

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

Final

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

Permittee Name: DTE Calvert City, LLC
Mailing Address: 480 N. Main Street, Calvert City, KY 42029

Source Name: DTE Calvert City, LLC
Mailing Address: 480 N. Main Street, Calvert City, KY 42029

Source Location: 480 N. Main Street, Calvert City

Permit ID: V-24-037
Agency Interest #: 111104
Activity ID: APE20210001
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Source ID: 21-157-00070

Regional Office: Paducah Regional Office
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Application
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Expiration Date: April 25, 2030

Rick Shewekah

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

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Permit	Permit Type	Activity#	Complete Date	Issuance Date	Summary of Action
V-24-037	Renewal	APE20210001	12/9/2024	4/25/2025	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 has been issued under the provisions of Kentucky Revised Statutes (KRS) Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

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

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**RB1 Rental Boiler**

Indirect Heat Exchanger

Fuel: Natural Gas only

Rated Capacity: Less than or equal to 95 MMBtu/hr heat input

Constructed: Prior to January 13, 2003

Controls: Low NO_x Burner**APPLICABLE REGULATIONS:**

401 KAR 59:015, New indirect heat exchangers.

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

STATE-ORIGIN REQUIREMENT:

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

1. Operating Limitations:

- a. The permittee shall only fire natural gas in the rental boiler. [401 KAR 52:020, Section 10]
- b. The total heat input of the two Heat Recovery Steam Generators (HRSGs) and the rental boiler while in operation will be limited to 620 MMBtu/hr higher heating value (HHV). [401 KAR 52:020, Section 10]
- c. Listing the rental boiler as an emission unit authorizes a generic rental boiler to be brought on site and used as needed. Any boiler brought on site and operated under authorization of this emission unit shall be natural gas fired, equipped with low NO_x burners, and rated at less than or equal to 95 MMBtu/hr heat input capacity. Only one such boiler shall be allowed at any time. [401 KAR 52:020, Section 10]

Compliance Demonstration Methods:See **5. Specific Recordkeeping Requirements a. through d.**

- d. During a startup period or shutdown period, the permittee shall comply with the work practice standards established in 401 KAR 59:015, Section 7. [401 KAR 59:015, Section 7]
 - i. The permittee shall comply with 401 KAR 50:055, Section 2(5); [401 KAR 59:015, Section 7(1)(a)]
 - ii. The frequency and duration of startup periods or shutdown periods shall be minimized by the affected facility; [401 KAR 59:015, Section 7(1)(b)]
 - iii. All reasonable steps shall be taken by the permittee to minimize the impact of emissions on ambient air quality from the affected facility during startup periods and shutdown periods; [401 KAR 59:015, Section 7(1)(c)]
 - iv. The actions, including duration of the startup period, of the permittee during startup and shutdown periods, shall be documented in signed, contemporaneous logs or other relevant evidence; [401 KAR 59:015, Section 7(1)(d)]

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

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

Compliance Demonstration Method:

Compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements** e.

2. Emission Limitations:

- a. The permittee shall not cause emissions of particulate matter emissions in excess of 0.10 lb/MMBtu actual heat input. [401 KAR 59:015, Section 4(1)(b)]
- b. The permittee shall not cause emissions of particulate matter in excess of 20 percent opacity, except [401 KAR 59:015, Section 4(2)]:
 - i. A maximum of 27% opacity shall be allowed for one (1) six (6) minute period in any sixty (60) consecutive minutes [401 KAR 59:015, Section 4(2)(a)];
 - ii. For emissions from an affected facility caused by building a new fire, emissions during the period required to bring the boiler up to operating conditions shall be allowed, if the method used is recommended by the manufacturer and the time does not exceed the manufacturer's recommendations [401 KAR 59:015, Section 4(2)(c)];
 - iii. The opacity standard does not apply during periods of startup and shutdown. [401 KAR 50:055, Section 2(4)]
- c. The permittee shall not cause emissions of gases that contain sulfur dioxide in excess of eight-tenths (0.8) lb/MMBtu actual heat input. [401 KAR 59:015, Section 5(1)(b)]

Compliance Demonstration Methods:

The permittee is assumed to be in compliance with the 401 KAR 59:015 emission standards when firing natural gas as fuel.

