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:	**Bituminous Resources, Inc. dba Hopkins County Regional Landfill**
Mailing Address:	**419 Claude Young Road, White Plains, KY 42464**
Source Name:	**Hopkins County Regional Landfill**
Mailing Address:	**419 Claude Young Road White Plains, KY 42464**
Source Location:	**Same as above**
Permit:	**V-18-053 R2**
Agency Interest:	**38541**
Activity:	**APE20240007**
Review Type:	**Title V, Construction / Operating**
Source ID:	**21-107-00155**
Regional Office:	**Owensboro Regional Office 3032 Alvey Park Dr. W., Suite 700 Owensboro, KY 42303 (270) 687-7304**
County:	**Hopkins**
Application Complete Date:	**October 10, 2017**
Issuance Date:	**October 20, 2020**
Revision Date:	
Expiration Date:	**October 20, 2025**

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-18-053	Renewal	APE20170004	10/10/2017	10/20/2020	Change from General permit to individual permit
V-18-053 R1	Significant Revision	APE20230002	3/18/2024	10/4/2024	Addition of EU 008; Update regulatory applicability from 40 CFR 60, Subpart WWW to 40 CFR 63, Subpart AAAA
V-18-053 R2	Significant Revision	APE20240007	3/11/2025		Add an RNG Plant (EU 010), flare (EU 009), & Emergency Generator (EU 011)

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Energy and Environment Cabinet (Cabinet) hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes (KRS) Chapter 224 and regulations promulgated pursuant thereto.

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

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

Definitions: The following definitions apply to all abbreviations and variables used in this permit:

CO	– Carbon monoxide
C_{NMOC}	– Concentration of NMOC, ppm by volume as hexane
Division	– Kentucky Division for Air Quality
HAP	– Hazardous Air Pollutant
H_2S	– Hydrogen Sulfide
HP	– Horse Power
KW	– Kilo Watt
MMBtu/hr	– Million British Thermal Units per hour
MMscf	– Million standard cubic feet
MSW	– Municipal Solid Waste
NO_x	– Nitrogen oxides
PT	– Total particulate matter
PM_{10}	– Particulate matter equal to or smaller than 10 micrometers
PTE	– Potential to Emit
RICE	– Reciprocating Internal Combustion Engines
SCFM	– Standard cubic feet per minute
SI ICE	– Spark Ignition Internal Combustion Engines
SO_2	– Sulfur dioxide
U.S. EPA	– United States Environmental Protection Agency
VMT	– Vehicle Miles Travelled
VOC	– Volatile Organic Compounds

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

Emission Unit 001 - Municipal Solid Waste (MSW) Landfill

Description**:** A MSW landfill that has accepted waste since November 8, 1987, commenced construction, reconstruction, or modification before July 17, 2014, having a design capacity equal to or greater than 2.5 million megagrams by mass or 2.5 million cubic meters by volume, and an NMOC emission rate (Calculated according to 40 CFR 63.1959) more than 50 Mg/yr. This landfill is required to operate a Gas Collection and Control System (GCCS) for capturing and routing landfill gas to the flares and/or the RNG facility.
Permitted Design Capacity: 13,944,000 cubic yards (10,660,953 cubic meters)
Construction commenced: 2005

Emission Unit 005 - Landfill Flare #1

Description: Open Landfill Flare.
Maximum capacity: 1,362 scfm of landfill gas
Construction commenced: 2011

Emission Unit 008 - Landfill Flare #2

Description: Open Landfill Flare.
Maximum capacity: 2,500 scfm of landfill gas
Construction commenced: 2024

Emission Unit 009 - Landfill Flare #3

Description: Open Landfill Flare, for use when produced gas is off-spec or during RNG plant (EU 010) outage.
Maximum capacity: 131 MMBtu/hr (5000 scfm landfill gas; 2453 scfm off-spec gas)
Construction commenced: 2025

Emission Unit 010 - Renewable Natural Gas (RNG) Plant

Description: The RNG facility receives LFG from the landfill gas collection system. The resulting LFG stream is treated, compressed, and injected into local gas distribution or transmission networks.
Maximum Capacity: 5000 scfm of landfill gas
Controls: 21.00 MMBtu/hr regenerative thermal oxidizer
Construction Commenced: 2025

APPLICABLE REGULATIONS:
401 KAR 53:010, *Ambient air quality standards*
401 KAR 59:010, *New process operations*, applies to EU 010

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

401 KAR 63:002, Section 2(4)(hhh), 40 C.F.R. 63.1930 to 63.1990, Table 1 (Subpart AAAA), *National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills*
401 KAR 63:010, *Fugitive emissions*
401 KAR 63:015, *Flares*
40 CFR 61, Subpart M, *National Emission Standard for Asbestos*
40 CFR 63.11, *Control device and work practice requirements*

1. **Operating Limitations**:
   a. The collection and control system design plan may include for approval collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions, as provided in 40 CFR 63.1981(d)(2). [40 CFR 63.1955(a)]

   b. 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)]

   c. ***Operation***. The permittee shall operate the collection and control device in accordance with the provisions of 40 CFR 63.1958, 63.1960, and 63.1961. [40 CFR 63.1957(a)]

   d. The permittee shall operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for: [40 CFR 63.1958(a)]
      i. 5 years or more if active; or [40 CFR 63.1958(a)(1)]
      ii. 2 years or more if closed or at final grade. [40 CFR 63.1958(a)(2)]

