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:	**Ameresco Benson Valley RNG LLC**
Mailing Address:	**111 Speen St., Suite 410** **Framingham, MA 01710**
Source Name:	**Ameresco Benson Valley RNG LLC**
Mailing Address:	**2157 Highway 151** **Frankfort, KY 40601**
Source Location:	**Co-Located with Benson Valley Landfill**
Permit ID:	**V-25-017**
Agency Interest #:	**167923**
Activity ID:	**APE20230003**
Review Type:	**Title V / Synthetic Minor, Operating**
Source ID:	**21-073-00112**
Regional Office:	**Frankfort Regional Office** **300 Sower Boulevard, 1st Floor** **Frankfort, KY 40601** **(502) 563-3358**
County:	**Franklin**
Application Complete Date:	**October 4, 2023**
Issuance Date:	
Expiration Date:	

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

TABLE OF CONTENTS

Permit	Permit Type	Activity#	Complete Date	Issuance Date	Summary of Action
V-25-017	**Initial**	**APE20230003**	**10/4/2023**		**Initial Title V Permit**

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.

Ameresco Benson Valley RNG LLC, Source ID #: 21-073-00112 (A.I. #167923), and the adjacent Benson Valley Landfill, Source ID #: 21-073-00053 (A.I. #1372), 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 **Renewable Natural Gas (RNG) Plant**

Description:

The RNG facility receives landfill gas (LFG) from Benson Valley Landfill. The LFG is treated, compressed, and injected as RNG into local gas distribution or transmission networks. The Thermal Oxidizer combusts waste gases from the LFG to RNG process.

Maximum Heat Input:	17.3 MMBtu/hr
Fuel:	Partially Processed Renewable Natural Gas (PPRNG) with approximately 50% Methane or Natural Gas
Control:	1,600 scfm thermal oxidizer with open flare (EU 02) backup
Control Efficiency:	98% (VOC); 98% (HAPs)
Construction Commenced:	January 2023

Emission Unit 02 **Open Flare**

Description:

Elevated Flare System for combusting LFG during startup or upset conditions and for combusting off-spec treated gas that cannot be injected into the pipeline.

Maximum Rated Capacity:	70 MMBtu/hr (2,300 scfm LFG)
Pilot Heat Input:	150 scf/hr
Fuel:	Natural Gas
Control Efficiency:	98% (VOCs & HAPs)
Construction Commenced:	December 2022

APPLICABLE REGULATIONS:

401 KAR 53:010, *Ambient air quality standards*
401 KAR 59:010, *New process operations*, applicable to EU 01
401 KAR 63:015, *Flares*, applicable to EU 02
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*
40 CFR 63.11, *Control device and work practice requirements*

PRECLUDED REGULATION:

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

1. **Operating Limitations:**
   a. The permittee shall not send more than 614.1 MMscf LFG/off-spec/waste gas to the open flare (EU 02) during any 12-month period. [Self-Imposed to preclude 401 KAR 51:017]

      Compliance Demonstration Method:
      Refer to **4. Specific Monitoring Requirements b.v.** and **5. Specific Recordkeeping Requirements b.v. and c.**

   b. The permittee shall not vent any landfill gas through any process unit vent directly to the ambient air. [401 KAR 52:020, Section 10]

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

c. The requirements of 40 CFR 63, Subpart AAAA shall be met and apply at all times, including during periods of startup, shutdown and malfunction (SSM), and the SSM requirements of the General Provisions of 40 CFR part 63 do not apply. During periods of SSM, the permittee shall comply with the work practice requirements specified in 40 CFR 63.1958(e) in lieu of the compliance provisions in 40 CFR 63.1960. [40 CFR 63.1930(b) and 40 CFR 63.1960(e)(2)]

d. At all times, the permittee shall 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)]

e. The permittee shall operate the system in accordance to 40 CFR 63.1955(c) such that all collected gases received by 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 63.1958(e)(1)]
   i. The gas mover system shall be shut down and all valves in the collection and 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)]