- d. Persons responsible for a source from which hazardous matter or toxic substances may be emitted shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. No owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the cabinet. [401 KAR 63:020, Section 3]

Compliance Demonstration Method:

Based upon the emission rates of toxics and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information

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

submitted by the source, the Cabinet determines the affected facility to be in compliance with 401 KAR 63:020.

3. Testing Requirements:

Performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet. [401 KAR 50:045, Section 1, and 401 KAR 59:005, Section 2(2)]

4. Specific Monitoring Requirements:

- a. The permittee shall monitor the amount of natural gas combusted, in MMscf, on a monthly basis. [401 KAR 52:00, Section 10]
- b. See **Section F, Monitoring, Recordkeeping, and Reporting Requirements.**

5. Specific Recordkeeping Requirements:

- a. The permittee shall record and maintain records of the fuel combusted during each calendar month. [40 CFR 60.48c(g)(3)]
- b. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the boiler. [401 KAR 59:005, Section 3(2)]
- c. The permittee shall maintain a file of all measurements, including performance testing measurements, if performance tests are required, and all other information required under 401 KAR 59:005 and 40 CFR 60, Subpart Dc, recorded in a permanent form suitable for inspection. All records required shall be maintained by the permittee for a period of at least two (2) years following the date of such record. [401 KAR 59:005, Section 3(4) and 40 CFR 60.48c(i)]
- d. The permittee shall keep records of the periods of time when the two HRSG and the rental boiler are in operation at the same time. [401 KAR 52:020, Section 10]
- e. The permittee shall keep records of the manufacturer's recommended procedures for startup and shutdown, any instance in which the recommended procedures were not followed, and any corrective action taken. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

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

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

D-1 26 MW Gas Turbine

Venting through Bypass Stacks A and B, or one or both HRSGs.

Make: General Electric

Model: LM-2500+

Fuel: Natural Gas supplied by pipeline

Rated Capacity: 276.6 MMBtu/hr lower heating value (LHV)
26 Mega Watt (MW)

Constructed: March 22, 1999

Controls: Dry Low NO_x Combustor

APPLICABLE REGULATIONS:

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

401 KAR 51:220, CAIR NO_x ozone season trading program. See Section K, Clean Air Interstate Rule (CAIR).

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

1. Operating Limitations:

See Section D, Source Emission Limitations and Testing Requirements, 3.a. Operating Limitations.

2. Emission Limitations:

- a. The permittee, on and after the date on which the initial performance test is required to be completed, shall not cause to be discharged into the atmosphere from the turbine any gases which contain nitrogen oxides in excess of 0.01095 percent by volume at 15% oxygen and on a dry basis (109.5 ppmvd at 15% O₂). [40 CFR 60.332(a)(1) and (b)]

Compliance Demonstration Methods:

The permittee shall compute the nitrogen oxides emissions (NO_x) in percent by volume at 15% oxygen and on a dry basis using the following equation as provided for in 40 CFR 60.335(b)(1), or pursuant to 40 CFR 60.335(c)(1), the permittee may use ambient condition correction factors as developed by the manufacturer to adjust the nitrogen oxides emission level measured by the performance test as provided in 40 CFR 60.8 to ISO standard day conditions.

$$NO_x = (NO_{xo}) * \left(\frac{P_r}{P_o}\right)^{0.5} * e^{19(H_o - 0.00633)} \left(\frac{288^\circ K}{T_a}\right)^{1.53}$$

where:

NO_x= emission concentration of NO_x at 15% O₂ and ISO standard conditions, ppm by volume, dry basis.

NO_{xo}=mean observed NO_x concentration, ppm by volume, dry basis, at 15 percent O₂.

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

- P_r = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure. Alternatively, you may use 760 mm Hg (29.92 in Hg).
 P_o = observed combustor inlet absolute pressure at test, mmHg. Alternatively you may use the barometric pressure for the date of the test.
 e = transcendental constant, 2.718.
 H_o = observed humidity of ambient air, g H₂O/g air.
 T_a = ambient temperature, °K.