      Compliance Demonstration Method:
      For purposes of compliance with 40 CFR 63.1958(a), the permittee must place each well or design component as specified in the approved design plan as provided in 40 CFR 63.1981(d). Each well must be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of: [40 CFR 63.1960(b)]
      A. 5 years or more if active; or [40 CFR 63.1960(b)(1)]
      B. 2 years or more if closed or at final grade. [40 CFR 63.1960(b)(2)]

   e. The permittee shall operate the collection system with negative pressure at each wellhead except under the following conditions: [40 CFR 63.1958(b)]
      i. A fire or increased well temperature. The permittee must record instances when positive pressure occurs in efforts to avoid a fire. These records must be submitted with the semi-annual reports as provided in 40 CFR 63.1981(h); [40 CFR 63.1958(b)(1)]
      ii. Use of a geomembrane or synthetic cover. The permittee must develop acceptable pressure limits in the design plan; [40 CFR 63.1958(b)(2)]

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

iii. A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes must be approved by the Division as specified in 40 CFR 63.1981(d)(2); [40 CFR 63.1958(b)(3)]

Compliance Demonstration Method:
For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with 40 CFR 63.1959(b)(2)(ii)(B)(3), the permittee must measure gauge pressure in the gas collection header applied to each individual well monthly. Any attempted corrective measure must not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Division for approval. If a positive pressure exists, action must be initiated to correct the exceedance within 5 days, except for the three conditions allowed under 40 CFR 63.1958(b). [40 CFR 63.1960(a)(3)(i)]

A. If negative pressure cannot be achieved without excess air infiltration within 15 days of the first measurement of positive pressure, the permittee must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after positive pressure was first measured. The permittee must keep records according to 40 CFR 63.1983(e)(3). [40 CFR 63.1960(a)(3)(i)(A)]
B. If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the permittee must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the positive pressure measurement. The permittee must submit the items listed in 40 CFR 63.1981(h)(7) as part of the next semi-annual report. The permittee must keep records according to 40 CFR 63.1983(e)(4). [40 CFR 63.1960(a)(3)(i)(B)]
C. If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the permittee must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Division, according to 40 CFR 63.1981(j). The permittee must keep records according to 40 CFR 63.1983(e)(5). [40 CFR 63.1960(a)(3)(i)(C)]

f. The permittee shall: [40 CFR 63.1958(c)]
   i. Operate each interior wellhead in the collection system with a landfill gas temperature less than 62.8 degrees Celsius (145 degrees Fahrenheit). [40 CFR 63.1958(c)(1)]
   ii. The permittee may establish a higher operating temperature value at a particular well. A higher operating value demonstration must be submitted to the Division for approval and must include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration must satisfy both criteria in order to be approved (i.e., neither causing fires nor killing methanogens is acceptable). [40 CFR 63.1958(c)(2)]

Compliance Demonstration Method:
A. Where the permittee seeks to demonstrate compliance with the temperature operational standard in 40 CFR 63.1958(c): [40 CFR 63.1960(a)(4)]
   1) The permittee must monitor each well monthly for temperature for the purpose of identifying whether excess air infiltration exists. If a well exceeds the operating parameter for temperature as provided in 40 CFR 63.1958(c)(1), action must be

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

initiated to correct the exceedance within 5 days. Any attempted corrective measure must not cause exceedances of other operational or performance standards. [40 CFR 63.1960(a)(4)(i)]

I. If a landfill gas temperature less than or equal to 62.8 degrees Celsius (145 degrees Fahrenheit) cannot be achieved within 15 days of the first measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit), the permittee must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after a landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) was first measured. The permittee must keep records according to 40 CFR 63.1983(e)(3). [40 CFR 63.1960(a)(4)(i)(A)]

II. If corrective actions cannot be fully implemented within 60 days following the temperature measurement for which the root cause analysis was required, the permittee must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit). The permittee must submit the items listed in 40 CFR 63.1981(h)(7) as part of the next semi-annual report. The permittee must keep records according to 40 CFR 63.1983(e)(4). [40 CFR 63.1960(a)(4)(i)(B)]

III. If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the permittee must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Division, according to 40 CFR 63.1981(h)(7) and (j). The permittee must keep records according to 40 CFR 63.1983(e)(5). [40 CFR 63.1960(a)(4)(i)(C)]

IV. If a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7 degrees Celsius (170 degrees Fahrenheit) and the carbon monoxide concentration measured, according to the procedures in 40 CFR 63.1961(a)(5)(vi) is greater than or equal to 1,000 ppmv the corrective action(s) for the wellhead temperature standard (62.8 degrees Celsius or 145 degrees Fahrenheit) must be completed within 15 days. [40 CFR 63.1960(a)(4)(i)(D)]

B. Refer to **4. Specific Monitoring Requirements (d)(iii)** through **(v), 5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements.**

g. The permittee shall operate the system in accordance with 40 CFR 63.1955(c) such that all collected gases are vented to a control system designed and operated in compliance with 40 CFR 63.1959(b)(2)(iii). In the event the collection or control system is not operating: [40 CFR 63.1958(e)(1)]

i. The gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within 1 hour of the collection or control system not operating; and [40 CFR 63.1958(e)(1)(i)]

ii. Efforts to repair the collection or control system must be initiated and completed in a manner such that downtime is kept to a minimum, and the collection and control system must be returned to operation. [40 CFR 63.1958(e)(1)(ii)]

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,

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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 63.1960(e)(2)]

