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

Draft

AIR QUALITY PERMIT

Issued under 401 KAR 52:020

Permittee Name:	**Lightning Renewables, LLC**
Mailing Address:	**210 Helios Way, Floor 6** **Houston, TX 77079**
Source Name:	**Lightning Renewables – Valley View RNG**
Mailing Address:	**9120 Sulphur Road** **Sulphur, KY 40070**
Source Location:	**Co-Located with Valley View Landfill**
Permit:	**V-23-007 R1**
Agency Interest:	**175095**
Activity:	**APE20250002**
Review Type:	**Title V, Construction/Operating**
Source ID:	**21-223-00022**
Regional Office:	**Florence Regional Office** **8020 Veterans Memorial Drive, Suite 110** **Florence, KY 41042** **(859) 525-4923**
County:	**Trimble**
Application Complete Date:	**March 9, 2023**
Issuance Date:	**July 18, 2023**
Revision Date:	
Expiration Date:	**July 18, 2028**

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-23-007	Initial	APE20230001	3/9/2023	7/18/2023	Initial Construction & Operating Permit
V-23-007 R1	Significant Revision	APE20250002	1/24/2026		Revised capacity of EU 01; Revised design of EU 02; Added LFG condensate tanks to Section C; Removed source-wide limits in Section D; Added 40 CFR 60, Subpart Cf references.

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.

Lightning Renewables, LLC, Source ID #: 21-223-00022 (A.I. #175095), and the adjacent Valley View Landfill, Source ID #: 21-223-00005 (A.I. #4059), are considered by the Cabinet and the United States Environmental Protection Agency to be a “single source” in determining applicability under 401 KAR 51:017, Prevention of significant deterioration of air quality (PSD) and 401 KAR 52:020, Title V permits. Each source is subject to 401 KAR 52:020 and will be issued individual Title V operating permits. Pursuant to the respective Title V permits, each permittee is responsible and liable for their own violations unless there is a joint cause for the violations.

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

Emission Unit 01 (EU 01) Renewable Natural Gas (RNG) Plant

Description:

The RNG facility receives LFG from Valley View Landfill's gas collection system. The LFG stream is treated, compressed, and injected into local gas distribution or transmission networks.
Maximum Capacity: 3,200 scfm of treated landfill gas
Controls: Thermal Recuperative Oxidizer (TRO) (C01) and EU02 (C02) as back-up
Construction Commenced: 2026

Emission Unit 02 (EU 02/C02) LFG Flare

Description:

Shrouded candlestick flare for use when EU 01 is not operating or produced gas is off-spec.
Maximum Capacity: 3,200 scfm of landfill gas
Construction Commenced: 2026

APPLICABLE REGULATIONS:

401 KAR 53:010, *Ambient air quality standards*
401 KAR 59:010, *New process operations*, applies to EU 01.
401 KAR 61:036, *Emission guidelines and compliance times for municipal solid waste (MSW) landfills* requiring compliance with **40 CFR 60, Subpart Cf,** *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*
401 KAR 63:002, Section 2(4)(hhh), 40 C.F.R. 63.1930 through 63.1990, Table 1 (Subpart AAAA), *National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills*
401 KAR 63:015, *Flares*, applies to EU 02.
40 CFR 60.18, *General control device and work practice requirements*
40 CFR 63.11, *Control device and work practice requirements*

1. **Operating Limitations:**
   a. ***Operation***. The permittee shall operate the control devices in accordance with the provisions of 40 CFR 63.1958, 63.1960, and 63.1961. [40 CFR 63.1957(a)]

   b. At all times the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR 63.1955(c)]

   c. The permittee shall ensure that all collected gasses sent to the facility are vented to a control system designed and operated in compliance with 40 CFR 63.1959(b)(2)(iii). In the event the control system is not operating: [40 CFR 60.34f; 40 CFR 63.1958(e)(1)]
      i. The gas mover system shall be shut down and all valves in the control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour of the control system not operating; and [40 CFR 63.1958(e)(1)(i)]
      ii. Efforts to repair the control system shall be initiated and completed in a manner such that downtime is kept to a minimum, and the control system shall be returned to operation. [40 CFR 63.1958(e)(1)(ii)]