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

g. *Control system.* The permittee shall route all the collected gas received by the facility to a control system that complies with the requirements in either 40 CFR 63.1959(b)(2)(iii)(A), (B), or (C): [40 CFR 63.1959(b)(2)(iii)]
   i. A non-enclosed flare designed and operated in accordance with the parameters established in 40 CFR 63.11(b) except as noted in 40 CFR 63.1959(e); or [40 CFR 63.1959(b)(2)(iii)(A)]
   ii. 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 bases 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 issuance of permit V-25-017 using the test methods specified in 40 CFR 63.1959(e). 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 1961(b) through (e). [40 CFR 63.1959(b)(2)(iii)(B) and 40 CFR 63.1959(b)(2)(iii)(B)(2)]
   iii. 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 either 40 CFR 63.1959(b)(2)(iii)(A) or (B)] [40 CFR 63.1959(b)(2)(iii)(C)]

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

iv. All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of 40 CFR 63.1959(b)(2)(iii)(A) or (B). For purposes of 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 63.1959(b)(2)(iii)(A) or (B). [40 CFR 63.1959(b)(2)(iii)(D)]

Compliance Demonstration Method:

A. 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]

B. A deviation is defined in 40 CFR 63.1990. For the purposes of the landfill monitoring and SSM plan requirements, deviations include the items in 40 CFR 63.1965(a) through (c). [40 CFR 63.1965]
   1) 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)]
   2) 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)]

2. Emission Limitations:

a. For the RNG plant (EU 01), no person shall cause, suffer, allow, or permit any visible emission of particulate matter (PM) which persists for more than three minutes into the open air from the stack which is equal to or greater than twenty percent opacity. [401 KAR 59:010, Section 3(1)(a)]

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

b. For the RNG plant (EU 01), PM emissions shall not exceed 2.34 lb/hr. [401 KAR 59:010, Section 3(2)]

Compliance Demonstration Method:
The RNG plant is assumed to be in compliance with the PM mass emission standard based on the information provided in the application.

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

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

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

d. Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any consecutive 2 hours. [40 CFR 63.11(b)(4)]

Compliance Demonstration Method:
Compliance shall be demonstrated according to **3. Testing Requirements e.**

e. See **Section D – Source Emission Limitations and Testing Requirements** for source-wide emission limitations of volatile organic compounds (VOCs).

3. Testing Requirements:

a. The permittee shall conduct an initial performance test on the thermal oxidizer to establish the VOC and HAP destruction or removal efficiency and the minimum combustion chamber temperature. The permittee shall also determine the H_2S concentration (in ppmv and lb/hr) of the gas stream at the inlet to the thermal oxidizer using U.S. EPA Method 15/16, ASTM D4084, ASTM D5504, or an alternate method as approved by the Division. [401 KAR 50:055, Section 2(2)(a)]
   i. The performance test shall be conducted within 180 days after the issuance of this permit V-25-017. [401 KAR 50:055, Section 2(1)(a)]
   ii. The performance test shall be conducted under normal conditions that are representative of operations that create the highest rate of emissions. [401 KAR 50:045, Section 5(1)]
   iii. If the maximum gas processing rate represents the highest emission rate and a performance test is conducted at less than the maximum processing rate, the permittee shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. [401 KAR 50:045, Section 5(2)]
   iv. The performance test shall consist of at least three test runs. Each test run shall be conducted for such time and under such conditions specified in the applicable test method. [401 KAR 50:045, Section 9(1)]
   v. The permittee shall monitor and record the combustion chamber temperature at least once every 15 minutes during each test run. The average combustion chamber temperature established during the performance test shall be the minimum operating set point of the thermal oxidizer. [401 KAR 50:045, Section 1]
   vi. Subsequent performance testing shall be conducted no later than five years following the most recent performance test approved by the Division. [401 KAR 52:030, Section 10]

b. For the performance test required in 40 CFR 63.1959(b)(2)(iii)(B), EPA Method 25 or 25C (EPA Method 25C of Appendix A-7 to 40 CFR part 60 may be used at the inlet only) of Appendix A of 40 CFR part 63 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 63.1981(d)(2). EPA Method 3, 3A, or 3C of Appendix A-7 to 40 CFR part 60 shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In