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

i. ***Collection system.*** The permittee shall install and start up a collection and control system that captures the gas generated within the landfill as required by 40 CFR 63.1959(b)(2)(ii)(B) and 40 CFR 63.1959(b)(2)(iii). [40 CFR 63.1959(b)(2)(ii)]

j. ***Active.*** An active collection system must: [40 CFR 63.1959(b)(2)(ii)(B)]
   i. Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control system equipment. [40 CFR 63.1959(b)(2)(ii)(B)(1)]
   ii. Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active; or 2 years or more if closed or at final grade. [40 CFR 63.1959(b)(2)(ii)(B)(2)]
   iii. Collect gas at a sufficient extraction rate. [40 CFR 63.1959(b)(2)(ii)(B)(3)]
   iv. Be designed to minimize off-site migration of subsurface gas. [40 CFR 63.1959(b)(2)(ii)(B)(4)]

Compliance Demonstration Method:

A. Except as provided in 40 CFR 63.1981(d)(2), the specified methods in 40 CFR 63.1960(a)(1) through (5) must be used to determine whether the gas collection system is in compliance with 40 CFR 63.1959(b)(2)(ii). [40 CFR 63.1960(a)]
   1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with 40 CFR 63.1959(b)(2)(ii)(C)(1), either Equation 5 or Equation 6 must be used. The permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Division. The methane generation rate constant (k) and methane generation potential (L_o) kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP–42) or other site-specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in 40 CFR 63.1959(a)(4), the value of k determined from the test must be used. A value of no more than 15 years must be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure. [40 CFR 63.1960(a)(1)]
      I. For sites with unknown year-to-year solid waste acceptance rate: [40 CFR 63.1960(a)(1)(i)]

$$Q_m = 2L_oR(e^{-kc} - e^{-kt})$$

Where:

Q_m= Maximum expected gas generation flow rate, m^3/yr.
L_o = Methane generation potential, m^3/Mg solid waste.
R = Average annual acceptance rate, Mg/yr.
k = Methane generation rate constant, $year^{-1}$.
t = Age of the landfill at equipment installation plus the time the permittee intends to use the gas mover equipment or active life of the landfill,

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

whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years.

c = Time since closure, years (for an active landfill c = 0 and $e^{-kc} = 1$).

2 = Constant.

II. For sites with known year-to-year solid waste acceptance rate: [40 CFR 63.1960(a)(1)(ii)]

$$Q_M = \sum_{i=1}^{n} 2kL_oM_i(e^{-kt_i})$$

Where:

Q_M= Maximum expected gas generation flow rate, m^3/yr.

k = Methane generation rate constant, $year^{-1}$.

L_o = Methane generation potential, m^3/Mg solid waste.

M_i= Mass of solid waste in the i^{th} section, Mg.

t_i = age of the i^{th} section, years.

III. Actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, Equation 5 or Equation 6 in 40 CFR 63.1960(a)(1)(i) and (ii). If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using Equation 5 or Equation 6 in 40 CFR 60.1960(a)(1)(i) or (ii) or other methods must be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment. [40 CFR 63.1960(a)(1)(iii)]

2) For the purposes of determining sufficient density of gas collectors for compliance with 40 CFR 63.1959(b)(2)(ii)(B)(2), the permittee must design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Division, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards. [40 CFR 63.1960(a)(2)]

3) If the permittee seeks to demonstrate compliance with 40 CFR 63.1959(b)(2)(ii)(B)(4) through the use of a collection system not conforming to the specifications provided in 40 CFR 63.1962, the permittee must provide information satisfactory to the Division as specified in 40 CFR 63.1981(d)(3) demonstrating that off-site migration is being controlled. [40 CFR 63.1960(a)(5)]

B. Refer to **4. Specific Monitoring Requirements (d), 5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements.**

k. The permittee must site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Division as provided in 40 CFR 63.1981(d)(2) and (3). [40 CFR 63.1962(a)]

i. The collection devices within the interior must be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues must be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, resistance to the refuse decomposition heat, and ability to isolate

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

individual components or sections for repair or troubleshooting without shutting down entire collection system. [40 CFR 63.1962(a)(1)]

ii. The sufficient density of gas collection devices determined in 40 CFR 63.1962(a)(1) must address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior. [40 CFR 63.1962(a)(2)]

iii. The placement of gas collection devices determined in 40 CFR 63.1962(a)(1) must control all gas producing areas, except as provided by 40 CFR 63.1962(a)(3)(i) and (ii). [40 CFR 63.1962(a)(3)]

1. Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under 40 CFR 63.1983(d). The documentation must provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and must be provided to the Division upon request. [40 CFR 63.1962(a)(3)(i)]
2. Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material must be documented and provided to the Division upon request. A separate NMOC emissions estimate must be made for each section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill. [40 CFR 63.1962(a)(3)(ii)]
   A) The NMOC emissions from each section proposed for exclusion must be computed using Equation 7: [40 CFR 63.1962(a)(3)(ii)(A)]

$$Q_i = 2kL_oM_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

Where:
Q_i = NMOC emission rate from the ith section, Mg/yr.
k = Methane generation rate constant, year^{-1}.
L_o = Methane generation potential, m^3/Mg solid waste.
M_i = Mass of the degradable solid waste in the ith section, Mg.
t_i = Age of the solid waste in the ith section, years.
C_{NMOC} = Concentration of nonmethane organic compounds, ppmv.
3.6×10^{-9} = Conversion factor.