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

Compliance Demonstration Method:
Where the permittee seeks to demonstrate compliance with the operational standard in 40 CFR 63.1958(e)(1), the provisions of 40 CFR 63, Subpart AAAA apply at all times, including periods of SSM. During periods of SSM, the permittee must comply with the work practice requirement specified in 40 CFR 63.1958(e) in lieu of the compliance provisions in 40 CFR 63.1960. [40 CFR 60.36f; 40 CFR 63.1960(e)(2)]

d. The permittee shall operate the control system at all times when the collected gas is routed to the system. [40 CFR 60.34f; 40 CFR 63.1958(f)]

e. The permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Division which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.1955(c)]

f. Compliance is determined using performance testing, collection system monitoring, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data collected under 40 CFR 63.1961(b)(1), (c)(1), and (d) are used to demonstrate compliance with the operating standards for control systems. If a deviation occurs, the permittee has failed to meet the control device operating standards described in 40 CFR 63, Subpart AAAA and have deviated from the requirements of 40 CFR 63, Subpart AAAA. Compliance with the emissions standards and the operating standards of 40 CFR 63.1958 is required at all times. [40 CFR 63.1964]

g. The annual waste gas heat input to the flare (EU 02) shall not exceed 400,000 MMBtu/yr. [Self-imposed to limit PTE]

Compliance Demonstration:
Refer to **4. Specific Monitoring Requirements (b)** and **5**. **Specific Recordkeeping Requirements (b)**.

2. Emission Limitations:

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

Compliance Demonstration:
Refer to **4. Specific Monitoring Requirements (a)** and **5**. **Specific Recordkeeping Requirements (a)**.

b. For emissions from a control device or stack, the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in 401 KAR 59:010, Appendix A: [401 KAR 59:010, Section 3(2)]
   i. For process weight rates of ≤ 0.5 tons/hour: 2.34 lbs/hr

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

ii. For process weight rates of ≤ 30 tons/hour: $E = 3.59P^{0.62}$
Where:
E = rate of emission in lb/hr; and
P = process weight rate in tons/hr.

Compliance Demonstration:
The permittee is assumed to be in compliance with the mass emission standard based on the maximum process weight rate and emission factors provided in the application.

c. For EU 02, the permittee shall not cause, suffer, or allow the emission into the open air of particulate matter from any flare which is greater than twenty (20) percent opacity for more than three (3) minutes in any one (1) day. [401 KAR 63:015, Section 3]

Compliance Demonstration:
Refer to **4. Specific Monitoring Requirements (a)** and **5**. **Specific Recordkeeping Requirements (a)**.

d. Flares shall be designed for and operated with no visible emissions as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [40 CFR 60.18(c)(1)]

e. Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in appendix A of 40 CFR part 60 shall be used to determine the compliance of flares with the visible emission provisions of 40 CFR 63. The observation period is 2 hours and shall be used according to Method 22. [40 CFR 63.11(b)(4)]

Compliance Demonstration Method:
Refer to **3. Testing Requirements** and **7. Specific Control Equipment Operating Conditions**.

3. Testing Requirements:

a. The permittee shall conduct an initial performance test on the TRO to establish the VOC and HAP reduction efficiency and the minimum combustion chamber temperature within 60 days after achieving the maximum production rate, but not later than 180 days after initial start-up of the RNG plant. During the initial performance test, the permittee shall also determine the H_2S concentration (in ppmv and lb/hr) of the vent gas stream at the outlet of the H_2S removal system using U.S. EPA Method 15/16, ASTM D4084, ASTM D5504 or an alternate method as approved by the Division. This testing shall be repeated once every 5 years. [401 KAR 50:055, Section 2(a)]

b. For the performance test required in 40 CFR 60.33f(c)(2) 40 CFR 63.1959(b)(2)(iii)(B), EPA Method 25 or 25C (EPA Method 25C of 40 CFR 60, appendix A-7, may be used at the inlet only) of 40 CFR 63, appendix A shall be used to determine compliance with the 98 weight-percent efficiency or the 20-ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by 40 CFR 60.38f(d)(2) and 40 CFR 63.1981(d)(2). EPA Method 3, 3A, or 3C of 40 CFR 60, appendix A-7 must be used to determine oxygen for correcting the NMOC

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

concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), EPA Method 25A should be used in place of EPA Method 25. EPA Method 18 may be used in conjunction with EPA Method 25A on a limited basis (compound specific, e.g., methane) or EPA Method 3C may be used to determine methane. The methane as carbon should be subtracted from the EPA Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The permittee must divide the NMOC concentration as carbon by 6 to convert from the C_{NMOC} as carbon to C_{NMOC} as hexane. Equation 4 must be used to calculate efficiency: [40 CFR 60.35f(e); 40 CFR 63.1959(d)]

$$Control\ Efficiency = \left(\frac{NMOC_{in} - NMOC_{out}}{NMOC_{in}}\right)\ (Eq. 4)$$

Where:

$NMOC_{in}$ = Mass of NMOC entering control device.