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

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 shall divide the NMOC concentration as carbon by 6 to convert from C_{NMOC} as carbon to C_{NMOC} as hexane. Equation 4 shall be used to calculate efficiency: [40 CFR 63.1959(d)]

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

Where:
$NMOC_{in}$ = Mass of NMOC entering control device
$NMOC_{out}$ = Mass NMOC exiting the control device

c. For the performance test required in 40 CFR 63.1959(b)(2)(iii)(A), the net heating value of the combusted landfill gas as determined in 40 CFF 63.11(b)(6)(ii) is calculated from the concentration of methane in the landfill gas as measured by EPA Method 3C of Appendix A to 40 CFR part 60. 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 63.11(b)(7) of 40 CFR 63, Subpart A. 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) and 40 CFR 63.1959(e)(1)]

d. The performance tests required in 40 CFR 63.1959(b)(2)(iii)(A) and (B) shall be conducted under such conditions as the Administrator 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 Administrator. The permittee may not conduct performance tests during periods of malfunction. The permittee shall record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the permittee shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.1959(f)]

e. Test Method 22 in Appendix A of 40 CFR part 60 shall be used to determine compliance of flares with the visible emission provisions of 40 CFR part 63. The observation period is 2 hours and shall be used according to Method 22. [40 CFR 63.11(b)(4)]

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

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

4. Specific Monitoring Requirements:

a. The permittee shall perform a daily qualitative visual observation of the opacity of emissions from the thermal oxidizer (EU 01) and open flare (EU 02) while the unit is operating, if the unit is operational that day. If visible emissions from the stack are observed (not including condensed water in the plume), the permittee shall determine the opacity using U.S. EPA Reference Method 9. In lieu of determining the opacity using U.S. EPA Reference Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume). [401 KAR 52:020, Section 10]

b. The permittee shall monitor the following on a monthly basis: [401 KAR 52:020, Section 10]
   i. Hours of operation of the RNG plant (EU 01);
   ii. Hours of operation of the open flare (EU 02);
   iii. Incoming flow of LFG at the inlet of the RNG facility (in MMscf);
   iv. Amount of LFG/off-spec/waste gas sent to the thermal oxidizer, EU 01 (in MMscf);
   v. Amount of LFG/off-spec/waste gas sent to the open flare, EU 02 (in MMscf); and
   vi. Amount of natural gas combusted in the thermal oxidizer, EU 01, and open flare, EU 02 (in MMscf).

c. For the enclosed combustor (thermal oxidizer, EU 01), the permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment: [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 shall 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 shall 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)]

d. For the open flare (EU 02), the permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment: [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 1961(c)(2)(i)]

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

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 shall 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 1961(c)(2)(ii)]

e. 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 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 shall 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)]

f. 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 63.1961(h)]

g. Averages are calculated according to 40 CFR 63.1983(b)(2)(i) for average combustion temperature and 40 CFR 1983(c)(1)(i) for 3-hour average combustion temperature for enclosed combustors, except that the data collected during monitoring system breakdown, repairs, calibration checks, and zero (low-level) and high-level adjustments are not to be included in any average computed under 40 CFR 63, Subpart AAAA. [40 CFR 63.1975 and 40 CFR 63.1975(a)]

h. Refer to **Section F – Monitoring, Recordkeeping, and Reporting Requirements** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a log of the qualitative visual observations made as specified in **4. Specific Monitoring Requirements a.** including the date, time, initials of observer, whether any emissions were observed (yes/no), records of corrective actions taken as a result of visible emissions, and any U.S. EPA Reference Method 9 readings taken. [401 KAR 52:020, Section 10]