   B) If the permittee is proposing to exclude, or cease gas collection and control from, nonproductive physically separated (e.g., separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically separated closed area must be computed using either Equation 3 in 40 CFR 63.1959(c) or Equation 7 in 40 CFR 63.1962(a)(3)(ii)(A). [40 CFR 63.1962(a)(3)(ii)(B)]
3. The values for k and C_{NMOC} determined in field testing must be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, L_o, and C_{NMOC} provided in 40 CFR 63.1959(a)(1) or the alternative values from 40 CFR 63.1959(a)(5) must be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating

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

emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in 40 CFR 63.1962(a)(3)(i). [40 CFR 63.1962(a)(3)(iii)]

l. The permittee must construct the gas collection devices using the following equipment or procedures: [40 CFR 63.1962(b)]
   i. The landfill gas extraction components must be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: Convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system must extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors must be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations must be situated with regard to the need to prevent excessive air infiltration. [40 CFR 63.1962(b)(1)]
   ii. Vertical wells must be placed so as not to endanger underlying liners and must address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors must be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices must be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations. [40 CFR 63.1962(b)(2)]
   iii. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly must include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices must be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness. [40 CFR 63.1962(b)(3)]

m. The permittee must convey the landfill gas to a control system in compliance with 40 CFR 63.1959(b)(2)(iii) through the collection header pipe(s). The gas mover equipment must be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures: [40 CFR 63.1962(c)]
   i. For existing collection systems, the flow data must be used to project the maximum flow rate. If no flow data exist, the procedures in 40 CFR 63.1962(c)(2) must be used. [40 CFR 63.1962(c)(1)]
   ii. For new collection systems, the maximum flow rate must be in accordance with 40 CFR 63.1960(a)(1). [40 CFR 63.1962(c)(2)]

n. 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]

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

o. 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) 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)]

p. At the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall: [40 CFR 61.154(c)]
   i. Be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, or [40 CFR 61.154(c)(1)]
   ii. Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the Division. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent. [40 CFR 61.154(c)(2)]

q. The permittee shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished; or a road to be used without taking reasonable precaution to prevent particulate matter from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]
   i. Use, if possible, of water or chemicals for control of dust; [401 KAR 63:010, Section 3(1)(a)]
   ii. Application and maintenance of asphalt, oil, water, or suitable chemicals on surfaces which can create airborne dusts; [401 KAR 63:010, Section 3(1)(b)]
   iii. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations; [401 KAR 63:010, Section 3(1)(c)]
   iv. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; [401 KAR 63:010, Section 3(1)(d)]

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

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

r. The permittee shall not add liquid other than leachate (leachate includes landfill gas condensate) in a controlled fashion into the waste mass (often in combination with recirculating leachate) to reach a minimum average moisture content of at least 40 percent by weight to accelerate or enhance the anaerobic (without oxygen) biodegradation of the waste. [401 KAR 52:020, Section 10]

s. If the permittee receives (From the Division of Waste Management) an increase in the permitted volume design capacity of the landfill by either lateral or vertical expansion based on its permitted design capacity as of July 17, 2014, the permittee shall submit an application to the Division incorporating into the permit the requirements of 40 CFR 60, Subpart XXX with a specified date that construction on the lateral or vertical expansion is expected to occur. This application shall be submitted no less than 180 days prior to the specified construction date. Pursuant to 40 CFR 60, Subpart XXX, modification does not occur until the permittee commences construction on the lateral or vertical expansion.

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

2. Emission Limitations:

a. The permittee shall not cause, suffer, or allow visible fugitive dust emissions beyond the lot line of the property on which the emissions originate, as determined by Reference Method 22 of Appendix A in 40 C.F.R. Part 60, for: [401 KAR 63:010, Section 3(2)]
   i. More than five (5) minutes of emission time during any sixty (60) minute observation period; or [401 KAR 63:010, Section 3(2)(a)]
   ii. More than twenty (20) minutes of emission time during any twenty-four (24) hour period. [401 KAR 63:010, Section 3(2)(b)]

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

b. 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 (c)** and **7. Specific Control Equipment Operating Conditions**.

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

c. 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 Method:
Refer to **4. Specific Monitoring Requirements (g)** and **5**. **Specific Recordkeeping Requirements (r).**

d. The permittee shall: [40 CFR 63.1958(d)]
   i. Operate the collection system so that the methane concentration is less than 500 parts per million (ppm) above background at the surface of the landfill. To determine if this level is exceeded, the permittee must conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The permittee may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan must be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing. [40 CFR 63.1958(d)(1)]
   ii. The permittee must: [40 CFR 63.1958(d)(2)]
      1. Conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 40 CFR 63.1960(d). [40 CFR 63.1958(d)(2)(i)]
      2. Conduct surface testing at all cover penetrations. Thus, the permittee must monitor any cover penetrations that are within an area of the landfill where waste has been placed and a gas collection system is required. [40 CFR 63.1958(d)(2)(ii)]
      3. Determine the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. [40 CFR 63.1958(d)(2)(iii)]

Compliance Demonstration Method:
A. Where the permittee seeks to demonstrate compliance with the 500-ppm surface methane operational standard in 40 CFR 63.1958(d), the permittee must monitor surface concentrations of methane according to the procedures in 40 CFR 63.1960(c) and the instrument specifications in 40 CFR 63.1960(d). If the permittee is complying with the 500-ppm surface methane operational standard in 40 CFR 63.1958(d)(2), for location, the permittee must determine the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters and the coordinates must be in decimal degrees with at least five decimal places. In the semi-annual report in 40 CFR 63.1981(h), the permittee must report the location of each exceedance of the 500-ppm methane concentration as provided in 40 CFR 63.1958(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. [40 CFR 63.1961(f)]
B. Refer to **4. Specific Monitoring Requirements (a)** through **(c), 5**. **Specific Recordkeeping Requirements,** and **6. Specific Reporting Requirements (h)** and **(q)**.

