500 hours of operation or annually, whichever comes first, or change oil utilizing an oil analysis program according to the methods and requirements in order to extend the specified oil change requirements
 - ii. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;
 - iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary
 - iv. Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-start emission limitations apply

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Compliance Demonstration:**

The permittee shall operate and maintain the engines according to the manufacturer's emission-related operating and maintenance instructions, or develop and follow the permittee own 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)].

- b. For each unit, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for fifty (50) hours per year is prohibited. There is no limit on the use of emergency stationary RICE in emergency situations. Maintenance checks and readiness testing of these units is limited to 100 hours per year. Operation of a unit in non-emergency situations is counted towards the 100 hours per year provided for maintenance and testing [40 CFR 63.6640(f)(1)(i)].
- c. The permittee shall be in compliance with the emission limitations and operating limitations in 40 CFR 63, Subpart ZZZZ that apply at all times [40 CFR 63.6605(a)].
- d. See **Section D** for source-wide operating limitations

2. Emission Limitations:

None

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

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

5. Specific Recordkeeping Requirements:

- a. The permittee shall keep records of each notification and report that is submitted, the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment, records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii), records of all required maintenance performed on the air pollution control and monitoring equipment, and records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation [40 CFR 60.6655(a)].
- b. The permittee shall maintain records of the maintenance conducted on the engine in order to demonstrate that the engine were operated and maintained, including any after-treatment control device, according to the maintenance plan for the engine. [40 CFR 63.6655(e)].

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

- c. If the engines are not certified to the standards applicable to non-emergency engines (see Table 2d to 40 CFR 63, Subpart ZZZZ), then the permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response, records shall be kept of the notification of the emergency situation, and the time the engines were operated as part of demand response [40 CFR 63.6655(f)(1)].

6. Specific Reporting Requirements:

- a. The permittee shall report each instance in which the operating limitations in Subsection 1 have not been met. These instances are deviations from the emission and operating limitation in 40 CFR 63, Subpart ZZZZ and shall be reported according to 40 CFR 63.6650 [40 CFR 63.6640(b)].
- b. The permittee shall report each instance in which the requirements of Table 8 to 40 CFR 63, Subpart ZZZZ, that apply, have not been met [40 CFR 63.6640(e)]. The notifications listed in 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f)(4) and (f)(6), 40 CFR 63.9(b) through (e), and (g) are not required [40 CFR 63.6645(a)(5)].
- c. See **Section F**.

SECTION C - INSIGNIFICANT ACTIVITIES

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

	<u>Description</u>	<u>Generally Applicable Regulation</u>
1.	Two (2) 3,0000 Gallon Tanks 19% Aqueous Ammonia Solutions	401 KAR 63:020
2.	Two (2) 300 Gallon Diesel Fuel Storage Tanks	N/A
3.	3000 Gallon Oil/Water Separator Tank	N/A
4.	259 Gallon By-Product Condensate Tank	N/A
5.	Fugitive Emissions from Natural Gas Fuel Handling System	401 KAR 63:010
6.	Two Fuel Oil Storage Tanks (580,000 Gallons Each)	N/A
7.	Fugitive Emissions from No. 2 ULSD Fuel Oil Handling System	401 KAR 63:010

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 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. Emissions of NO_x and CO, 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. For the gas combustion turbines, electric generator, fire water pump, and natural gas heater, emergency generator and emergency fire pump (Emission Units 01-06):
 - a) Pursuant to 401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart GG, and to preclude the applicability of 401 KAR 51:017, potential emissions of CO from the combustion turbines, electric generator, fire water pump, and natural gas heater (source-wide), Emission Units 01 through 06, shall not exceed 245 tons per year, during any consecutive twelve (12) month period. The potential emissions of NO_x from the combustion turbines, electric generator, fire water pump, and natural gas heater (source-wide), Emission Units 01 through 06, shall not exceed 95 tons per year, during any consecutive twelve (12) month period. The permittee shall assure compliance with these limitations by use of CEM systems for the combustion turbines and by performing calculations for the natural gas heater using emission factors provided in the permit application.
 - b)
 1. NO_x and CO Emissions from the combustion turbines Emission Unit 01 thru 03 shall be determined with CEMs.
 2. NO_x and CO Emissions from Emission Unit 04 natural gas heater may be calculated with the following equations: NO_x emissions = (emission factor from manufacturer = 0.12 lb/MMBtu)*(heat input = 5 MMBtu/hr)*(hours operated per month)*(1 ton/2000lbs) CO emissions = (emission factor from manufacturer = 0.05 lb/MMBtu)*(heat input = 5 MMBtu/hr)*(hours operated per month)*(1 ton/2000lbs).
 3. NO_x and CO Emissions from the Emission Unit 05 382 HP Diesel Emergency Generator may be calculated with the following equations: NO_x emissions = (emission factor from 2016 application = 617.40 lb/1000 Gallons)*(Hourly Design Capacity = 0.0179 1000 Gallons/hr)*(hours operated per month)*(1 ton/2000lbs) CO emissions = (emission factor from 2016 application = 133 lb/1000 Gallons)*(Hourly Design Capacity = 0.0179 1000 Gallons/hr)*(hours operated per month)*(1 ton/2000lbs)
 4. NO_x and CO Emissions from the Emission Unit 06 208 HP Diesel Emergency Fire pump may be calculated with the following equations: NO_x emissions = (emission factor from 2016 application = 617.40 lb/1000 Gallons)*(Hourly Design Capacity = 0.01 1000 Gallons/hr)*(hours operated per month)*(1 ton/2000lbs) CO emissions = (emission factor from 2016 application = 133 lb/1000 Gallons)*(Hourly Design Capacity = 0.01 1000 Gallons/hr)*(hours operated per month)*(1 ton/2000lbs)

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

- c) The permittee shall calculate and record the tons of NO_x and CO emissions emitted from the source on a monthly basis. Additionally, the permittee shall also calculate and record the tons of NO_x and CO emissions emitted from the source during any consecutive twelve (12) months.
- d) Compliance with the annual NO_x and CO emission limitations shall be determined by summing the emissions from the turbines, electric generator, fire water pump, and the gas heater for any consecutive twelve (12) months total.
- e) Records of tons of NO_x and CO emissions emitted from the source in any consecutive twelve (12) month period shall be reported quarterly to the Division's Frankfort Regional Office.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

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

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five (5) years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. In accordance with the requirements of 401 KAR 52:020, Section 3(1)h, the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

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

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1, the permittee shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
8. The permittee shall 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;

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

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

Division for Air Quality	U.S. EPA Region 4
Frankfort Regional Office	Air Enforcement Branch
300 Sower Boulevard, 1 st Floor	Atlanta Federal Center
Frankfort, KY 40601	61 Forsyth St.
	Atlanta, GA 30303-8960

- 10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within 30 days of the date the Kentucky Emissions Inventory System (KYEIS) emissions survey is mailed to the permittee.