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

b. The permittee shall maintain records of the following on a monthly basis: [401 KAR 52:020, Section 10]
   i. Hours of operation of the RNG plant (EU 01);
   ii. Hours of operation of the open flare (EU 02);
   iii. Incoming flow of LFG at the inlet of the RNG facility (in MMscf);
   iv. Amount of LFG/off-spec/waste gas sent to the thermal oxidizer, EU 01 (in MMscf);
   v. Amount of LFG/off-spec/waste gas sent to the open flare, EU 02 (in MMscf); and
   vi. Amount of natural gas combusted in the thermal oxidizer and flare (in MMscf).

c. The permittee shall maintain records of the amount of LFG/off-spec/waste gas sent to the open flare, EU 02, (in MMscf) on a 12-month rolling total basis by adding each month's total from **5. Specific Recordkeeping Requirements b.v.** to the previous 11 months' total. [401 KAR 52:020, Section 10]

d. The permittee shall maintain 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]

e. The permittee shall keep up-to-date, readily accessible records for the life of the control system equipment of the data listed in 40 CFR 63.1983(b)(1) through (5) as measure during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal. [40 CFR 63.1983(b)]
   i. For the enclosed combustion device (thermal oxidizer): [40 CFR 63.1983(b)(2)]
      1. The average temperature at least every 15 minutes and averaged over the same time period of the performance test. [40 CFR 63.1983(b)(2)(i)]
      2. The percent reduction of NMOC determined as specified in 40 CFR 63.1959(b)(2)(iii)(B) achieved by the control device. [40 CFR 63.1983(b)(2)(ii)]
   ii. For the non-enclosed flare, the flare type (i.e., steam-assisted, air-assisted, or non-assisted), 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 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 63.1983(b)(4)]
   iii. For the landfill gas treatment system: [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 63.1983(b)(5)(i)]
      2. *Site-specific treatment monitoring plan.* The permittee shall prepare a site-specific treatment monitoring plan to include: [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 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

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

analysis for each intended end use of the treated landfill gas. [40 CFR 63.1983(b)(5)(ii)(B)]

C. Documentation of the monitoring methods and ranges, along with justification for their use. [40 CFR 63.1983(b)(5)(ii)(C)]
D. List of responsible staff (by job title) for data collection. [40 CFR 63.1983(b)(5)(ii)(D)]
E. Processes and methods used to collect the necessary data. [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 system (CMS). [40 CFR 63.1983(b)(5)(ii)(F)]

f. The permittee shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in 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 63.1983(c)]
   i. The following constitute exceedances that shall be recorded and reported under 40 CFR 63.1981(h): For the enclosed combustor (thermal oxidizer), 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 63.1959(b)(2)(iii) was determined. [40 CFR 63.1983(c)(1) and 40 CFR 63.1983(c)(1)(i)]
   ii. The permittee shall maintain 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 63.1983(c)(2)]
   iii. For the open flare (EU 02), the permittee shall maintain 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 records of all periods of operation in which the flame or flare pilot flame is absent. [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 this paragraph: [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)]

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

vi. In lieu of the requirements specified in 40 CFR 63.8(d)(3) of 40 CFR 63, Subpart A, the permittee shall maintain 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 part 63, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the permittee shall maintain 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)]

g. Refer to **Section F - Monitoring, Recordkeeping, and Reporting Requirements** for general recordkeeping requirements.

6. Specific Reporting Requirements:

a. *Semi-annual report.* The permittee shall submit to the Administrator 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 V-25-017 permit issuance 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 63.1981(h)]

i. Number of times 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)]

ii. 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)]

iii. 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)]

iv. 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 63.1959(b)(2)(iii) must include the information listed in 40 CFR 63.1981(i)(1) through (6) with the initial performance test report required under 40 CFR 63.7 of 40 CFR 63, Subpart A. [40 CFR 63.1981(i)]

c. *Electronic reporting.* The permittee shall submit reports electronically according to 40 CFR 63.1981(l)(1) and (2). [40 CFR 63.1981(l)]

i. Within 60 days after the date of completing each performance test required by 40 CFR 63, Subpart AAAA, the permittee shall submit the results of the performance test