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

e. For EU 010, 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 Method:
Refer to **4. Specific Monitoring Requirements (g)** and **5**. **Specific Recordkeeping Requirements (r)**.

f. For EU 010, 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 2.34 lbs/hr. [401 KAR 59:010, Section 3(2)]

Compliance Demonstration Method:
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.

3. Testing Requirements:

a. For the performance test required in 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 63.1981(d)(2). EPA Method 3, 3A, or 3C of 40 CFR 60, appendix A-7 shall be used to determine oxygen for correcting the NMOC 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 shall divide the NMOC concentration as carbon by 6 to convert from the C_{NMOC} as carbon to C_{NMOC} as hexane. Equation 4 shall be used to calculate efficiency: [40 CFR 63.1959(d)]

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

Where:

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

b. 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 CFR 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 of 40 CFR 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. Method 3C may be used to determine the landfill gas

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

molecular weight for calculating the flare gas exit velocity under 40 CFR 63.11(b)(7). [40 CFR 63.1959(e)]

i. Within 60 days after the date of completing each performance test (as defined in 40 CFR 63.7), the permittee must 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)]

c. The performance tests required in 40 CFR 63.1959(b)(2)(iii)(A) 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 must 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)]

d. 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 60, Subpart A. The observation period shall be 2 hours and shall be used according to Method 22. [40 CFR 63.11(b)(4)]

e. The net heating value of the gas being combusted in a flare shall be calculated using the following equation. [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.

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

f. 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 63.11(b)(7)(i)]

g. The maximum permitted velocity, V_{max}, for flares complying with 40 CFR 63.11(b)(7)(iii) shall be determined by the equation in 40 CFR 63.11(b)(7)(iii). [40 CFR 63.11(b)(7)(iii)]

h. To obtain site-specific H_2S emission data, the permittee shall annually collect and test at least three samples from the common header pipe analytically using U.S. EPA Method 15/16, ASTM D4084, ASTM D5504 or an alternate method as approved by the Division. Copies of test results shall be included in semi-annual reports. The first annual test shall be performed no more than 1 year after the previous analytical H_2S test. Refer to **SECTION F.** [401 KAR 50:045, Section 1]
   i. With the test protocol submitted for the H_2S testing, the permittee shall also include the following information:
      1. A map of the current wellfield;
      2. Information regarding hold times for the samples;
         A) For samples collected in a tedlar bag, the sample must be analyzed no more than 24 hours after the sample collection time.
         B) For samples collected in a Summa canister, the sample must be analyzed no more than 7 days after the sample collection time.
      3. Information regarding leak check procedures that will be performed on-site.
   ii. The sample location on the common header pipe must be before any gas moving, condensate removal, or treatment system equipment.

i. The permittee shall conduct an initial performance test on the thermal oxidizer for EU 010 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 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. This testing shall be repeated once every 5 years. [401 KAR 50:055, Section 2(a)]

j. 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. If monitoring demonstrates that the operational requirements in 40 CFR 63.1958(b), (c), or (d) are not met, corrective action must be taken as specified in 40 CFR 63.1960(a)(3) and (a)(5) or 40 CFR 63.1960(c). If corrective actions are taken as specified in 40 CFR 63.1960, the monitored exceedance is not a deviation of the operational requirements in 40 CFR 63.1958. [40 CFR 63.1958(g)]

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

b. The following procedures must be used for compliance with the surface methane operational standard as provided in 40 CFR 63.1958(d). [40 CFR 63.1960(c)]
   i. After installation and startup of the gas collection system, the permittee must monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 40 CFR 63.1960(d). [40 CFR 63.1960(c)(1)]
   ii. The background concentration must be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells. [40 CFR 63.1960(c)(2)]
   iii. Surface emission monitoring must be performed in accordance with section 8.3.1 of EPA Method 21 of appendix A–7 of 40 CFR 60, except that the probe inlet must be placed within 5 to 10 centimeters of the ground. Monitoring must be performed during typical meteorological conditions. [40 CFR 63.1960(c)(3)]
   iv. Any reading of 500 ppm or more above background at any location must be recorded as a monitored exceedance and the actions specified in 40 CFR 63.1960(c)(4)(i) through (v). As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of 40 CFR 63.1958(d). [40 CFR 63.1960(c)(4)]
      1. The location of each monitored exceedance must be marked and the location and concentration recorded. The location must be recorded using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. [40 CFR 63.1960(c)(4)(i)]
      2. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance must be made and the location must be re-monitored within 10 days of detecting the exceedance. [40 CFR 63.1960(c)(4)(ii)]
      3. If the re-monitoring of the location shows a second exceedance, additional corrective action must be taken and the location must be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in 40 CFR 63.1960(c)(4)(v) must be taken, and no further monitoring of that location is required until the action specified in 40 CFR 63.1960(c)(4)(v) has been taken. [40 CFR 63.1960(c)(4)(iii)]
      4. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in 40 CFR 63.1960(c)(4)(ii) or (iii) must be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in 40 CFR 63.1960(c)(4)(iii) or (v) must be taken. [40 CFR 63.1960(c)(4)(iv)]
      5. For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device must be installed within 120 days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes

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

or control device, and a corresponding timeline for installation may be submitted to the Division for approval. [40 CFR 63.1960(c)(4)(v)]

v. The owner or operator must implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis. [40 CFR 63.1960(c)(5)]

c. For the provisions in 40 CFR 63.1960(c), the permittee must comply with the following instrumentation specifications and procedures for surface emission monitoring devices: [40 CFR 63.1960(d)]
   i. The portable analyzer must meet the instrument specifications provided in section 6 of EPA Method 21 of appendix A of 40 CFR 60, except that "methane" replaces all references to "VOC". [40 CFR 63.1960(d)(1)]
   ii. The calibration gas must be methane, diluted to a nominal concentration of 500 ppm in air. [40 CFR 63.1960(d)(2)]
   iii. To meet the performance evaluation requirements in section 8.1 of EPA Method 21 of appendix A of 40 CFR 60, the instrument evaluation procedures of section 8.1 of EPA Method 21 of appendix A of 40 CFR 60 must be used. [40 CFR 63.1960(d)(3)]
   iv. The calibration procedures provided in sections 8 and 10 of EPA Method 21 of appendix A of 40 CFR 60 must be followed immediately before commencing a surface monitoring survey. [40 CFR 63.1960(d)(4)]

d. Except as provided in 40 CFR 63.1981(d)(2), the permittee must install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and: [40 CFR 63.1961(a)]
   i. Measure the gauge pressure in the gas collection header on a monthly basis as provided in 40 CFR 63.1960(a)(3); and [40 CFR 63.1961(a)(1)]
   ii. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows: [40 CFR 63.1961(a)(2)]
      1. The nitrogen level must be determined using EPA Method 3C of appendix A–2 to 40 CFR 60, unless an alternative test method is established as allowed by 40 CFR 63.1981(d)(2). [40 CFR 63.1961(a)(2)(i)]
      2. Unless an alternative test method is established as allowed by 40 CFR 63.1981(d)(2), the oxygen level must be determined by an oxygen meter using EPA Method 3A or 3C of appendix A–2 to 40 CFR 60 or ASTM D6522–11 (incorporated by reference, see 40 CFR 63.14). Determine the oxygen level by an oxygen meter using EPA Method 3A or 3C of appendix A–2 to 40 CFR 60 or ASTM D6522–11 (if sample location is prior to combustion) except that: [40 CFR 63.1961(a)(2)(ii)]
         A. The span must be set between 10- and 12-percent oxygen; [40 CFR 63.1961(a)(2)(ii)(A)]
         B. A data recorder is not required; [40 CFR 63.1961(a)(2)(ii)(B)]
         C. Only two calibration gases are required, a zero and span; [40 CFR 63.1961(a)(2)(ii)(C)]
         D. A calibration error check is not required; and [40 CFR 63.1961(a)(2)(ii)(D)]
         E. The allowable sample bias, zero drift, and calibration drift are ±10 percent. [40 CFR 63.1961(a)(2)(ii)(E)]

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

3. A portable gas composition analyzer may be used to monitor the oxygen levels provided: [40 CFR 63.1961(a)(2)(iii)]
   A. The analyzer is calibrated; and [40 CFR 63.1961(a)(2)(iii)(A)]
   B. The analyzer meets all quality assurance and quality control requirements for EPA Method 3A of appendix A–2 to 40 CFR 60 or ASTM D6522–11 (incorporated by reference, see 40 CFR 63.14). [40 CFR 63.1961(a)(2)(iii)(B)]

iii. Where the permittee seeks to demonstrate compliance with the operational standard for temperature in 40 CFR 63.1958(c)(1), monitor temperature of the landfill gas on a monthly basis as provided in 40 CFR 63.1960(a)(4). The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of EPA Method 2 of appendix A–1 to 40 CFR 60. Keep records specified in 40 CFR 63.1983(e). [40 CFR 63.1961(a)(4)]

iv. Where the permittee seeks to demonstrate compliance with the operational standard for temperature in 40 CFR 63.1958(c)(1), unless a higher operating temperature value has been approved by the Administrator under 40 CFR 63, Subpart AAAA or under 40 CFR part 60, subpart WWW; 40 CFR part 60, subpart XXX; or a federal plan or EPA-approved and effective state plan or tribal plan that implements either 40 CFR part 60, subpart Cc or 40 CFR part 60, subpart Cf, the permittee must initiate enhanced monitoring at each well with a measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) as follows: [40 CFR 63.1961(a)(5)]
   1. Visual observations for subsurface oxidation events (smoke, smoldering ash, damage to well) within the radius of influence of the well. [40 CFR 63.1961(a)(5)(i)]
   2. Monitor oxygen concentration as provided in 40 CFR 63.1961(a)(2); [40 CFR 63.1961(a)(5)(ii)]
   3. Monitor temperature of the landfill gas at the wellhead as provided in 40 CFR 63.1961(a)(4). [40 CFR 63.1961(a)(5)(iii)]
   4. Monitor temperature of the landfill gas every 10 vertical feet of the well as provided in 40 CFR 63.1961(a)(6). [40 CFR 63.1961(a)(5)(iv)]
   5. Monitor the methane concentration with a methane meter using EPA Method 3C of appendix A–6 to 40 CFR 60, EPA Method 18 of appendix A–6 to 40 CFR 60, or a portable gas composition analyzer to monitor the methane levels provided that the analyzer is calibrated and the analyzer meets all quality assurance and quality control requirements for EPA Method 3C or EPA Method 18. [40 CFR 63.1961(a)(5)(v)]
   6. Monitor and determine carbon monoxide concentrations, as follows: [40 CFR 63.1961(a)(5)(vi)]
      A. Collect the sample from the wellhead sampling port in a passivated canister or multi-layer foil gas sampling bag (such as the Cali-5-Bond Bag) and analyze that sample using EPA Method 10 of appendix A–4 to 40 CFR 60, or an equivalent method with a detection limit of at least 100 ppmv of carbon monoxide in high concentrations of methane; or [40 CFR 63.1961(a)(5)(vi)(A)]