$NMOC_{out}$ = Mass of NMOC exiting control device.

i. Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8), the permittee must submit the results of the performance tests, including any associated fuel analyses, according to 40 CFR 60.38f(j)(1). [40 CFR 60.35f(e)(1)]

c. For the performance test required in 40 CFR 60.33f(c)(1) and 40 CFR 63.1959(b)(2)(iii)(A), the net heating value of the combusted landfill gas as determined in 40 CFR 60.18(f)(3) and 40 CFR 63.11(b)(6)(ii) is calculated from the concentration of methane in the landfill gas as measured by EPA Method 3C of 40 CFR 60, appendix A. A minimum of three 30-minute EPA Method 3C samples are determined. The measurement of other organic components, hydrogen, and carbon monoxide is not applicable. EPA Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under 40 CFR 60.18(f)(4) and 40 CFR 63.11(b)(7). [40 CFR 60.35f(d); 40 CFR 63.1959(e)]

i. Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8), the permittee must submit the results of the performance tests required by 40 CFR 60.35f(b) or (d), including any associated fuel analyses, according to 40 CFR 60.38f(j)(1). [40 CFR 60.35f(d)(1)]

ii. Within 60 days after the date of completing each performance test (as defined in 40 CFR 63.7), the permittee shall submit the results of the performance tests, including any associated fuel analyses, required by 40 CFR 63.1959(c) or (e) according to 40 CFR 63.1981(l)(1). [40 CFR 63.1959(e)(1)]

d. The performance tests required in 40 CFR 63.1959(b)(2)(iii)(A) and (B), must be conducted under such conditions as the Division specifies to the permittee based on representative performance of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown unless specified by the Division. The permittee may not conduct performance tests during periods of malfunction. The permittee shall record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the permittee shall make available to the Division such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.1959(f)]

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

e. Method 22 of appendix A to 40 CFR 60 shall be used to determine the compliance of flares with the visible emission provisions of 40 CFR part 60, Subpart A and 40 CFR part 63. The observation period shall be 2 hours and shall be used according to Method 22. [40 CFR 60.18(f)(1); 40 CFR 63.11(b)(4)]

f. The net heating value of the gas being combusted in a flare shall be calculated using the following equation. [40 CFR 60.18(f)(3); 40 CFR 63.11(b)(6)(ii)]

$$H_T = K \sum_{i-1}^{n} C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

K = Constant, $1.740 \times 10^{-7} \left(\frac{1}{ppm}\right)\left(\frac{g\ mole}{scm}\right)\left(\frac{MJ}{kcal}\right)$ where the standard temperature for $\left(\frac{g\ mole}{scm}\right)$ is 20°C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946–77 or 90 (Reapproved 1994) (Incorporated by reference as specified in 40 CFR 60.17); and

H_i = Net heat of combustion of sample component i, kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382–76 or 88 or D4809–95 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated.

n = Number of sample components.

g. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18(f)(4); 40 CFR 63.11(b)(7)(i)]

h. The maximum permitted velocity, V_{max}, for flares complying with 40 CFR 60.18(c)(4)(iii) and 40 CFR 63.11(b)(7)(iii) shall be determined by the equation in 40 CFR 60.18(f)(5) and 40 CFR 63.11(b)(7)(iii). [40 CFR 60.18(f)(5); 40 CFR 63.11(b)(7)(iii)]

i. Pursuant to 401 KAR 50:045, Section 1, performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:

a. The permittee shall perform a daily qualitative observation of visible emissions from the flare and the TRO during operation, during daylight hours. Observation of any visible emissions during the daily qualitative observations shall necessitate an opacity determination using U.S. EPA Reference Method 9. [401 KAR 52:020, Section 10]

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

b. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. The monthly hours of operation of the flare and RNG plant;
   ii. The incoming flow of landfill gas to the facility, in MMscf;
   iii. The monthly quantity of waste gas sent to the flare in MMscf;
   iv. The monthly quantity of landfill gas sent to the RNG plant, in MMscf;
   v. The monthly quantity of waste gas sent to the TRO, in MMscf;
   vi. The monthly natural gas usage in the flare and the TRO, in MMscf;
   vii. The monthly and 12-month rolling waste gas heat input to the flare, in MMBtu.