SECTION G - GENERAL PROVISIONS**1. General Compliance Requirements**

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

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

SECTION G - GENERAL PROVISIONS (CONTINUED)

- q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the permittee 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 is authorized by this permit (V-21-048).

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.

SECTION G - GENERAL PROVISIONS (CONTINUED)

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

6. Acid Rain Program Requirements

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

7. Emergency Provisions

- a. Pursuant to 401 KAR 52:020, Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - (1) An emergency occurred and the permittee can identify the cause of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - (4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
 - (5) This requirement does not relieve the source of other local, state or federal notification requirements.

SECTION G - GENERAL PROVISIONS (CONTINUED)

- b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
- c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

8. Ozone Depleting Substances

- a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
 - (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

9. Risk Management Provisions

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

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None

SECTION J - ACID RAIN PERMIT**1. Statement of Basis:**

Statutory and Regulatory Authorities: The Energy and Environmental 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 76 and in accordance to KRS 224.10-100 and Titles IV and V of the Clean Air Act.

2. SO₂ allowances allocated under this permit and NO_x requirements for each affected unit.

Plant Name: Bluegrass Generating Station, East Kentucky Power Cooperative, Inc.

Affected Units: (GTG-01) – EU03 (G7G03)

<u>SO₂ Allowances</u>	<u>Year</u>				
<u>Tables 2, 3, or 4 of</u>	2022	2023	2024	2025	2026
<u>40 CFR Part 73</u>	0	0	0	0	0

<u>NO_x Requirements</u>	
<u>NO_x Limits</u>	N/A

3. Comments, Notes, and Justifications:

- a. The three combustion turbines, Emission Units 01-03 have no SO₂ allowances allocated by U.S. EPA.
- b. The three combustion turbines, Emission Units 01-03 do not have applicable NO_x limits set by 40 CFR Part 76.

4. Permit Application:

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

SECTION K - CLEAN AIR INTERSTATE RULE**1. Statutory and Regulatory Authority:**

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

2. Application and Requirements:

The CAIR application for three (3) electrical generating units was submitted to the Division and received on July 5, 2007. The standard requirements and special provisions set forth in the application are hereby incorporated into and made part of this CAIR Permit. [401 KAR 51:210, 401 KAR 51:220, and 401 KAR 51:230]. Pursuant to 401 KAR 52:020, Section 3, the source shall operate in compliance with those requirements.

3. Unit Description

The affected units are three (3) natural gas-fired simple combustion turbines each rated at 2076 MMBtu /hour (EU 01, EU 02 and 03). Each unit has a capacity to generate 208MW of electricity, which is offered for sale.

4. Summary of Actions

The CAIR Permit is being re-issued in conjunction with the Title V permit.

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

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 tables. These units are subject to the requirements for the CSAPR NO_x Annual Trading Program, CSAPR NO_x Ozone Season Group 2 Trading Program, and CSAPR SO₂ Group 1 Trading Program

Unit ID 01 thru 03: Three natural gas fired simple cycle turbines.					
Parameter	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR part 75, Subpart B (for SO ₂ monitoring) and 40 CFR part 75, Subpart H (for NO _x monitoring)	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR part 75, appendix E	Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19	EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, Subpart E
SO ₂		X			
NO _x	X				
Heat input	X				

1. The above description of the monitoring used by a unit does not change, create an exemption from, or otherwise affect the monitoring, recordkeeping, and reporting requirements applicable to the unit under 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 SO₂ Group 1 Trading Program). The monitoring, recordkeeping, and reporting requirements applicable to each unit are included below in the standard conditions for the applicable CSAPR trading programs.
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/emissions/monitoringplans.html>.

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

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 SO₂ Group 1 Trading Program). The Administrator's response approving or disapproving any petition for an alternative monitoring system is available on the EPA's website at:
<http://www.epa.gov/airmarkets/emissions/petitions.html>.
4. Owners and operators that want to use an alternative to any monitoring, recordkeeping, or reporting requirements under 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(29) (CSAPR NO_x Annual Trading Program), 401 KAR 51:250, Section 3(25) through 401 KAR 51:250, Section 3(29) (CSAPR NO_x 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 NO_x 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 NO_x 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 <http://www.epa.gov/airmarkets/emissions/petitions.html>.
5. The descriptions of monitoring applicable to the unit included above meet the requirement of 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(29) (CSAPR NO_x Annual Trading Program), 401 KAR 51:250, Section 3(25) through 401 KAR 51:250, Section 3(29) (CSAPR NO_x Ozone Season Group 2 Trading Program), and 401 KAR 51:260, Section 3(25) through 401 KAR 51:260, Section 3(29) (CSAPR SO₂ Group 1 Trading Program), and therefore minor permit modification procedures, in accordance with 40 CFR 70.7(e)(2)(i)(B), may be used to add or change this unit's monitoring system description.

CSAPR NO_x Annual Trading Program requirements (401 KAR 51:240, Section 3(4))**a) Designated representative requirements.**

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

b) Emissions monitoring, reporting, and recordkeeping requirements.

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

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Section 3(30) (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

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

c) NO_x emissions requirements.

- 1) CSAPR NO_x Annual emissions limitation.
 - i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall hold, in the source's compliance account, CSAPR NO_x Annual allowances available for deduction for such control period under 401 KAR 51:240, Section 3(20) (40 CFR 97.424(a)) in an amount not less than the tons of total NO_x emissions for such control period from all CSAPR NO_x Annual units at the source.
 - ii) If total NO_x emissions during a control period in a given year from the CSAPR NO_x Annual units at a CSAPR NO_x Annual source are in excess of the CSAPR NO_x Annual emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - A) The owners and operators of the source and each CSAPR NO_x Annual unit at the source shall hold the CSAPR NO_x Annual allowances required for deduction under 401 KAR 51:240, Section 3(20) (40 CFR 97.424(d)); and
 - B) The owners and operators of the source and each CSAPR NO_x Annual unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 401 KAR 51:240 and the Clean Air Act.
- 2) CSAPR NO_x Annual assurance provisions.
 - i) If total NO_x emissions during a control period in a given year from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO_x Annual allowances available for deduction for such control period under 401 KAR 51:240, Section 3(21) (40 CFR 97.425(a)) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 401 KAR 51:240, Section 3(21) (40 CFR 97.425(b)), of multiplying— (A) The quotient 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