- b. On and after the date on which the initial performance test is required to be completed, the permittee shall not burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw). [40 CFR 60.333(b)]

Compliance Demonstration Methods:

See **4. Specific Monitoring Requirements** c, **5. Specific Recordkeeping Requirements** b. and **6. Specific Reporting Requirements** b.

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

- a. The permittee shall install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) (consisting of a NO_x pollutant concentration monitor and a CO₂ diluent gas monitor) with an automated data acquisition and handling system for measuring and recording NO_x concentration and CO₂ concentration discharged to the atmosphere, in accordance with the applicable requirements of 40 CFR 60.13, Performance Specifications 2 and 3 of 40 CFR 60, Appendix B; 40 CFR 60 Appendix F, and 40 CFR 75 Appendices A and B in order to determine continuous compliance with the NO_x emission limitation using Compliance Demonstration Method for **2. Emission Limitations**, Condition a. above. [40 CFR 60.334(c) and U.S.EPA Region IV Determination Letter dated February 1, 1999]
- b. The permittee is not required to monitor the nitrogen content of the natural gas fired in the turbine. [40 CFR 60.334(h)(4) and U.S.EPA Region IV Determination Letter dated February 1, 1999]
- c. The permittee shall monitor quarterly the sulfur content of the natural gas fired in the turbine using the Gas Producers Association (GPA) method for Determination of Hydrogen Sulfide and Mercaptan Sulfur in Natural Gas, or any approved method specified in 40 CFR 60.335(b)(10)(ii). The analysis may be performed by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency. The fuel sample shall be taken downstream of the sulfur injection. [40 CFR 60.334(i)(3) and U.S.EPA Region IV Determination Letter dated February 1, 1999]

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

- d. The permittee shall take annual measurements of the ambient day conditions H_o and T_a , as defined in the Compliance Demonstration Method for **2. Emission Limitations** a., in August of each calendar year, and use the most recent measurements for compliance calculations. [401 KAR 52:020, Section 10]
- e. See **Section D, Source Emission Limitations and Testing Requirements**, Subsection **3.b. Specific Monitoring Requirements**.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the following information in a permanent form suitable for inspection for a period of 5 years from the generation of such record [40 CFR 60.7(b) and 40 CFR 60.7(f)]:
 - i. All measurements, including continuous monitoring system and performance testing measurements;
 - ii. All continuous monitoring system performance evaluations;
 - iii. All continuous monitoring system or monitoring device calibration checks;
 - iv. Adjustments and maintenance performed on these systems or devices;
 - v. The occurrence and duration of any startup, shutdown, or malfunction in the operation of the turbine; and
 - vi. Any periods during which the continuous monitoring system or monitoring device is inoperative.
- b. The permittee shall maintain records of the quarterly monitoring analysis of the sulfur content of the natural gas fired in the turbine. [401 KAR 52:020, Section 10]
- c. See **Section D, Source Emission Limitations and Testing Requirements**, **3.c. Specific Recordkeeping Requirements**.

6. Specific Reporting Requirements:

- a. The permittee shall furnish the Administrator written notifications required in 40 CFR 60.7(a).
- b. The permittee shall submit an excess emissions and monitoring systems performance report containing the information required in 40 CFR 60.7(c)(1) through (4), and/or a summary report form in accordance with 40 CFR 60.7(d) to the Administrator on a quarterly basis, if excess emissions are determined, or else semiannually. All reports shall be postmarked by the 30th day following the end of each reporting period. [40 CFR 60.7(c) and 40 CFR 60.7(d)]
 - i. Periods of excess emissions of nitrogen oxides are any 1-hour period during which the average 4-hour rolling average nitrogen oxides emission rate exceeds the emission limit in 40 CFR 60.332(a)(1). [40 CFR 60.334(j)(iii)(A) and U.S.EPA Region IV Determination Letter dated February 1, 1999]
 - ii. Periods of excess emissions of sulfur dioxide are any quarterly period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 percent. [U.S.EPA Region IV Determination Letter dated February 1, 1999]