c. The monitoring requirements of 40 CFR 63.1961(b), (c), and (g) apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The permittee is required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. [40 CFR 60.37f; 40 CFR 63.1961(h)]

d. A deviation is defined in 40 CFR 63.1990. For the purposes of the landfill monitoring requirements, deviations include the items in 40 CFR 63.1965(a) and (b). [40 CFR 63.1965]
   i. "Deviation" means any instance in which the permittee: [40 CFR 63.1990]
      1. Fails to meet any requirement or obligation established by 40 CFR 63, Subpart AAAA including but not limited to any emission limit, or operating limit, or work practice requirement; or
      2. Fails to meet any term or condition that is adopted to implement an applicable requirement in 40 CFR 63, Subpart AAAA and that is included in this permit.
   ii. A deviation occurs when the control device operating parameter boundaries described in 40 CFR 63.1983(c)(1) are exceeded. [40 CFR 63.1965(a)]
   iii. A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour. [40 CFR 63.1965(b)]

e. Averages are calculated according to 40 CFR 63.1983(b)(2)(i) for average combustion temperature and 40 CFR 63.1983(c)(1)(i) for 3-hour average combustion temperature for enclosed combustors, except that the data collected during the event listed in 40 CFR 63.1975(a) are not to be included in any average computed under 40 CFR 63, Subpart AAAA. [40 CFR 63.1975]
   i. Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments. [40 CFR 63.1975(a)]

f. Refer to **Section F** for general monitoring requirements.

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5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a log of the qualitative visual observations for the flare and the TRO including: date, time, initials of observer, whether emissions were visible and records of corrective actions taken as a result of visible emissions, and records of any U.S. EPA Reference Method 9 opacity readings performed. [401 KAR 52:020, Section 10]

b. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. The monthly hours of operation of the flare and RNG plant;
   ii. The incoming flow of landfill gas to the facility, in MMscf;
   iii. The monthly quantity of waste gas sent to the flare in MMscf;
   iv. The monthly quantity of landfill gas sent to the RNG plant, in MMscf;
   v. The monthly quantity of waste gas sent to the TRO, in MMscf;
   vi. The monthly natural gas usage in the flare and the TRO, in MMscf;
   vii. The monthly and 12-month rolling waste gas heat input to the flare, in MMBtu.

c. The permittee must keep up-to-date, readily accessible records for the life of the control system equipment of the data listed in 40 CFR 60.39f(b)(1) through (5) and 40 CFR 63.1983(b)(1) through (5) as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal. [40 CFR 60.39f(b); 40 CFR 63.1983(b)]
   i. For the enclosed combustion device (TRO): Where the permittee seeks to demonstrate compliance with 40 CFR 60.33f(c) and 40 CFR 63.1959(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts: [40 CFR 60.39f(b)(2); 40 CFR 63.1983(b)(2)]
      1. The average temperature measured at least every 15 minutes and averaged over the same time period of the performance test. [40 CFR 60.39f(b)(2)(i); 40 CFR 63.1983(b)(2)(i)]
      2. The percent reduction of NMOC determined as specified in 40 CFR 60.33f(c)(2) and 40 CFR 63.1959(b)(2)(iii)(B) achieved by the control device. [40 CFR 60.39f(b)(2)(ii); 40 CFR 63.1983(b)(2)(ii)]
   ii. For the non-enclosed flare (EU 02): Where the permittee seeks to demonstrate compliance with 40 CFR 60.33f(c)(1) and 40 CFR 63.1959(b)(2)(iii)(A) through use of a non-enclosed flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18 and 40 CFR 63.11; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent. [40 CFR 60.39f(b)(4); 40 CFR 63.1983(b)(4)]
   iii. For the landfill gas treatment system: Where the permittee seeks to demonstrate compliance with 40 CFR 60.33f(c)(3) and 40 CFR 63.1959(b)(2) through use of a landfill gas treatment system: [40 CFR 60.39f(b)(5); 40 CFR 63.1983(b)(5)]
      1. ***Bypass records***. Records of the flow of landfill gas to, and bypass of, the treatment system. [40 CFR 60.39f(b)(5)(i); 40 CFR 63.1983(b)(5)(i)]

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

2. ***Site-specific treatment monitoring plan***. The permittee shall prepare a site-specific treatment monitoring plan to include: [40 CFR 60.39f(b)(5)(ii); 40 CFR 63.1983(b)(5)(ii)]
   A. Monitoring records of parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, records should include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. [40 CFR 60.39f(b)(5)(ii)(A); 40 CFR 63.1983(b)(5)(ii)(A)]
   B. Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas. [40 CFR 60.39f(b)(5)(ii)(B); 40 CFR 63.1983(b)(5)(ii)(B)]
   C. Documentation of the monitoring methods and ranges, along with justification for their use. [40 CFR 60.39f(b)(5)(ii)(C); 40 CFR 63.1983(b)(5)(ii)(C)]
   D. List of responsible staff (by job title) for data collection. [40 CFR 60.39f(b)(5)(ii)(D); 40 CFR 63.1983(b)(5)(ii)(D)]
   E. Processes and methods used to collect the necessary data. [40 CFR 60.39f(b)(5)(ii)(E); 40 CFR 63.1983(b)(5)(ii)(E)]
   F. Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems (CMS). [40 CFR 60.39f(b)(5)(ii)(F); 40 CFR 63.1983(b)(5)(ii)(F)]