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

following the procedures specified in 40 CFR 63.1981(l)(1)(i) through (iii). [40 CFR 63.1981(l)(1)]

1. Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert) at the time of the test. Submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's CDX (https://cdx.epa.gov/). The data shall be submitted in a file format generated through the use of the EPA's ERT. Alternatively, the permittee may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. [40 CFR 63.1981(l)(1)(i)]
2. Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test. The results of the performance test shall be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI. [40 CFR 63.1981(l)(1)(ii)]

ii. The permittee shall submit reports to the EPA via CEDRI. CEDRI can be accessed through the EPA's CDX. The permittee shall use the appropriate electronic report in CEDRI for 40 CFR 63, Subpart AAAA or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri). Once the spreadsheet template upload/forms for the reports have been available in CEDRI for 90 days, the permittee shall begin submitting all subsequent reports via CEDRI. The reports shall be submitted by the deadlines specified in 40 CFR 63, Subpart AAAA, regardless of the method in which the reports are submitted. The semi-annual reports shall be electronically reported as a spreadsheet template upload/form to CEDRI. If the reporting forms specific to 40 CFR 63, Subpart AAAA are not available in CEDRI at the time that the reports are due, the permittee shall submit the reports to the Administrator at the appropriate address listed in 40 CFR 63.13 of 40 CFR 63, Subpart A. [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. Refer to **Section F** for general reporting requirements.

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

7. Specific Control Equipment Operating Conditions:

a. The permittee shall operate the treatment system, thermal oxidizer, and/or open flare at all times in which collected gas is routed to the system. [401 KAR 52:020, Section 10]

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

c. The permittee shall install, operate, and maintain each control device according to the manufacturer's specifications. [401 KAR 52:020, Section 10]

d. The thermal oxidizer's average combustion chamber temperature during any 3-hour period shall be maintained within the range established during the most recent performance test approved by the Division. [401 KAR 52:020, Section 10]

e. When using the open flare (EU 02) to comply with 40 CFR Part 63, the permittee shall monitor the open flare to assure that it is operated and maintained in conformance with the design. The permittee shall monitor the open flare according to 40 CFR 63, Subpart AAAA. [40 CFR 63.11(b)(1)]

f. The open flare (EU 02) shall be operated at all times when emissions may be vented to it. [40 CFR 63.11(b)(3)]

g. The open flare (EU 02) 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 63.11(b)(5)]

h. For the open flare (EU 02), the permittee has the choice of adhering to the heat content specifications in 40 CFR 63.11(b)(6)(ii), and the maximum tip velocity specifications in 40 CFR 63.11(b)(7) or (b)(8), or adhering to the requirements in 40 CFR 63.11(b)(6)(i). [40 CFR 63.11(b)(6)]

i. Refer to **Section E – Source Control Equipment Requirements** for general control equipment operating conditions.

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

Emission Unit 03 **Emergency Diesel Generator Engine**

Description:

Caterpillar D250GC EPA Tier 3 Certified

Rated Capacity:	250 kW (335 HP)
Fuel:	Diesel
Maximum Fuel Input:	19.4 gal/hr
Manufacture Date:	2023
Construction Date:	April 2023

APPLICABLE REGULATIONS:

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

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

1. **Operating Limitations:**
   a. 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]

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

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

   d. 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 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. 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

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

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)]

e. The engine shall meet the requirements of 40 CFR Part 63 by meeting the requirements of 40 CFR 60, Subpart IIII, for compression ignition engines. No further requirements apply for this engine under 40 CFR Part 63. [40 CFR 63.6590(c)(1)]

2. Emission Limitations:

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

Compliance Demonstration Method:

A. The permittee must comply 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)]

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

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

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

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

b. The permittee shall monitor the engine's hours of operation and fuel usage (in gallons) on a monthly basis. [401 KAR 52:030, Section 10]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain 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 engine's fuel usage (in gallons) on a monthly basis. [401 KAR 52:030, Section 10]

6. Specific Reporting Requirements:

a. If the emergency stationary CI ICE operates for the purpose specified in 40 CFR 60.4211(f)(3)(i), the permittee must submit an annual report according to the requirements in 40 CFR 60.4214(d)(1) through (3). [40 CFR 60.4214(d)]

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

SECTION C - INSIGNIFICANT ACTIVITIES

At the time of issuance of permit V-25-017, there are no insignificant activities at this source.