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

B. Collect and analyze the sample from the wellhead using EPA Method 10 of appendix A–4 to 40 CFR 60 to measure carbon monoxide concentrations. [40 CFR 63.1961(a)(5)(vi)(B)]

C. The permittee may use ALT-143 or ALT-144 in lieu of EPA Method 10 to meet the requirement in 40 CFR 63.1961(a)(5)(vi)(A) and (B). [40 CFR 63.1981(d)(2)]

D. When sampling directly from the wellhead, the permittee must sample for 5 minutes plus twice the response time of the analyzer. These values must be recorded. The five 1-minute averages are then averaged to give the carbon monoxide reading at the wellhead. [40 CFR 63.1961(a)(5)(vi)(C)]

E. When collecting samples in a passivated canister or multi-layer foil sampling bag, the permittee must sample for the period of time needed to assure that enough sample is collected to provide five (5) consecutive, 1-minute samples during the analysis of the canister or bag contents, but no less than 5 minutes plus twice the response time of the analyzer. The five (5) consecutive, 1-minute averages are then averaged together to give a carbon monoxide value from the wellhead. [40 CFR 63.1961(a)(5)(vi)(D)]

7. The enhanced monitoring described in 40 CFR 63.1961(a)(5) must begin 7 calendar days after the first measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit); and [40 CFR 63.1961(a)(5)(vii)]
8. The enhanced monitoring in 40 CFR 63.1961(a)(5) must be conducted on a weekly basis. If four consecutive weekly carbon monoxide readings are under 100 ppmv, then enhanced monitoring may be decreased to monthly. However, if carbon monoxide readings exceed 100 ppmv again, the landfill must return to weekly monitoring. [40 CFR 63.1961(a)(5)(viii)]
9. The enhanced monitoring in 40 CFR 63.1961(a)(5) can be stopped once a higher operating value is approved, at which time the monitoring provisions issued with the higher operating value should be followed, or once the measurement of landfill gas temperature at the wellhead is less than or equal to 62.8 degrees Celsius (145 degrees Fahrenheit). [40 CFR 63.1961(a)(5)(ix)]

v. For each wellhead with a measurement of landfill gas temperature greater than or equal to 73.9 degrees Celsius (165 degrees Fahrenheit), annually monitor temperature of the landfill gas every 10 vertical feet of the well. This temperature can be monitored either with a removable thermometer, or using temporary or permanent thermocouples installed in the well. [40 CFR 63.1961(a)(6)]

e. The monitoring requirements of 40 CFR 63.1961(a), (b), (c), (d), 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. Where the permittee seeks to demonstrate compliance with the temperature

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

and nitrogen or oxygen operational standards in introductory paragraph 40 CFR 63.1958(c)(1), (d)(2), and (e)(1), the standards apply at all times. [40 CFR 63.1961(h)]

f. 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)]

g. The permittee shall perform a daily qualitative observation of visible emissions from each flare and the thermal oxidizer during operation, during daylight hours. Observation of any visible emissions shall necessitate an opacity determination using U.S. EPA Reference Method 9. The determination shall be performed within 24 hours of the initial observance of visible emissions or, if emission unit is shut down within 24 hours, immediately upon startup. If the resulting opacity measurement exceeds the applicable standard, corrective actions shall be taken to correct the condition causing excess emissions. After corrective actions have been taken, another U.S. EPA Reference Method 9 observation shall be performed and the permittee shall notify the Regional Office listed on the front of this permit. [401 KAR 52:020, Section 10]

h. The permittee shall monitor waste acceptance rate on a daily basis. [401 KAR 52:020, Section 10]

i. The permittee shall monitor, quarterly, the liquid level within each gas collection well and the available (unsubmerged) perforations for each well. [401 KAR 52:020, Section 10]

j. The permittee shall monitor hours of operation of the landfill gas collection and control system. [401 KAR 52:020, Section 10]

k. The permittee shall quarterly collect and test for H_2S concentration at least one sample from the common header, using a gas detection tube (e.g. Draeger Tubes, etc.). Quarterly tests shall be at least 60 days apart. The gas detection tubes used for this monitoring must be selected to include an appropriate range for the sample, as determined using the testing data from **3. Testing Requirements (h).** The permittee shall use the annual average H_2S concentration when reporting H_2S and SO_2 emissions from the landfill and flare. [401 KAR 52:020, Section 10]

l. The permittee shall monitor the reasonable precautions taken to prevent particulate matter from becoming airborne on a daily basis. [401 KAR 52:020, Section 10]

m. If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct U.S. EPA Reference Method 22 (visual determination of fugitive emissions) observations per Appendix A of 40 C.F.R. Part 60. In lieu of conducting U.S.

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

EPA Reference Method 22, the permittee shall immediately perform a corrective action which results in no visible fugitive dust emissions beyond the lot line of the property. [401 KAR 52:020, Section 10]

n. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. The monthly hours of operation of each flare and RNG plant;
   ii. The incoming flow of landfill gas to the RNG plant from the wellfield, in MMscf;
   iii. The monthly quantity of landfill gas sent to EU 010 in MMscf;
   iv. The monthly quantity of landfill/off-spec gas sent to EU 009, in MMscf;
   v. The monthly quantity of waste gas sent to the thermal oxidizer, in MMscf; and
   vi. The monthly natural gas usage in the flare and the thermal oxidizer, in MMscf.