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

D-3 Heat Recovery Steam Generator (indirect heat exchanger) operated in a combined cycle system (Turbine Exhaust Fired (TEF) mode) or as a steam-generating unit (Fresh Air Fired (FAF) mode) when venting to Main Stack A

Make: Deltak
Model: "Diamond Dino," Rodenhuis & Verloop duct burner
Fuel: Natural gas
Rated Capacity: 262.7 MMBtu/hr higher heating value (HHV) for TEF
310 MMBtu/hr higher heating value (HHV) for FAF
Constructed: March 22, 1999
Controls: Low NO_x Duct Burners

D-4 Heat Recovery Steam Generator (same as above except venting to Main Stack B)

APPLICABLE REGULATIONS:

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

401 KAR 51:220, CAIR NO_x ozone season trading program. See **Section K, Clean Air Interstate Rule (CAIR)**.

401 KAR 59:015, New indirect heat exchangers.

401 KAR 60:005, Section 2(2)(c), 40 C.F.R. 60.40b through 60.49b (Subpart Db), Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.

40 CFR Part 75, Continuous Emission Monitoring.

STATE-ORIGIN REQUIREMENT:

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

1. Operating Limitations:

- a. See Emission Unit RB1 (Rental Boiler) **1. Operating Limitations**, Condition b. for periods when both the Rental Boiler and HRSGs are in operation.
- b. In order to maintain low mass emissions (LME) unit status and eligibility for LME compliance demonstration methodology, the HRSGs shall fire only pipeline quality natural gas. [40 CFR 75.19(a)(1)(i), and U.S. EPA approval letter to use LME methodology dated May 1, 2003]

Compliance Demonstration Methods:

See **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

- c. See **Section D, Source Emission Limitations and Testing Requirements**, **3.a. Operating Limitations**.

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- d. During a startup period or shutdown period, the permittee shall comply with the work practice standards established in 401 KAR 59:015, Section 7. [401 KAR 59:015, Section 7]
 - i. The permittee shall comply with 401 KAR 50:055, Section 2(5); [401 KAR 59:015, Section 7(1)(a)]
 - ii. The frequency and duration of startup periods or shutdown periods shall be minimized by the affected facility; [401 KAR 59:015, Section 7(1)(b)]
 - iii. All reasonable steps shall be taken by the permittee to minimize the impact of emissions on ambient air quality from the affected facility during startup periods and shutdown periods; [401 KAR 59:015, Section 7(1)(c)]
 - iv. The actions, including duration of the startup period, of the permittee during startup and shutdown periods, shall be documented in signed, contemporaneous logs or other relevant evidence; [401 KAR 59:015, Section 7(1)(d)]
 - v. Startups and shutdowns shall be conducted according to either: [401 KAR 59:015, Section 7(1)(e)]
 - (1) The manufacturer's recommended procedures; or [401 KAR 59:015, Section 7(1)(e)1.]
 - (2) Recommended procedures for a unit of similar design, for which manufacturer's recommended procedures are available, as approved by the cabinet based on documentation provided by the permittee. [401 KAR 59:015, Section 7(1)(e)2.]

Compliance Demonstration Method:

Compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements** f.

2. Emission Limitations:

- a. On and after the date on which the initial performance test is completed or is required to be completed, whichever date comes first, the permittee shall not cause to be discharged into the atmosphere from either HRSG any gases that contain nitrogen oxides (expressed as NO₂) in excess of 86 ng/J (0.20 lb/MMBtu) heat input. Only emissions resulting from combustion of natural gas in the HRSGs are subject to this emission standard. The nitrogen oxides standard applies at all times including periods of startup, shutdown, and malfunction. [40 CFR 60.44b(h) and 40 CFR 60.44b(1)(1)]
- b. In order to maintain LME unit status and eligibility for LME compliance demonstration methodology, each HRSG shall emit no more than 50 tons of NO_x per ozone season (from May 1st to September 30th of each year). [40 CFR 75.19(a)(1)(i)(A)(3), and U.S. EPA approval letter to use LME methodology dated May 1, 2003]

Compliance Demonstration Methods:

To demonstrate compliance with **2. Emission Limitations**, Conditions a. and b., the permittee shall determine compliance for each HRSG by using a continuous emissions monitoring system and calculating the emission rate of nitrogen oxides from each HRSG. [401 KAR 52:020, Section 10]

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

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

- d. The opacity of visible emissions shall not exceed twenty (20) percent except as provided below [401 KAR 59:015, Section 4(2)]:
 - i. A maximum of twenty-seven (27) percent opacity shall be allowed for one (1) six (6) minute period in any sixty (60) consecutive minutes. [401 KAR 59:015, Section 4(2)(a)]
 - ii. For emissions caused by building a new fire, emissions during the period required to bring the boiler up to operating conditions shall be allowed, if the method used is recommended by the manufacturer and the time does not exceed the manufacturer's recommendations. [401 KAR 59:015, Section 4(2)(c)]
 - iii. The opacity standard shall not apply during periods of startup and shutdown. [401 KAR 50:055, Section 2(4)]
- e. The permittee shall not cause emissions of gases that contain sulfur dioxide in excess of eight-tenths (0.8) lb/MMBTU actual heat input, based on the total heat input from all fuels burned. [401 KAR 59:015, Section 5(1)(b) and Section 5(3)]

Compliance Demonstration Method:

The permittee is assumed to be in compliance with the 401 KAR 59:015 PM, opacity and SO₂ emission standards when firing natural gas as fuel.

- f. Persons responsible for a source from which hazardous matter or toxic substances may be emitted shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. No owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the cabinet. [401 KAR 63:020, Section 3]

Compliance Demonstration Method:

Based upon the emission rates of toxics and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance with 401 KAR 63:020.

3. Testing Requirements:

Performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet. [401 KAR 50:045, Section 1, and 401 KAR 59:005, Section 2(2)]

4. Specific Monitoring Requirements:

- a. The permittee shall install, calibrate, maintain, and operate CEMS for measuring NO_x and O₂ (or CO₂) emissions discharged to the atmosphere, and shall record the output of the system. [40 CFR 60.48b(b)(1)]
 - i. The CEMS required under 40 CFR 60.48b(b) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns

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

- and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)]
- ii. The 1-hour average NO_x emission rates measured by the continuous NO_x monitor required under 40 CFR 60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2). The 1-hour average shall be calculated using the data points required by 40 CFR 60.13(h)(2). [40 CFR 60.48b(d)]
 - iii. The procedures under 40 CFR 60.13 shall be used for installation, evaluation, and operation of the continuous monitoring systems. The span value for NO_x shall be 500 ppm or an alternative lower value. [40 CFR 60.48b(e)(2) and U.S. EPA approval letter to use LME methodology dated May 1, 2003]
 - iv. When NO_x emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 or Method 7A of 40 CFR 60 Appendix A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)]
- b. The permittee shall install, calibrate, maintain, and operate continuous flow monitors for measuring and recording the flue gas flow through each HRSG Main Stack while turbine exhaust-firing in accordance with Performance Specification 6 of Appendix B of 40 CFR 60. [401 KAR 52:020, Section 10 and U.S. EPA approval letter to use LME methodology dated May 1, 2003]
 - c. The permittee shall install, calibrate, maintain, and operate continuous fuel flow metering systems for measuring and recording the rate of fuel flowing to each HRSG in accordance with the applicable requirements of 40 CFR 75, Section 2.1 of Appendix D.
 - d. See **Section D, Source Emission Limitations and Testing Requirements, 3.b. Specific Monitoring Requirements.**

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain all records for a period of 5 years following the date of such record. [401 KAR 52:020, Section 10]
- b. The permittee shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor for natural gas. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 CFR 60.49b(d)(1)]
- c. The permittee shall maintain records of the turbine exhaust-firing operating hours and the fresh air-firing operating hours for each HRSG. [401 KAR 52:020, Section 10]
- d. The permittee shall maintain the following records for each steam generating unit operating day [40 CFR 60.49b(g)(1)-(10)]:

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

- i. Calendar date;
 - ii. The average hourly NO_x emission rates (expressed as NO₂) (ng/J or lb/MMBtu heat input) measured or predicted;
 - iii. The 30-day average NO_x emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
 - iv. Identification of the steam generating unit operating days when the calculated 30-day average NO_x emission rates are in excess of the NO_x emissions standards under 40 CFR 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;
 - v. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
 - vi. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
 - vii. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
 - viii. Identification of the times when the pollutant concentration exceeded full span of the CEMS;
 - ix. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3;
 - x. Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR 60 Appendix F, Procedure 1.
- e. See **Section D, Source Emission Limitations and Testing Requirements, 3.c. Specific Recordkeeping Requirements**.
- f. The permittee shall keep records of the manufacturer's recommended procedures for startup and shutdown, any instance in which the recommended procedures were not followed, and any corrective action taken. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

- a. The permittee shall submit to the Division the results of the certification tests for the flow monitors and fuel flow meters. [401 KAR 52:020, Section 10]
- b. The permittee shall submit excess emission reports for any calendar quarter during which there are excess emissions from a HRSG. If there are no excess emissions during the calendar quarter, the permittee shall submit a report semiannually stating that no excess emissions occurred during the semiannual reporting period. Periods of excess emissions of nitrogen oxides are defined as any calculated 30-day rolling average NO_x emission rate, as determined under 40 CFR 60.46b(e), that exceeds the applicable emission limits in 40 CFR 60.44b. [401 KAR 52:020, Section 10 and 40 CFR 60.49b(h)]

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

- c. The permittee subject to continuous monitoring requirements for NO_x under 40 CFR 60.48(b) shall submit reports containing the information described in 40 CFR 60.49b(g). [40 CFR 60.49b(i)]
- d. The permittee may submit electronic quarterly reports for NO_x in lieu of submitting the written reports required under 40 CFR 60.69b(h) and (i). The format of each quarterly electronic report shall be coordinated with the permitting authority. The written report(s) shall be postmarked by the 30th day following the end of each calendar quarter. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the permittee, indicating whether compliance with the emission standard and minimum data requirements was achieved during the reporting period. Before submitting reports in the electronic format, the permittee shall coordinate with the permitting authority to obtain an agreement to submit reports in this alternative format. [401 KAR 52:020, Section 10 and 40 CFR 60.49b(v)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**D-5 Emergency Generator (Black start engine for combustion turbine)**

Make: Cummins
Model: QSK60-G6 NR2
Fuel: Diesel
Power Output: 2,922 HP
Manufactured: December 2020
Constructed: April 2021
Controls: None

APPLICABLE REGULATIONS:

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

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

1. Operating Limitations:

- a. An affected source that meets any of the criteria in 40 CFR 63.6590(c)(1) through (7) must meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines. No further requirements apply for such engines under this part. [40 CFR 63.6590(c)]
 - i. A new or reconstructed stationary RICE located at an area source. [40 CFR 63.6590(c)(1)]
- b. The permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. [40 CFR 60.4206]
- c. Beginning October 1, 2010, the permittee must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [40 CFR 60.4207(b)]
- d. The permittee of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, must install a non-resettable hour meter prior to startup of the engine. [40 CFR 60.4209(a)]
- e. If you are a permittee of a stationary CI internal combustion engine and must comply with the emission standards specified in 40 CFR 60, Subpart IIII, the permittee must do all of the following, except as permitted under 40 CFR 60.4211(g): [40 CFR 60.4211(a)]
 - i. Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; [40 CFR 60.4211(a)(1)]

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

- ii. Change only those emission-related settings that are permitted by the manufacturer; and [40 CFR 60.4211(a)(2)]
 - iii. Meet the requirements of 40 CFR part 1068, as they apply. [40 CFR 60.4211(a)(3)]
- f. The permittee must operate the emergency stationary ICE according to the requirements in 40 CFR 60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 CFR 60, Subpart IIII, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 60.4211(f)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in 40 CFR 60.4211(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 60, Subpart IIII and must meet all requirements for non-emergency engines. [40 CFR 60.4211(f)]
- i. There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR 60.4211(f)(1)]
 - ii. You may operate your emergency stationary ICE for any combination of the purposes specified in 40 CFR 60.4211(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 60.4211(f)(2). [40 CFR 60.4211(f)(2)]
 - 1) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [40 CFR 60.4211(f)(2)(i)]
 - iii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4211(f)(3)]
 - 1) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [40 CFR 60.4211(f)(3)(i)]
 - a) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [40 CFR 60.4211(f)(3)(i)(A)]
 - b) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [40 CFR 60.4211(f)(3)(i)(B)]