d. The permittee must keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in 40 CFR 60.37f and 40 CFR 63.1961 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. [40 CFR 60.39f(c); 40 CFR 63.1983(c)]
   i. The following constitute exceedances that must be recorded and reported under 40 CFR 60.38f and 40 CFR 63.1981(h): [40 CFR 60.39f(c)(1); 40 CFR 63.1983(c)(1)]
      1. For the TRO, all 3-hour periods of operation during which the average temperature was more than 28 degrees Celsius (82 degrees Fahrenheit) below the average combustion temperature during the most recent performance test at which compliance with 40 CFR 60.33f(c) and 40 CFR 63.1959(b)(2)(iii) was determined. [40 CFR 60.39f(c)(1)(i); 40 CFR 63.1983(c)(1)(i)]
   ii. The permittee must keep up-to-date, readily accessible continuous records of the indication of flow to the control system and the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under 40 CFR 63.1961(b)(2)(ii), (c)(2)(ii), and (g)(2). [40 CFR 60.39f(c)(2); 40 CFR 63.1983(c)(2)]
   iii. The permittee, seeking to comply with the provisions of 40 CFR 60, Subpart Cf and 40 CFR 63, Subpart AAAA through the use of a non-enclosed flare must keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under 40 CFR 63.1961(c), and up-to-date, readily accessible

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

records of all periods of operation in which the flame or flare pilot flame is absent. [40 CFR 60.39f(c)(4); 40 CFR 63.1983(c)(4)]

iv. Where the permittee seeks to demonstrate compliance with the operational standard in 40 CFR 63.1958(e)(1), the date, time, and duration of each startup and/or shutdown period, recording the periods when the affected source was subject to the standard applicable to startup and shutdown. [40 CFR 63.1983(c)(6)]

v. Where the permittee seeks to demonstrate compliance with the operational standard in 40 CFR 63.1958(e)(1), in the event that an affected unit fails to meet an applicable standard, record the information below: [40 CFR 63.1983(c)(7)]
   1. For each failure record the date, time and duration of each failure and the cause of such events (including unknown cause, if applicable). [40 CFR 63.1983(c)(7)(i)]
   2. For each failure to meet an applicable standard; record and retain a list of the affected sources or equipment. [40 CFR 63.1983(c)(7)(ii)]
   3. Record actions taken to minimize emissions in accordance with the general duty of 40 CFR 63.1955(c) and any corrective actions taken to return the affected unit to its normal or usual manner of operation. [40 CFR 63.1983(c)(7)(iii)]

vi. In lieu of the requirements specified in 40 CFR 63.8(d)(3) the permittee must keep the written procedures required by 40 CFR 63.8(d)(2) on record for the life of the affected source or until the affected source is no longer subject to the provisions of 40 CFR 63, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the permittee shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under 40 CFR 63.8(d)(2). [40 CFR 63.1983(c)(8)]

e. The permittee must keep records of the date upon which the permittee started complying with the provisions in 40 CFR 63.1958, 63.1960, and 63.1961. [40 CFR 60.39f(e)(6)]

f. Any records required to be maintained by 40 CFR 60, Subpart Cf that are submitted electronically via the EPA's CDX may be maintained in electronic format. [40 CFR 60.39f(i)]

g. The permittee must keep records as specified in 40 CFR 63, Subpart AAAA. The permittee must also keep records as specified in the general provisions of 40 CFR part 63 as shown in Table 1 to 40 CFR 63, Subpart AAAA. [40 CFR 63.1983]

h. Any records required to be maintained by 40 CFR 63, Subpart AAAA that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. [40 CFR 63.1983(h)(2)(i)]

i. Refer to **Section F** for general recordkeeping requirements.