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- common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and (B) The amount by which total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state for such control period exceed the state assurance level.
- ii) The owners and operators shall hold the CSAPR NO_x Annual allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
 - iii) Total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the State during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the state NO_x Annual trading budget under 401 KAR 51:240, Section 3(7)(a)(1) and the state's variability limit under 401 KAR 51:240, Section 3(7)(a)(3).
 - iv) It shall not be a violation of 401 KAR 51:240, or of the Clean Air Act if total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the State during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state during a control period exceeds the common designated representative's assurance level.
 - v) To the extent the owners and operators fail to hold CSAPR NO_x Annual allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - B) Each CSAPR NO_x Annual allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 401 KAR 51:240, and the Clean Air Act.
- 3) Compliance periods.
- i) A CSAPR NO_x Annual unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under 401 KAR 51:240, Section 3(25) (40 CFR 97.430(b)) and for each control period thereafter.
 - ii) A CSAPR NO_x Annual unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 401 KAR 51:240, Section 3(25) (40 CFR 97.430(b)) and for each control period thereafter.
- 4) Vintage of allowances held for compliance.
- i) A CSAPR NO_x Annual allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year shall be a CSAPR NO_x Annual allowance that was allocated for such control period or a control period in a prior year.
 - 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

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in a prior year or the control period in the given year or in the immediately following year.

- 5) Allowance Management System requirements. Each CSAPR NO_x Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 401 KAR 51:240.
 - 6) Limited authorization. A CSAPR NO_x Annual allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:
 - i) Such authorization shall only be used in accordance with the CSAPR NO_x Annual Trading Program; and
 - ii) Notwithstanding any other provision of 40 CFR 97, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
 - 7) Property right. A CSAPR NO_x Annual allowance does not constitute a property right.
- d) Title V permit revision requirements.**
- 1) No Title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_x Annual allowances in accordance with 401 KAR 51:240.
 - 2) This permit incorporates the CSAPR emissions monitoring, recordkeeping, and reporting requirements pursuant to 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(30), and the requirements for a continuous emission monitoring system (pursuant to 40 CFR 75, Subparts B and H), an excepted monitoring system (pursuant to 40 CFR 75, Appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR 75, Subpart E). Therefore, the Description of CSAPR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this Title V permit using minor permit modification procedures in accordance with 401 KAR 51:240, Section 3(4) (40 CFR 97.406(d)(2)) and 70.7(e)(2)(i)(B).
- e) Additional recordkeeping and reporting requirements.**
- 1) Unless otherwise provided, the owners and operators of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall maintain on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
 - i) The certificate of representation under 401 KAR 51:240, Section 3(13) for the designated representative for the source and each CSAPR NO_x Annual unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 401 KAR 51:240, Section 3(13) changing the designated representative.
 - ii) All emissions monitoring information, in accordance with 401 KAR 51:240.
 - iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO_x Annual Trading Program.
 - 2) The designated representative of a CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall make all submissions required under the CSAPR NO_x

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

f) Liability.

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

g) Effect on other authorities.

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

CSAPR NO_x Ozone Season Group 2 Group 2 Trading Program Requirements (401 KAR 51:250, Section 3(4))**a) Designated representative requirements.**

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

b) Emissions monitoring, reporting, and recordkeeping requirements.

- 1) 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).
- 2) 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

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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.

c) NO_x emissions requirements.**1) 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, and the Clean Air Act.

2) 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 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

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- 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, 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, and the Clean Air Act.
- 3) 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.
- 4) 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

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allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.

- 5) Allowance Management System requirements. Each CSAPR NO_x 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 401 KAR 51:250.
- 6) 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.
- 7) Property right. A CSAPR NO_x Ozone Season Group 2 allowance does not constitute a property right.

d) Title V permit revision requirements.

- 1) No Title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_x Ozone Season Group 2 allowances in accordance with 401 KAR 51:250.
- 2) 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 with 401 KAR 51:250, Section 3(4) (40 CFR 97.806(d)(2)) and 70.7(e)(2)(i)(B).

e) Additional recordkeeping and reporting requirements.

- 1) Unless otherwise provided, the owners and operators of each CSAPR NO_x 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.

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- 2) 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 CFR 70.

f) Liability.

- 1) 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.
- 2) 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.

g) 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.

CSAPR SO₂ Group 1 Trading Program requirements (401 KAR 51:260, Section 3(4))**a) Designated representative requirements.**

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

b) Emissions monitoring, reporting, and recordkeeping requirements.

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

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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.

c) SO₂ emissions requirements.**1) CSAPR SO₂ Group 1 emissions limitation.**

- i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR SO₂ Group 1 source and each CSAPR SO₂ Group 1 unit at the source shall hold, in the source's compliance account, CSAPR SO₂ Group 1 allowances available for deduction for such control period under 401 KAR 51:260, Section 3(20) (40 CFR 97.624(a)) in an amount not less than the tons of total SO₂ emissions for such control period from all CSAPR SO₂ Group 1 units at the source.
- ii) If total SO₂ emissions during a control period in a given year from the CSAPR SO₂ Group 1 units at a CSAPR SO₂ Group 1 source are in excess of the CSAPR SO₂ Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - A) The owners and operators of the source and each CSAPR SO₂ Group 1 unit at the source shall hold the CSAPR SO₂ Group 1 allowances required for deduction under 401 KAR 51:260, Section 3(20) (40 CFR 97.624(d)); and
 - B) The owners and operators of the source and each CSAPR SO₂ Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation 401 KAR 51:260, and the Clean Air Act.

2) CSAPR SO₂ Group 1 assurance provisions.

- i) If total SO₂ emissions during a control period in a given year from all CSAPR SO₂ Group 1 units at CSAPR SO₂ Group 1 sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such SO₂ emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR SO₂ Group 1 allowances available for deduction for such control period under 401 KAR 51:260, Section 3(21) (40 CFR 97.625(a)) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 401 KAR 51:260, Section 3(21) (40 CFR 97.625(b)), of multiplying—
 - A) The quotient of the amount by which the common designated representative's share of such SO₂ emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such SO₂ emissions exceeds the respective common designated representative's assurance level; and
 - B) The amount by which total SO₂ emissions from all CSAPR SO₂ Group 1 units at CSAPR SO₂ Group 1 sources in the state for such control period exceed the state assurance level.