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENT

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, 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, Opacity, H_2S, Volatile organic compound (VOC) emissions, combined hazardous air pollutants (HAPs), and toluene 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. The total annual source-wide VOC emissions from all emission units and insignificant activities shall not exceed 90 tons per year based on a consecutive twelve (12) month rolling total. [To preclude 401 KAR 51:017]

   Compliance Demonstration Method:
   The annual VOC emissions shall be calculated by adding monthly source-wide VOC emissions to the previous eleven months' source-wide VOC emissions. The twelve-month rolling total shall be calculated monthly and reported semi-annually (see **Section F – Monitoring, Recordkeeping, and Reporting Requirements**). The permittee shall maintain onsite, available for review by the Division for a minimum of five years, a log of the twelve-month rolling total.

   a. When gas is flowing to the thermal oxidizer, a control efficiency of 0% shall be assumed for all periods during which the combustion chamber temperature of the thermal oxidizer drops below the minimum set point temperature established during the most recent performance test, based on the 24-hour average temperature, excluding periods of startup and shutdown.

   b. Actual monthly VOC emissions shall be calculated using the following:
      (1) For EU 01 and EU 02's waste gas stream, 3,780 ppmv, adjusted for temperature using a molecular weight of 86.18 g/mol (or lb/lb-mol) and a destruction efficiency of 98% as follows:

$$E_{VOC} = \frac{PR\left(\frac{MMscf}{month}\right) \times \frac{3{,}780 m^3 (or\ ft^3)}{10^6 m^3 (or\ ft^3)} \times P_{std} \times 86.18 \frac{g}{mol}}{R \times T_{std}} \times \frac{(100 - 98)}{100}$$

      Where:
      E_{VOC} is the emissions of VOC per month
      PR is the process rate of gas to the thermal oxidizer and/or open flare;
      R is the universal gas constant;
      P_{std} is the standard pressure in units consistent with the gas constant; and
      T_{std} is the standard temperature of the gas in units consistent with the gas constant.
      Note: Unit conversions should be made, as needed.
      Upon completion of the performance test and approval by the Division, the permittee shall use the new emission factor and control efficiency to calculate VOC emissions from the thermal oxidizer and open flare's waste gas stream.

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENT (CONTINUED)

(2) For the open flare's (EU 02) pilot gas stream, the current AP-42, Section 1.4 *Natural Gas Combustion* emission factor shall be used to calculate VOC emissions.
(3) For the emergency generator engine (EU 03), manufacturer's emissions data for HC of 0.17 g/HP-hr (6.46 lb/Mgal) shall be used to calculate the emergency engine's monthly VOC emissions.
(4) The permittee may use a different emission factor to calculate VOC emissions upon Division approval.

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 REQUIREMENT

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 each term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period.
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the

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

permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

f. The certification shall be submitted by January 30th of each year. Annual compliance certifications shall be sent to the following addresses:

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

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

SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements
   a. The permittee shall comply with all conditions of this permit. A 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 the 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 through this permit shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020, Section 8(2)].

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

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

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements
   No construction is authorized by V-25-017.

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)

SECTION G - GENERAL PROVISIONS (CONTINUED)

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 sixty 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 noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other 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 within two (2) working days of the time when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken.
      (5) Notification of the Division does not relieve the source of any other local, state or federal notification requirements.

SECTION G - GENERAL PROVISIONS (CONTINUED)

b. Emergency conditions listed in General Provision 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 82.157.
      (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

N/A

SECTION I - COMPLIANCE SCHEDULE

N/A