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

6. Specific Reporting Requirements:

a. ***Semi-annual report.*** The permittee must submit to the Division semi-annual reports. The permittee must submit the report, following the procedure specified in 40 CFR 63.1981(l). The initial report must be submitted within 180 days of installation and startup of the control system and must include the initial performance test report required under 40 CFR 63.7 of subpart A, as applicable. In the initial report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX. For enclosed combustion devices and flares, reportable exceedances are defined under 40 CFR 63.1983(c). The semi-annual reports must contain the information in 40 CFR 63.1981(h)(1) through (8). [40 CFR 60.38f(h); 40 CFR 63.1981(h)]

i. When the gas control system was not operating under 40 CFR 63.1958(e), including periods of SSM. For each instance, report the date, time, and duration of each exceedance. [40 CFR 63.1981(h)(1)]

1. Number of times the parameters for the site-specific treatment system in 40 CFR 63.1961(g) were exceeded. [40 CFR 63.1981(h)(1)(iii)]

ii. Description and duration of all periods when the gas stream was diverted from the control device or treatment system through a bypass line or the indication of bypass flow as specified under 40 CFR 63.1961. [40 CFR 63.1981(h)(2)]

iii. Description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating. [40 CFR 63.1981(h)(3)]

b. ***Initial performance test report***. The permittee, seeking to comply with 40 CFR 60.33f(c) and 40 CFR 63.1959(b)(2)(iii), must include the information listed in 40 CFR 60.38f(i)(1) through (6) and 40 CFR 63.1981(i)(1) through (6) with the initial performance test report required under 40 CFR 60.8 and 63.7. [40 CFR 60.38f(i); 40 CFR 63.1981(i)]

c. ***Electronic reporting***. The permittee must submit reports electronically according to 40 CFR 60.38f(j)(1) and (2) and 40 CFR 63.1981(l)(1) and (2). [40 CFR 60.38f(j);40 CFR 63.1981(l)]

i. Within 60 days after the date of completing each performance test, the permittee must submit the results of the performance test following the procedures specified in 40 CFR 60.38f(j)(1)(i) through (ii) and 40 CFR 63.1981(l)(1)(i) through (iii). [40 CFR 60.38f(j)(1); 40 CFR 63.1981(l)(1)]

ii. The permittee required to submit reports following the procedure specified in 40 CFR 60.38f(j)(2) must submit reports to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for 40 CFR 60, Subpart Cf or an alternate electronic file format consistent with the XML schema listed on the CEDRI Web site (https://www3.epa.gov/ttn/chief/cedri/index.html). If the reporting form specific to 40 CFR 60, Subpart Cf is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 60.4. Once the form has been available in CEDRI for 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must

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

be submitted by the deadlines specified in 40 CFR 60, Subpart Cf, regardless of the method in which the reports are submitted. [40 CFR 60.38f(j)(2); 40 CFR 63.1981(l)(2)]

d. ***Claims of EPA system outage***. If the permittee is required to electronically submit a report through CEDRI in the EPA's CDX, the permittee may assert a claim of EPA system outage for failure to comply timely with the reporting requirement. To assert a claim of EPA system outage, the permittee shall meet the requirements in 40 CFR 63.1981(m)(1) through (7). [40 CFR 63.1981(m)]

e. ***Claims of force majeure***. If the permittee is required to electronically submit a report through CEDRI in the EPA's CDX, the permittee may assert a claim of force majeure for failure to comply timely with the reporting requirement. To assert a claim of force majeure, the permittee shall meet the requirements in 40 CFR 63.1981(n)(1) through (5). [40 CFR 63.1981(n)]

f. The permittee shall submit a copy of all documentation required to be submitted to U.S. EPA pursuant to 40 CFR 60, Subpart Cf to the Cabinet. [401 KAR 61:036, Section 4]

g. The permittee shall maintain records of the control device vendor specifications until removal. [401 KAR 52:020, Section 10]

h. Refer to **Section F** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. ***Control system***. The permittee must route all the collected gas received by the facility to a control system that complies with the requirements in 40 CFR 60.33f(c)(1) through (4) and either 40 CFR 63.1959(b)(2)(iii)(A), (B), or (C), except as provided in 40 CFR 60.24. [40 CFR 60.33f(c); 40 CFR 63.1959(b)(2)(iii)]

i. A treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-British thermal unit (Btu) gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas shall be controlled according to 40 CFR 60.33f(c)(1) and either 40 CFR 63.1959(b)(2)(iii)(A) or (B). [40 CFR 60.33f(c)(3); 40 CFR 63.1959(b)(2)(iii)(C)]

ii. All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of 40 CFR 60.33f(b) or (c) and 40 CFR 63.1959(b)(2)(iii)(A) or (B). For purposes of 40 CFR 60, Subpart Cf and 40 CFR 63, Subpart AAAA, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of 40 CFR 60.33f(b) or (c) and 40 CFR 63.1959(b)(2)(iii)(A) or (B). [40 CFR 60.33f(c)(4); 40 CFR 63.1959(b)(2)(iii)(D)]