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

- ii) The owners and operators shall hold the CSAPR SO₂ Group 1 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
- iii) Total SO₂ emissions from all CSAPR SO₂ Group 1 units at CSAPR SO₂ Group 1 sources in the state during a control period in a given year exceed the state assurance level if such total SO₂ emissions exceed the sum, for such control period, of the state SO₂ Group 1 trading budget under 401 KAR 51:260, Section 3(7)(a)(1) and the state's variability limit under 401 KAR 51:260, Section 3(7)(a)(3).
- iv) It shall not be a violation of 401 KAR 51:260, or of the Clean Air Act if total SO₂ emissions from all CSAPR SO₂ Group 1 units at CSAPR SO₂ Group 1 sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total SO₂ emissions from the CSAPR SO₂ Group 1 units at CSAPR SO₂ Group 1 sources in the state during a control period exceeds the common designated representative's assurance level.
- v) To the extent the owners and operators fail to hold CSAPR SO₂ Group 1 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - B) Each CSAPR SO₂ Group 1 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 401 KAR 51:260, and the Clean Air Act.
- 3) Compliance periods.
 - i) A CSAPR SO₂ Group 1 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 401 KAR 51:260, Section 3(25) (40 CFR 97.630(b)) and for each control period thereafter.
 - ii) A CSAPR SO₂ Group 1 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 401 KAR 51:260, Section 3(25) (40 CFR 97.630(b)) and for each control period thereafter.
- 4) Vintage of allowances held for compliance.
 - i) A CSAPR SO₂ Group 1 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year shall be a CSAPR SO₂ Group 1 allowance that was allocated for such control period or a control period in a prior year.
 - ii) A CSAPR SO₂ Group 1 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year shall be a CSAPR SO₂ Group 1 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
- 5) Allowance Management System requirements. Each CSAPR SO₂ Group 1 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 401 KAR 51:260.

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

- 6) Limited authorization. CSAPR SO₂ Group 1 allowance is a limited authorization to emit one ton of SO₂ during the control period in one year. Such authorization is limited in its use and duration as follows:
 - i) Such authorization shall only be used in accordance with the CSAPR SO₂ Group 1 Trading Program; and
 - ii) Notwithstanding any other provision of 401 KAR 51:260, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
 - 7) Property right. CSAPR SO₂ Group 1 allowance does not constitute a property right.
- d) Title V permit revision requirements.**
- 1) No Title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR SO₂ Group 1 allowances in accordance with 401 KAR 51:260.
 - 2) This permit incorporates the CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 401 KAR 51:260, Section 3(25) through 401 KAR 51:260, Section 3(30), and the requirements for a continuous emission monitoring system (pursuant to 40 CFR 75, Subparts B and H), an excepted monitoring system (pursuant to 40 CFR 75, Appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR 75, Subpart E). Therefore, the Description of CSAPR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this Title V permit using minor permit modification procedures in accordance with 401 KAR 51:260, Section 3(4) (40 CFR 97.606(d)(2)) and 70.7(e)(2)(i)(B).
- e) Additional recordkeeping and reporting requirements.**
- 1) Unless otherwise provided, the owners and operators of each CSAPR SO₂ Group 1 source and each CSAPR SO₂ Group 1 unit at the source shall maintain on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
 - i) The certificate of representation under 401 KAR 51:260, Section 3(13) for the designated representative for the source and each CSAPR SO₂ Group 1 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.616 changing the designated representative.
 - ii) All emissions monitoring information, in accordance with 401 KAR 51:260.
 - iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR SO₂ Group 1 Trading Program.
 - 2) The designated representative of a CSAPR SO₂ Group 1 source and each CSAPR SO₂ Group 1 unit at the source shall make all submissions required under the CSAPR SO₂ Group 1 Trading Program, except as provided in 401 KAR 51:260, Section 3(15). This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a Title V operating permit program in 40 CFR 70.

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

f) Liability.

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

g) Effect on other authorities.

No provision of the CSAPR SO₂ Group 1 Trading Program or exemption under 401 KAR 51:260, Section 3(3) shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR SO₂ Group 1 source or CSAPR SO₂ Group 1 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

Commonwealth of Kentucky
Division for Air Quality
EXECUTIVE SUMMARY

FINAL
Title V, Operating
Permit: V-21-048

East Kentucky Power Cooperative (EKPC), Inc.
3095 Commerce Parkway
LaGrange, KY 40031

December 30, 2022
John Jerrod Mays, Reviewer

SOURCE DESCRIPTION:

East Kentucky Power Cooperative, Inc (EKPC) owns and operates the Bluegrass Generating Station located in LaGrange, Kentucky. EKPC Bluegrass Generating Station is an electric power generating station consisting of three Siemens-Westinghouse 501FD2 natural gas-fired simple cycle combustion turbines; Emissions Unit 01 (EU 01), Emissions Unit 02 (EU 02) and Emissions Unit 03 (EU 03). Each unit has a maximum continuous rating of 2,076 million British thermal units per hour (MMBtu/hr) and is equipped with dry-low nitrogen oxides (NO_x) burners and water injection system. EU 01 and EU 02 are additionally equipped with high temperature selective catalytic reduction (SCR) control equipment technology.

The facility is classified as a Title V major source of air pollution based on the potential to emit more than 100 tons per year (tpy) of carbon monoxide (CO) and nitrogen oxides (NO_x).

DESCRIPTION OF ACTION:

On September 2, 2021, the Division for Air Quality (Division) received an application from East Kentucky Power Cooperative, Inc. (EKPC) for renewal of its Title V permit for the Bluegrass Generating Station. There have been no new changes at the facility since the issuance of V-16-018 R1.

U.S. EPA REVIEW:

The United States Environmental Protection Agency (U.S. EPA) was notified of the issuance of the proposed permit on November 13, 2022. The comment period expired 45 days from the date of e-mail. No comments were received during this period. The permit is now being issued final.



Andy Beshear
GOVERNOR

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

300 Sower Boulevard
Frankfort, Kentucky 40601
Phone: (502) 564-2150
Fax: 502-564-4245

Rebecca Goodman
SECRETARY

Anthony R. Hatton
COMMISSIONER

January 6, 2023

Mr. Jerry Purvis, Vice President, Environmental Affairs
East Kentucky Power Cooperative, Inc
4775 Lexington Road, P.O. Box 707
Winchester, KY 40392

Re: Final Title V Operating Permit for an Electric Services (fossil fuel power generation) facility
Permittee Name: East Kentucky Power Cooperative (EKPC), Inc.
Source Name: Bluegrass Generating Station
Source ID: 21-185-00036
Agency Interest: 39541
Activity: APE20210001
Permit: V-21-048

Dear Mr. Purvis:

East Kentucky Power Cooperative, Inc. – Bluegrass Generating Station applied for renewal of their Title V permit for the operation of an Electric Services (fossil fuel power generation) facility at LaGrange, Kentucky. The Division's final determination was the issuance of the proposed permit on November 13, 2022. The United States Environmental Protection Agency (U.S. EPA) was given 45 days to comment on the proposed permit. No comments were received from the U.S. EPA during the 45-day comment period, which ended December 29, 2022.