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

- c) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [40 CFR 60.4211(f)(3)(i)(C)]
- d) The power is provided only to the facility itself or to support the local transmission and distribution system. [40 CFR 60.4211(f)(3)(i)(D)]
- e) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. [40 CFR 60.4211(f)(3)(i)(E)]

2. Emission Limitations:

- a. The permittee of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. [40 CFR 60.4205(b)]
- b. For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power shall be in compliance with 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year, as follows: [40 CFR 60.4202(a)(2)]
 - i. NOX + NMHC: 6.4 g/kW-hr;
 - ii. CO: 3.5 g/kW-hr;
 - iii. PM: 0.20 g/kW-hr.
 - iv. Exhaust opacity from compression-ignition nonroad engines must not exceed:
 - 1) 20 percent during the acceleration mode;
 - 2) 15 percent during the lugging mode; and
 - 3) 50 percent during the peaks in either the acceleration or lugging modes.

Compliance Demonstration Method:

- i. The permittee of a 2007 model year and later stationary CI internal combustion engine that must comply with the emission standards specified in 40 CFR 60.4205(b), must comply by purchasing an engine certified to the emission standards in 40 CFR 60.4205(b), as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g). [40 CFR 60.4211(c)]; or
- ii. If the permittee does not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows: [40 CFR 60.4211(g)]
 - 1) For a stationary CI internal combustion engine greater than 500 HP, the permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must

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

conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer. The permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter, to demonstrate compliance with the applicable emission standards.

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

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

5. Specific Recordkeeping Requirements:

- a. If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the permittee is not required to submit an initial notification. Starting with the model years in table 5 to 40 CFR 60, Subpart IIII, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]
- b. The permittee shall keep monthly records of the amount of fuel used (gallons/month) and the hours of operation of the engine. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

- a. If an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in 40 CFR 60.4211(f)(3)(i), the permittee must submit an annual report according to the requirements in 40 CFR 60.4214(d)(1) through (3) as follows: [40 CFR 60.4214(d)]
 - i. The report must contain the following information: [40 CFR 60.4214(d)(1)]
 - 1) Company name and address where the engine is located. [40 CFR 60.4214(d)(1)(i)]
 - 2) Date of the report and beginning and ending dates of the reporting period. [40 CFR 60.4214(d)(1)(ii)]
 - 3) Engine site rating and model year. [40 CFR 60.4214(d)(1)(iii)]
 - 4) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place. [40 CFR 60.4214(d)(1)(iv)]
 - 5) Hours spent for operation for the purposes specified in 40 CFR 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes

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

specified in 40 CFR 60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine. [40 CFR 60.4214(d)(1)(vii)]

- ii. The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. [40 CFR 60.4214(d)(2)]
 - iii. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4. Beginning on February 26, 2025, submit annual report electronically according to 40 CFR 60.4214(g). [40 CFR 60.4214(d)(3)]
- b. If the permittee is required to submit notifications or reports following the procedure specified in 40 CFR 60.4214(g), you must submit notifications or reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information in the report or notification, you must submit a complete file in the format specified in this subpart, including information claimed to be CBI, to the EPA following the procedures in 40 CFR 60.4214(g)(1) and (2). Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in 40 CFR 60.4214(g). [40 CFR 60.4214(g)]
- c. The permittee shall comply with the reporting requirements in 40 CFR 60.4214(f), (h), (i) and (j) as applicable. [40 CFR 60.4214]
- d. 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 must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

<u>Description</u>	<u>Generally Applicable Regulation</u>
Cogeneration:	
1. Brine Silo	401 KAR 59:010
2. Water treatment chemicals unloading, storage, and use	None
3. Cooling water chemicals unloading, storage, and use	None
4. Natural gas odorant unloading, storage, and use (methyl mercaptan)	None
Facility Wide:	
5. Lube oil storage and use	None
6. Plant maintenance and repair activities	None