1. A non-enclosed flare designed and operated in accordance with the parameters established in 40 CFR 60.18 and 40 CFR 63.11(b) except as noted in 40 CFR 60.37f(d) and 40 CFR 63.1959(e). [40 CFR 60.33f(c)(1); 40 CFR 63.1959(b)(2)(iii)(A)]

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

2. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 ppmv, dry basis as hexane at 3-percent oxygen. The reduction efficiency or ppmv shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in 40 CFR 60.35f(d) and 40 CFR 63.1959(e). [40 CFR 60.33f(c)(2); 40 CFR 63.1959(b)(2)(iii)(B)]
   A. The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 40 CFR 60.37f and 40 CFR 63.1961(b) through (e); [40 CFR 60.33f(c)(2)(ii); 40 CFR 63.1959(b)(2)(iii)(B)(2)]

b. For the enclosed combustor (TRO), the permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment: [40 CFR 60.37f; 40 CFR 63.1961(b)]
   i. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees Celsius, whichever is greater. [40 CFR 63.1961(b)(1)]
   ii. A device that records flow to the control device and bypass of the control device (if applicable). The permittee shall: [40 CFR 63.1961(b)(2)]
      1. Install, calibrate, and maintain a gas flow rate measuring device that must record the flow to the control device at least every 15 minutes; and [40 CFR 63.1961(b)(2)(i)]
      2. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line. [40 CFR 63.1961(b)(2)(ii)]

c. For the non-enclosed flare (EU 02), the permittee must install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment: [40 CFR 60.37f; 40 CFR 63.1961(c)]
   i. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame; and [40 CFR 63.1961(c)(1)]
   ii. A device that records flow to the flare and bypass of the flare (if applicable). The permittee shall: [40 CFR 63.1961(c)(2)]
      1. Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and [40 CFR 63.1961(c)(2)(i)]
      2. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line. [40 CFR 63.1961(c)(2)(ii)]

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

d. For the landfill gas treatment system, the permittee shall calibrate, maintain, and operate according to the manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system (if applicable). The permittee shall maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in 40 CFR 63.1983(b)(5)(ii). The permittee shall: [40 CFR 60.37f; 40 CFR 63.1961(g)]
   i. Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and [40 CFR 63.1961(g)(1)]
   ii. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line. [40 CFR 63.1961(g)(2)]

e. For the flare, the permittee has the choice of adhering to either the heat content specifications in 40 CFR 60.18(c)(3)(ii) and 40 CFR 63.11(b)(6)(ii) and the maximum tip velocity specifications in 40 CFR 60.18(c)(4) and 40 CFR 63.11(b)(7) or (b)(8), or adhering to the requirements in 40 CFR 60.18(c)(3)(i) and 40 CFR 63.11(b)(6)(1). [40 CFR 60.18(c)(3); 40 CFR 63.11(b)(6)]
   i. Flares shall be used only with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater. The net heating value of the gas being combusted shall be determined by the methods specified in 40 CFR 60.18(f)(3) and 40 CFR 63.11(b)(6)(ii). [40 CFR 60.18(c)(3)(ii); 40 CFR 63.11(b)(6)(ii)]
   ii. Nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18(f)(4) and 40 CFR 63.11(b)(7)(i), less than 18.3 m/sec (60 ft/sec), except as provided in 60.18(c)(4)(ii) and (iii) and 40 CFR 63.11(b)(7)(ii) and (iii). [40 CFR 60.18(c)(4)(i); 40 CFR 63.11(b)(7)(i)
   iii. Nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in 60.18(f)(4) and 40 CFR 63.11(b)(7)(i), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf). [40 CFR 60.18(c)(4)(ii); 40 CFR 63.11(b)(7)(ii)]

f. The permittee shall monitor the flare to ensure that it is operated and maintained in conformance with its design. The permittee shall monitor the flare in accordance with 40 CFR 60, Subpart Cf and 40 CFR 63, Subpart AAAA. [40 CFR 60.18(d); 40 CFR 63.11(b)(1)]

g. The flare shall be operated at all times when emissions may be vented to it. [40 CFR 60.18(e); 40 CFR 60.11(b)(3)]

h. The flare shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18(c)(2); 40 CFR 60.18(f)(2); 40 CFR 63.11(b)(5)]

i. Refer to **SECTION E**.