Included with this cover letter is the signed final permit for this facility, with the effective dates shown on the title page. This final permit carries with it the authority to operate any newly permitted emission units in accordance with the terms and conditions in this permit. If you have any questions regarding this matter, you may contact Mr. Zachary Bittner at 502-782-6555.

Sincerely,

A handwritten signature in black ink, reading "Stephanie Burberry". The signature is written in a cursive style with a large, stylized "S" and "B".

Stephanie Burberry
Program Coordinator
Permit Support Section
Permit Review Branch
Division for Air Quality

SB/ZB
Enclosure

Commonwealth of Kentucky
Division for Air Quality
STATEMENT OF BASIS / SUMMARY

Title V, Operating
Permit: V-21-048

East Kentucky Power Cooperative (EKPC), Inc.
3095 Commerce Parkway
LaGrange, KY 40031

May 26, 2022
John Jerrod Mays, Reviewer

SOURCE ID:	21-185-00036
AGENCY INTEREST:	39541
ACTIVITY:	APE20210001

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SECTION 1 – SOURCE DESCRIPTION

SIC Code and description: 4911, Electric Services (fossil fuel power generation)

Single Source Det. ☐ Yes ☒ No If Yes, Affiliated Source AI:

Source-wide Limit ☒ Yes ☐ No If Yes, See Section 4, Table A

28 Source Category ☐ Yes ☒ No If Yes, Category:

County: Oldham

Nonattainment Area ☒ N/A ☐ PM₁₀ ☐ PM_{2.5} ☐ CO ☐ NO_x ☐ SO₂ ☐ Ozone ☐ Lead

PTE* greater than 100 tpy for any criteria air pollutant ☒ Yes ☐ No

If yes, for what pollutant(s)?

☐ PM₁₀ ☐ PM_{2.5} ☒ CO ☒ NO_x ☐ SO₂ ☐ VOC

PTE* greater than 250 tpy for any criteria air pollutant ☒ Yes ☐ No

If yes, for what pollutant(s)?

☐ PM₁₀ ☐ PM_{2.5} ☒ CO ☐ NO_x ☐ SO₂ ☐ VOC

PTE* greater than 10 tpy for any single hazardous air pollutant (HAP) ☐ Yes ☒ No

PTE* greater than 25 tpy for combined HAP ☐ Yes ☒ No

*PTE does not include self-imposed emission limitations.

Description of Facility:

East Kentucky Power Cooperative, Inc (EKPC) owns and operates the Bluegrass Generating Station located in LaGrange, Kentucky. EKPC Bluegrass Generating Station is an electric power generating station consisting of three Siemens-Westinghouse 501FD2 natural gas-fired simple cycle combustion turbines; Emissions Unit 01 (EU 01), Emissions Unit 02 (EU 02) and Emissions Unit 03 (EU 03). Each unit has a maximum continuous rating of 2,076 million British thermal units per hour (MMBtu/hr) and is equipped with dry-low nitrogen oxides (NO_x) burners and water injection system. EU 01 and EU 02 are additionally equipped with high temperature selective catalytic reduction (SCR) control equipment technology.

The facility is classified as a Title V major source of air pollution based on the potential to emit more than 100 tons per year (tpy) of carbon monoxide (CO) and nitrogen oxides (NO_x).

SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM

Permit Number: V-21-048

Activities: APE20210001

Received: September 2, 2021

Application Complete Date(s): January 13, 2022

Permit Action: ☐ Initial ☒ Renewal ☐ Significant Rev ☐ Minor Rev ☐ Administrative

Construction/Modification Requested? ☐ Yes ☒ No NSR Applicable? ☐ Yes ☒ No

Previous 502(b)(10) or Off-Permit Changes incorporated with this permit action ☐ Yes ☒ No

Description of Action:

On September 2, 2021, the Division for Air Quality (Division) received an application from East Kentucky Power Cooperative, Inc. (EKPC) for renewal of its Title V permit for the Bluegrass Generating Station. There have been no new changes at the facility since the issuance of V-16-018 R1.

V-21-048 Emission Summary				
Pollutant	2020 Actual (tpy)	Previous PTE V-16-018 R1 (tpy)	Change (tpy)*	Revised PTE V-21-048 (tpy)
CO	170.78	285.1	0.0	285.1
NO _x	34.01	136.5	0.0	136.5
PT	4.21	25.5	0.0	25.5
PM ₁₀	4.21	25.5	0.0	25.5
PM _{2.5}	4.21	25.5	0.0	25.5
SO ₂	0.23	14.9	0.0	14.9
VOC	4.00	23.3	0.0	23.3
Greenhouse Gases (GHGs)				
Carbon Dioxide	19,037.88	97,113	453,451	550,564
Methane	4.95	18.1	23.9	42
Nitrous Oxide	0.97	3.4	11.1	14.5
CO ₂ Equivalent (CO ₂ e)	--	98,601.5	457,344.5	555,946.4
Hazardous Air Pollutants (HAPs)				
Formaldehyde	0.31	3.4	0.0	3.4
Sulfuric Acid	0.76	1.5	0.0	1.5
Toulene	0.13	0.6	0.0	0.6
Combined HAPs:	1.129	4.7	1.9	6.6

*Increase in PTE due to calculation errors made in previous Pollutants of Concern (POC) spreadsheet for V-16-018 R1. No changes have occurred at the facility.

SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS

Emission Units 01, 02, and 03 – Natural Gas-Fired, Simple Cycle Combustion Turbines				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
NO _x	111 ppm by volume @ 15% oxygen (dry basis)	40 CFR 60.332(a)(1)	57.25 lb/MMscf, Vendor Data	CEM
SO ₂	0.015% by volume @ 15% oxygen (dry basis)	40 CFR 60.333(a) and (b)	1.48 lb/MMscf, Vendor Data	Certified fuel flow monitoring system
CO	50 ppm	401 KAR 52:020, Section 10 and Self-imposed to preclude 401 KAR 51:017	58.26 lb/MMscf, Vendor Data	CEM

Initial Construction Date:

October 2000 (Emission Units 01 and 02)

June 2001 (Emission Unit 03)

Process Description:

Fossil fuel combustion for electrical power generation.

Model: Siemens-Westinghouse 501FD
Maximum Continuous Rating: 2,076 MMBtu/hr rated heat input capacity (each), 208 MW rated capacity output (each)
Primary Fuel: Natural Gas
Secondary Fuel: No. 2 Ultra Low Sulfur Diesel Fuel Oil
Control Equipment: Dry-Low NO_x Burners & Water Injection on all three units, High Temperature Selective Catalytic Reduction (SCR) on Units 01 & 02

Applicable Regulation:

401 KAR 51:160, *NO_x requirements for large utility and industrial boilers*, applicable to NO_x budget units that are electric generating units or industrial; boiler or turbines.