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. NO_x, PM and SO₂ emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. COGENERATION PLANT

a. **Operating Limitations:**

In order to preclude applicability of 401 KAR 51:210, *CAIR NO_x annual trading program*, and 40 CFR 60, Subpart Da, *Standards of Performance for Electric Utility Steam Generating Units for which Construction is Commenced After September 19, 1978* to the HRSG, the combined cycle gas turbine shall not supply for sale more than 219,000 MWh electrical output to any utility power distribution system. [401 KAR 52:020, Section 10]

Compliance Demonstration Method:

Compliance with **4.a. Operating Limitations** shall be demonstrated by complying with the applicable requirements in **4.b. Specific Monitoring Requirements** and **4.c. Specific Recordkeeping Requirements**.

b. **Specific Monitoring Requirements:**

The permittee shall determine the Gross Calorific Value of natural gas combusted in the turbine or each HRSG by quarterly sampling using ASTM D1826–88, ASTM D3588–91, ASTM D4891–89, GPA Standard 2172–86 “Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis”, or GPA Standard 2261–90 “Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography”. The fuel sample shall be taken downstream of the sulfur injection. [401 KAR 52:020, Section 10]

c. **Specific Recordkeeping Requirements:**

The permittee shall maintain records of the electrical output supplied for sale to any utility power distribution system, on a monthly and annual basis. [401 KAR 52:020, Section 10]

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

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

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five (5) years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. In accordance with the requirements of 401 KAR 52:020, Section 3(1)h, the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

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

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
8. The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken shall be submitted to the Regional Office listed on the front of this permit. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement does not identify a specific time frame for reporting deviations, prompt reporting, as required by Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, shall be defined as follows:
 - a. For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
 - b. For emissions of any regulated air pollutant, excluding those listed in F.8.a., that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
 - c. All deviations from permit requirements, including those previously reported, shall be included in the semiannual report required by F.6.
9. Pursuant to 401 KAR 52:020, Title V permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.

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

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

Division for Air Quality
Paducah Regional Office
130 Eagle Nest Drive
Paducah, KY 42003

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St. SW
Atlanta, GA 30303-8960

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

SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

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

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

- d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:020, Section 3(1)(c)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

- f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].
- g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- i. All emission limitations and standards contained in this permit shall be enforceable as a practical matter. All emission limitations and standards contained in this permit are enforceable by the U.S. EPA and citizens except for those specifically identified in this permit as state-origin requirements. [Section 1a-15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3) b].
- l. This permit does not convey property rights or exclusive privileges [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.
- n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3) d.].
- o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3) a.].

SECTION G - GENERAL PROVISIONS (CONTINUED)

- p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.
- q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
 - (1) Applicable requirements that are included and specifically identified in this permit; and
 - (2) Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements

- a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six (6) months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
- b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020, Section 8(2)].

3. Permit Revisions

- a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
- b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

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

No construction authorized by this permit (V-24-037).

SECTION G - GENERAL PROVISIONS (CONTINUED)**5. Testing Requirements**

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

6. Acid Rain Program Requirements

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

7. Emergency Provisions

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

SECTION G - GENERAL PROVISIONS (CONTINUED)

- (2) The permitted facility was at the time being properly operated;
 - (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - (4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.1-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
 - (5) This requirement does not relieve the source of other local, state or federal notification requirements.
- b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
- c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

8. Ozone Depleting Substances

- a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
- (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.155.
 - (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156 and 40 CFR 82.157.
 - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION G - GENERAL PROVISIONS (CONTINUED)

9. Risk Management Provisions

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

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None

SECTION J - ACID RAIN

None

SECTION K – CLEAN AIR INTERSTATE RULE (CAIR)

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

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

The facility will not be in the CSAPR emissions trading program based on its continued CSAPR cogeneration exemption. See 40 CR Part 97.4(a)(1)(ii)(C) and 40 CFR 72.6(b)(4).