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

Emission Unit 03 (EU 03) CI Emergency Engine

Description:
Construction Commenced: 2026
Maximum Continuous Rating: 324 HP (242 kW)
Primary Fuel: Diesel
Control Equipment: None

APPLICABLE REGULATIONS:

401 KAR 60:005, Section 2(2)(oooo), 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. The permittee shall meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII, for compression ignition engines. No further requirements apply for such engines under 40 CFR Part 63. [40 CFR 63.6590(c)]

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

c. The permittee shall use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel. [40 CFR 60.4207(b)]

d. If the emergency stationary CI internal combustion engine does not meet the standards applicable to non-emergency engines, the permittee shall install a non-resettable hour meter prior to startup of the engine. [40 CFR 60.4209(a)]

e. The permittee shall do all of the following, except as permitted under 40 CFR 60.4211(g): [40 CFR 60.4211(a)]
   i. Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; [40 CFR 60.4211(a)(1)]
   ii. Change only those emission-related settings that are permitted by the manufacturer; and [40 CFR 60.4211(a)(2)]
   iii. Meet the requirements of 40 CFR part 1068, as they apply. [40 CFR 60.4211(a)(3)]

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

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

40 CFR 60.4211(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 60, Subpart IIII and shall meet all requirements for non-emergency engines. [40 CFR 60.4211(f)]

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

ii. The permittee may operate the emergency stationary ICE for the purpose specified in 40 CFR 60.4211(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 60.4211(f)(3) counts as part of the 100 hours per calendar year 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 permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [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)]

g. If the permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance by keeping a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer. [40 CFR 60.4211(g)(2)]

2. Emission Limitations:

a. The permittee shall 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. [40 CFR 60.4205(b)]

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

Compliance Demonstration Method:
The permittee shall comply with the emission standards specified in 40 CFR 60.4205(b) by purchasing an engine certified to the emission standards in 40 CFR 60.4205(b) for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g). [40 CFR 60.4211(c)]

3. **Testing Requirements:**
Pursuant to 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. **Specific Monitoring Requirements:**
   a. The permittee shall monitor the monthly hours of operation and purpose of operation. [401 KAR 52:020, Section 10]

   b. Refer to **Section F** for general monitoring requirements.

5. **Specific Recordkeeping Requirements:**
   a. If the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]

   b. The permittee shall maintain records of the monthly hours of operation and purpose of operation. [401 KAR 52:020, Section 10]

   c. Refer to **Section F** for general recordkeeping requirements.

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

   b. Refer to **Section F** for general reporting requirements.

SECTION C - INSIGNIFICANT ACTIVITIES

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

Description	Generally Applicable Regulation
1. LFG Condensate Tanks (2)	401 KAR 63:020

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

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

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

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
Florence Regional Office
8020 Veterans Memorial Drive
Florence, KY 41042

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.].

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

SECTION G - GENERAL PROVISIONS (CONTINUED)

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

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, Emission Unit 01 – Renewable Natural Gas (RNG) Plant, Emission Unit 02 – LFG Flare, and Emission Unit 03 – CI Emergency Engine in accordance with the terms and conditions of this permit (V-23-007 R1).

SECTION G - GENERAL PROVISIONS (CONTINUED)

a. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

b. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, notification of the following:
(1) The date when construction commenced.
(2) The date of start-up of the affected facilities listed in this permit.
(3) The date when the maximum production rate specified in the permit application was achieved.

c. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.

d. Pursuant to 401 KAR 50:055, Section 2(1)(a), an owner or operator of any affected facility subject to any standard within the administrative regulations of the Division for Air Quality shall-demonstrate compliance with the applicable standard(s) within sixty (60) days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up of such facility. Pursuant to 401 KAR 52:020, Section 3(3)(c), sources that have not demonstrated compliance within the timeframes prescribed in 401 KAR 50:055, Section 2(1)(a), shall operate the affected facility only for purposes of demonstrating compliance unless authorized under an approved compliance plan or an order of the cabinet.

e. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. Testing must also be conducted in accordance with General Provisions G.5 of this permit.

f. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

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

SECTION G - GENERAL PROVISIONS (CONTINUED)

(60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least thirty (30) days prior to the test.

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

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

6. Acid Rain Program Requirements

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

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

7. Emergency Provisions

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

SECTION G - GENERAL PROVISIONS (CONTINUED)

emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.

(5) This requirement does not relieve the source of other local, state or federal notification requirements.

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

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

8. Ozone Depleting Substances

a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

(1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.

(2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.

(3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.155.

(5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156 and 40 CFR 82.157.

(6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

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

9. Risk Management Provisions

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

This section contains compliance schedule requirements as specified by Section 1c of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26.

1. ***401 KAR 61:036 implementing 40 CFR 60, Subpart Cf, Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills.*** The Division becomes the Administrator for the emission guidelines upon EPA's approval of Kentucky's state plan, which will be published in the Federal Register.