401 KAR 51:210, *CAIR NO_x annual trading program*, applicable to CAIR NO_x units in Kentucky that are subject to 40 C.F.R. 96.104.

401 KAR 51:220, *CAIR NO_x ozone season trading program*, applicable to CAIR NO_x Ozone Season units in Kentucky subject to 40 C.F.R. 96.304, a new industrial boiler or turbine, or a new or existing electric generating unit including a fossil-fueled boiler, combustion turbine, or combined cycle system serving a generator with a nameplate capacity greater than twenty-five (25) megawatts of electricity and offering some electricity for sale.

401 KAR 51:230, *CAIR SO₂ trading program*, applicable to CAIR SO₂ sources and CAIR SO₂ units under the CAIR SO₂ Trading Program located in Kentucky that are subject to 40 C.F.R. 96.204.

401 KAR 51:240, *Cross-State Air Pollution Rule (CSAPR) NO_x annual trading program*.

Emission Units 01, 02, and 03 – Natural Gas-Fired, Simple Cycle Combustion Turbines

401 KAR 51: 260, *Cross-State Air Pollution Rule (CSAPR) SO₂ group 1 trading program*

401 KAR 52:060, *Acid rain permits*, applies to affected sources and affected units under the Acid Rain Program. The regulation incorporates by reference federal acid rain provisions codified in 40 CFR parts 72 to 78.

401 KAR 60:005, Section 2(2)(pp), 40 C.F.R. 60.330 to 60.335 (Subpart GG), *Standards of Performance for Stationary Gas Turbines*

40 CFR Part 75, *Continuous Emissions Monitoring (CEM)*, establishes general requirements for the installation, certification, operation, and maintenance of continuous emission or opacity monitoring systems.

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

Precluded Regulations:

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

To preclude this regulation, the source has voluntarily accepted federally-enforceable limitations on emissions of CO.

Non Applicable Regulations:

401 KAR 60:005, Section 2(2)(ffff), 40 C.F.R. 60.4300 to 60.4420, Table 1 (Subpart KKKK), *Standards of Performance for Stationary Gas Turbines*, is not applicable based upon definition. According to 40 CFR 60.14(a) and within the meaning of section 111 of the Clean Air Act, a modification means any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere. However, in 40 CFR 60.14(e), the following shall not by themselves be considered modifications. In 40 CFR 60.14(e)(4), use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by § 60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Clean Air Act, shall not be considered a modification. EKPC contacted Siemens to confirm that the turbines listed in permit V-16-018 R1 were designed at the time of installation to accommodate the use of both natural gas and/or fuel oil. In Appendix D of EKPC application (APE20180001) there is a letter from Siemens stating these turbines were designed to support natural gas and fuel oil. The regulation is also not applicable based on the definition of reconstruction. Pursuant to 40 CFR 60.15(b), "Reconstruction" means the replacement of components of an existing facility to such an extent that: (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and (2) It is technologically and economically feasible to meet the applicable standards set forth in this part. EKPC used the original cost and adjusted the cost for April of 2018 to determine the cost of the turbines in 2018. The total cost for these turbines is \$139,253,780, while the projected cost for the fuel oil storage tanks and deliver systems is \$62,000,000. Based on the costed list in the application reconstruction definition does not apply.

Emission Units 01, 02, and 03 – Natural Gas-Fired, Simple Cycle Combustion Turbines

401 KAR 60:005, Section 2(2)(jjjj), 40 C.F.R. 60.5508 to 60.5580, Tables 1 to 3 (Subpart TTTT), *Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units*, is not applicable. Refer to 40 CFR 60 Subpart KKKK for reasoning.

401 KAR 63:002, Section 2(4)(dddd), 40 C.F.R. 63.6080 to 63.6175, Tables 1 to 7 (Subpart YYYYY), *National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines*. This facility is minor source for HAPS thus the regulation does not apply.

State Origin Requirements:

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Comments:

The permittee of the gas turbine shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by 401 KAR 59:005 recorded in a permanent form suitable for inspection [401 KAR 59:005, Section 3].

Emission Unit 04 – Forced Draft Indirect Water Bath Heater				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	E = 3.59P ^{0.62} , P<30 tons/hr E = 17.31P ^{0.16} , P>30 tons/hr	401 KAR 59:010, Section 3(2)	7.6 lb/MMscf AP-42, Table 1.4-2	Assumed based upon natural gas combustion
	20% opacity	401 KAR 59:010, Section 3(1)(a)	N/A	
Initial Construction Date: 2000				
Process Description:				
This heater is used to raise the temperature of the natural gas coming out of the ground piping to insure it remains above the dew point to prevent liquids from reaching the combustion nozzles. The natural gas heater utilizes a liquid bath, heated by a fire-tube to heat a process coil submerged in a glycol bath.				
Model:		Gas Tach Heater		
Maximum Continuous Rating:		5 MMBtu/hr		
Fuel:		Natural Gas		
Control Equipment:		None		
Applicable Regulation:				
401 KAR 59:010, <i>New process operations</i> , this is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.				
Comments:				
For the equation E = rate of emission in lb/hr and P = process weight rate in tons/hour				

Emission Units 05 & 06 – Diesel-Fired Emergency RICEs

Manufacture Date: 2001

Process Description:

In the event of a loss of all electricity, EU 05 automatically starts and provides backup power to the battery chargers, control room power, air compressors, and microprocessor based controls. EU 06 is a part of the fire protection system for the facility. The pump intake is connected to the site fire water supply tank, and provides water flow at a high pressure to the sprinkler system and fire hydrants throughout the plant.

Model:	Caterpillar 3306B Emergency Generator (EU 05) Cummins 6BTA5.9-F1 Emergency Fire Pump (EU 06)
Maximum Continuous Rating:	382 hp (EU 05) 208 hp (EU 06)
Fuel:	No. 2 Ultra Low Sulfur Diesel Fuel Oil
Control Equipment:	None

Applicable Regulation:

401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 to 63.6675, Tables 1a to 8, and Appendix A (Subpart ZZZZ), *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, applicable to stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand. A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

Non Applicable Regulation:

401 KAR 60:005 Section 2(2)(dddd), 40 C.F.R. 60.4200 to 60.4219, Tables 1 to 8 (Subpart IIII), *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*
This subpart does not apply to units constructed prior to July 11, 2005

Comments:

The permittee shall operate and maintain the engines according to the manufacturer's emission-related operating and maintenance instructions, or develop and follow the permittee own 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)].

SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS (CONTINUED)

Testing Requirements/Results

Emission Unit(s)	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
01	Low NOx Burner	NOx, lb/MMBtu	40 CFR 60.8	Annually	Method 7E		2.35	165 MW	CMN20200002	8/18/2020
		NOx, ppm					2.57			
		NOx, ppm @15% O ₂					0.40			
	None	CO, ppm			Method 10		0.22			
		O ₂ , %			Method 3A		0.04			
	02	Low NOx Burner	NOx, lb/MMBtu		40 CFR 60.8	Method 7E				
NOx, ppm							3.24			
NOx, ppm @15% O ₂							0.69			
None		CO, ppm			Method 10		0.17			
		O ₂ , %			Method 3A		0.06			
03		Low NOx Burner	NOx, lb/MMBtu		40 CFR 60.8	Method 7E				4.62
	NOx, ppm						4.10			
	NOx, ppm @15% O ₂			0.76						
	None	CO, ppm		Method 10		0.35				
		O ₂ , %		Method 3A		0.04				

Emission Unit(s)	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
01	Low NOx Burner	NOx, lb/MMBtu	40 CFR 60.8	Annually	Method 7E		3.79	165.88 MW	CMN20200001	8/20/2019
		NOx, ppm					0.40			
		NOx, ppm @15% O ₂					4.17			
	None	CO, ppm			Method 10		0.35			
		O ₂ , %			Method 3A		0.01			
	02	Low NOx Burner	NOx, lb/MMBtu		40 CFR 60.8	Method 7E				
NOx, ppm							0.29			
NOx, ppm @15% O ₂							2.29			
None		CO, ppm			Method 10		0.16			
		O ₂ , %			Method 3A		0.02			
03		Low NOx Burner	NOx, lb/MMBtu		40 CFR 60.8	Method 7E		0.74		166.03 MW
	NOx, ppm						0.12			
	NOx, ppm @15% O ₂			1.60						
	None	CO, ppm		Method 10		0.52				
		O ₂ , %		Method 3A		0.08				

Emission Unit(s)	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
01	Low NOx Burner	NOx, lb/MMBtu	40 CFR 60.8	Annually	Method 7E		2.43	166.8 MW	CMN20190001	8/30/2018
		NOx, ppm					3.50			
		NOx, ppm @15% O ₂					4.48			
	None	CO, ppm			Method 10		0.06			
		O ₂ , %			Method 3A		0.665			
	02	Low NOx Burner	NOx, lb/MMBtu		40 CFR 60.8	Method 7E				
NOx, ppm							1.596			
NOx, ppm @15% O ₂							2.564			
None		CO, ppm			Method 10		0.105			
		O ₂ , %			Method 3A		0.558			
03		Low NOx Burner	NOx, lb/MMBtu		40 CFR 60.8	Method 7E		2.845	CMN20190003	8/31/2018
	NOx, ppm						2.884			
	NOx, ppm @15% O ₂						2.841			
	None	CO, ppm			Method 10		0.935			
		O ₂ , %			Method 3A		0.557			

Emission Unit(s)	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
01	Low NOx Burner	NOx, lb/MMBtu	40 CFR 60.8	N/A	Method 7E		7.26	132 MW	CMN20180001	11/16/2017
		NOx, ppm					0.89			
		NOx, ppm @15% O ₂					6.69			
	None	CO, ppm			Method 10		2.27			
		O ₂ , %			Method 3A		0.001			
02	Low NOx Burner	NOx, lb/MMBtu	40 CFR 60.8	N/A	Method 7E		1.150	132 MW	CMN20180001	11/9/2017
		NOx, ppm					0.254			
		NOx, ppm @15% O ₂					2.106			
	None	CO, ppm			Method 10		1.144			
		O ₂ , %			Method 3A		0.152			
03	Low NOx Burner	NOx, lb/MMBtu	40 CFR 60.8	Annually	Method 7E		4.126	168 MW	CMN20180001	11/8/2017
		NOx, ppm					1.302			
		NOx, ppm @15% O ₂					4.493			
	None	CO, ppm			Method 10		0.211			
		O ₂ , %			Method 3A		0.031			

Emission Unit(s)	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing			
01	Low NOx Burner	NOx, lb/MMBtu	40 CFR 60.8		Method 7E		1.31	128 MW	CMN20170002	N/A			
		NOx, ppm					0.94						
		NOx, ppm @15% O ₂					1.07						
	None	CO, ppm			Method 10		2.77						
		O ₂ , %			Method 3A		0.47						
	02	Low NOx Burner	NOx, lb/MMBtu		40 CFR 60.8	Method 7E					2.42		
NOx, ppm							1.00						
NOx, ppm @15% O ₂							3.21						
None		CO, ppm			Method 10		7.69						
		O ₂ , %			Method 3A		0.84						
03		Low NOx Burner	NOx, lb/MMBtu		40 CFR 60.8	Method 7E					1.71	170 MW	
	NOx, ppm						1.26						
	NOx, ppm @15% O ₂			1.69									
	None	CO, ppm		Method 10		6.02							
		O ₂ , %		Method 3A		0.47							

Emission Unit(s)	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
03	Low NOx Burner	NOx, lb/MMBtu	40 CFR 60.8	Annually	Method 7E		2.21	171.0 MW	CMN20160001	7/29/2015
		NOx, ppm					1.46			
		NOx, ppm @15% O ₂					2.30			
	None	CO, ppm			Method 10		0.39			
		O ₂ , %			Method 3A		0.73			
03	Low NOx Burner	NOx, lb/MMBtu	40 CFR 60.8	N/A	Method 7E		2.17	167.8 MW	CMN20150001	8/19/2009
		NOx, ppm					7.95			
		NOx, ppm @15% O ₂					1.75			
		NOx, lb/hr					5.76			
	None	CO, ppm			Method 6C		0.69			
		CO, ppm @15%O ₂					0.69			
		CO, lb/hr					0.69			
		O ₂ , %					0.69			
					Method 2G		0.40			
01	Low NOx Burner	NOx, lb/MMBtu	40 CFR 60.8	Initial	Method 7E		0.003	168 MW	CMN20090002	N/A
	None	O ₂ , %			Method 3A		0.53			
		CO, ppm			Method 10		1.6			

Emission Unit(s)	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
02	Low NOx Burner	NOx, lb/MMBtu	40 CFR 60.8	Initial	Method 7E		6.1	168 MW	CMN20090002	N/A
	None	O ₂ , %			Method 3A		0.49			08/18/2009
		CO, ppm			Method 10		2			
03	Low NOx Burner	NOx, lb/MMBtu	40 CFR 60.8		Method 7E		3.64	170 MW		N/A
	None	O ₂ , %			Method 3A		0.53			
		CO, ppm					0.1			
02	None	CO Startup, lbs			Method 10		1618.5	0-143 MW	CMN20090001	N/A
		CO Shutdown, lbs					514.7	160.8-0.1 MW		

Footnotes:

SECTION 4 – SOURCE INFORMATION AND REQUIREMENTS

Table A - Group Requirements:

Emission and Operating Limit	Regulation	Emission Unit
245 tpy of CO emissions (including during start-up and shutdown)	401 KAR 52:020, Section 10 and Self-imposed to preclude 401 KAR 51:017	01, 02 & 03
Combined 4,757 operating hours during any consecutive twelve (12) month period	Self-imposed to preclude 401 KAR 51:017	01, 02 & 03

Table B - Summary of Applicable Regulations:

Applicable Regulations	Emission Unit
401 KAR 51:160 , <i>NO_x requirements for large utility and industrial boilers</i>	01, 02 & 03
401 KAR 51:210 , <i>CAIR NO_x annual trading program</i>	01, 02 & 03
401 KAR 51:220 , <i>CAIR NO_x ozone season Trading Program</i>	01, 02 & 03
401 KAR 51:230 , <i>CAIR SO₂ trading program</i>	01, 02 & 03
401 KAR 52:060 , <i>Acid rain permits</i>	01, 02 & 03
401 KAR 63:020 , <i>Potentially hazardous matter or toxic substances</i>	01, 02 & 03
401 KAR 60:005, Section 2(2)(pp) , 40 C.F.R. 60.330 to 60.335 (Subpart GG), <i>Standards of Performance for Stationary Gas Turbines</i>	01, 02 & 03
40 CFR 75 , <i>Continuous Emissions Monitoring (CEM)</i>	01, 02 & 03
40 CFR Part 97, Subpart AAAAA , <i>CSAPR NO_x Annual Trading Program</i>	01, 02 & 03
40 CFR Part 97, Subpart BBBBB , <i>CSAPR NO_x Ozone Season Group 1 Trading Program</i>	01, 02 & 03
40 CFR Part 97, Subpart CCCCC , <i>CSAPR SO₂ Group 1 Trading Program</i>	01, 02 & 03
40 CFR Part 97, Subpart EEEEE , <i>CSAPR NO_x Ozone Season Group 2 Trading Program</i>	01, 02 & 03
401 KAR 59:010 , <i>New process operations</i>	04
401 KAR 63:002, Section 2(4)(eeee) , 40 CFR 63.6580 to 63.6675, Tables 1a to 8, and Appendix A (Subpart ZZZZ), <i>National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</i>	05 & 06

Table C - Summary of Precluded Regulations:

Precluded Regulations	Emission Unit
401 KAR 51:017 , <i>Prevention of significant deterioration of air quality</i>	01, 02 & 03

Table D - Summary of Non Applicable Regulations:

Non Applicable Regulations	Emission Unit
401 KAR 60:005, Section 2(2)(r) , 40 C.F.R. 60.110b to 60.117b, (Subpart Kb) , <i>Standards of Performance for Volatile Organic Liquid Storage Vessels</i>	IA #6
401 KAR 60:005, Section 2(2)(ffff) , 40 C.F.R. 60.4300 to 60.4420, Table 1 (Subpart KKKK) , <i>Standards of Performance for Stationary Gas Turbines</i>	01, 02 & 03
401 KAR 60:005, Section 2(2)(jjjj) , 40 C.F.R. 60.5508 to 60.5580, Tables 1 to 3 (Subpart TTTT) , <i>Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units</i>	01, 02 & 03
401 KAR 63:002, Section 2(4)(dddd) , 40 C.F.R. 63.6080 to 63.6175, Tables 1 to 7 (Subpart YYYY) , <i>National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines</i>	01, 02 & 03
401 KAR 60:005 Section 2(2)(dddd) , 40 C.F.R. 60.4200 to 60.4219, Tables 1 to 8 (Subpart IIII) , <i>Standards of Performance for Stationary Compression Ignition Internal Combustion Engines</i>	05 & 06

SECTION 4 – SOURCE INFORMATION AND REQUIREMENTS (CONTINUED)

Air Toxic Analysis

401 KAR 63:020, *Potentially Hazardous Matter or Toxic Substances*

The Division for Air Quality (Division) has performed SCREEN View on February 18, 2022 of potentially hazardous matter or toxic substances (Formaldehyde, Manganese, Sulfuric Acid) that may be emitted by the facility based upon the process rates, material formulations, stack heights and other pertinent information provided by the applicant. Based upon this information, the Division has determined that the conditions outlined in this permit will assure compliance with the requirements of 401 KAR 63:020.

Single Source Determination

N/A

SECTION 5 – PERMITTING HISTORY

Permit	Permit Type	Activity#	Complete Date	Issuance Date	Summary of Action	PSD/Syn Minor
F-99-028	Conditional Major	--	--	--	Initial	Syn Minor
V-00-052	Title V	APE20050001	5/13/2000	6/5/2001	Scanned Historic Permit-5 year	
V-05-080		APE20050002	12/22/2005	7/11/2006	Renewal	
V-11-005		APE20110001	4/8/2011	9/19/2011	Renewal	N/A
V-11-005 R1		APE20160001	2/1/2016	3/4/2016	Admin Amend	
V-16-018		APE20160002	5/17/2016	3/3/2017	Renewal	
V-16-018 R1		APE20180001	6/27/2018	1/13/2019	Significant Revision add fuel oil as back up fuel for the turbines	Syn Minor

SECTION 6 – PERMIT APPLICATION HISTORY

N/A

APPENDIX A – ABBREVIATIONS AND ACRONYMS

AAQS	– Ambient Air Quality Standards
BACT	– Best Available Control Technology
Btu	– British thermal unit
CAM	– Compliance Assurance Monitoring
CO	– Carbon Monoxide
Division	– Kentucky Division for Air Quality
ESP	– Electrostatic Precipitator
GHG	– Greenhouse Gas
HAP	– Hazardous Air Pollutant
HF	– Hydrogen Fluoride (Gaseous)
MSDS	– Material Safety Data Sheets
mmHg	– Millimeter of mercury column height
NAAQS	– National Ambient Air Quality Standards
NESHAP	– National Emissions Standards for Hazardous Air Pollutants
NO _x	– Nitrogen Oxides
NSR	– New Source Review
PM	– Particulate Matter
PM ₁₀	– Particulate Matter equal to or smaller than 10 micrometers
PM _{2.5}	– Particulate Matter equal to or smaller than 2.5 micrometers
PSD	– Prevention of Significant Deterioration
PTE	– Potential to Emit
SO ₂	– Sulfur Dioxide
TF	– Total Fluoride (Particulate & Gaseous)
VOC	– Volatile Organic Compounds