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

5. Specific Recordkeeping Requirements:

a. The permittee must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered 40 CFR 63.1959(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. [40 CFR 63.1983(a)]

b. 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 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 63.1983(b)]
   i. Where the permittee seeks to demonstrate compliance with 40 CFR 63.1959(b): [40 CFR 63.1983(b)(1)]
      1. The maximum expected gas generation flow rate as calculated in 40 CFR 63.1960(a)(1). The permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Division. [40 CFR 63.1983(b)(1)(i)]
      2. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR 63.1962(a)(1) and (2). [40 CFR 63.1983(b)(1)(ii)]
   ii. For the enclosed combustion device (thermal oxidizer): [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 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)]
   iii. Where the permittee seeks to demonstrate compliance with 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 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; and 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)]

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

iv. 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 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 systems (CMS). [40 CFR 63.1983(b)(5)(ii)(F)]

c. 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 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 must be recorded and reported under 40 CFR 63.1981(h): [40 CFR 63.1983(c)(1)]
1. For the 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)(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 63.1983(c)(2)]
iii. The permittee, seeking to comply with the provisions of 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 records of all periods of operation in which the flame or flare pilot flame is absent. [40 CFR 63.1983(c)(4)]

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

iv. The permittee, seeking to comply with 40 CFR 63.1959(b)(2) using an active collection system designed in accordance with 40 CFR 63.1959(b)(2)(ii) must keep records of periods when the collection system or control device is not operating. [40 CFR 63.1983(c)(5)]

v. 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)]

vi. 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)]

vii. 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 must 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)]

d. The permittee must keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label on each collector that matches the labeling on the plot map. [40 CFR 63.1983(d)]
   i. The permittee must keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under 40 CFR 63.1960(b). [40 CFR 63.1983(d)(1)]
   ii. The permittee must keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in 40 CFR 63.1962(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in 40 CFR 63.1962(a)(3)(ii). [40 CFR 63.1983(d)(2)]

e. The permittee must keep for at least 5 years up-to-date, readily accessible records of the following: [40 CFR 63.1983(e)]
   i. All collection and control system exceedances of the operational standards in 40 CFR 63.1958, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance. [40 CFR 63.1983(e)(1)]
   ii. The permittee must keep records of each wellhead temperature monitoring value of greater than 62.8 degrees Celsius (145 degrees Fahrenheit), each wellhead nitrogen

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

level at or above 20 percent, and each wellhead oxygen level at or above 5 percent. [40 CFR 63.1983(e)(2)]

1. If the permittee is required to conduct the enhanced monitoring provisions in 40 CFR 63.1961(a)(5), the permittee must also keep records of all enhanced monitoring activities. [40 CFR 63.1983(e)(2)(ii)]
2. If the permittee is required to submit the 24-hour high temperature report in 40 CFR 63.1981(k), the permittee must also keep a record of the email transmission. [40 CFR 63.1983(e)(2)(iii)]

iii. For any root cause analysis for which corrective actions are required in 40 CFR 63.1960(a)(3)(i)(A) or (a)(4)(i)(A), keep a record of the root cause analysis conducted, including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed. [40 CFR 63.1983(e)(3)]

iv. For any root cause analysis for which corrective actions are required in 40 CFR 63.1960(a)(3)(i)(B) or (a)(4)(i)(B), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates. [40 CFR 63.1983(e)(4)]

v. For any root cause analysis for which corrective actions are required in 40 CFR 63.1960(a)(3)(i)(C) or (a)(4)(i)(C), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the Division. [40 CFR 63.1983(e)(5)]

f. The permittee must keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in 40 CFR 63.1961(a)(1) through (6). [40 CFR 63.1983(g)]

g. If the permittee adds any liquids other than leachate in a controlled fashion to the waste mass and does not comply with the bioreactor requirements in 40 CFR 63.1947, 63.1955(b), and 40 CFR 63.1982(a) and (b), the permittee must keep a record of calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40 percent. The calculation must consider the waste mass, moisture content of the incoming waste, mass of water added to the waste including leachate recirculation and other liquids addition and precipitation, and the mass of water removed through leachate or other water losses. Moisture level sampling or mass balances calculations can be used. The permittee must document the calculations and the basis of any assumptions. Keep the record of the calculations until the permittee ceases liquids addition. [40 CFR 63.1982(c)]

h. 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]

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

i. Where the permittee seeks to demonstrate compliance with the operational standard for temperature in 40 CFR 63.1958(c)(1), the permittee must keep the following records. [40 CFR 63.1983(h)]
   i. Records of the landfill gas temperature on a monthly basis as monitored in 40 CFR 63.1960(a)(4). [40 CFR 63.1983(h)(1)]
   ii. Records of enhanced monitoring data at each well with a measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) as gathered in 40 CFR 63.1961(a)(5) and (6). [40 CFR 63.1983(h)(2)]

j. 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(i)]

k. For all asbestos-containing waste material received, the permittee shall: [40 CFR 61.154(e)]
   i. Maintain waste shipment records, using a form similar to that shown in **Attachment A**, and include the following information: [40 CFR 61.154(e)(1)]
      1. The name, address, and telephone number of the waste generator. [40 CFR 61.154(e)(1)(i)]
      2. The name, address, and telephone number of the transporter(s). [40 CFR 61.154(e)(1)(ii)]
      3. The quantity of the asbestos-containing waste material in cubic meters (cubic yards). [40 CFR 61.154(e)(1)(iii)]
      4. The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Refer to **6. Specific Reporting Requirements (o)(i).** [40 CFR 61.154(e)(1)(iv)]
      5. The date of the receipt. [40 CFR 61.154(e)(1)(v)]
   ii. As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator. [40 CFR 61.154(e)(2)]
   iii. Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, refer to **6. Specific Reporting Requirements (o)(ii).** [40 CFR 61.154(e)(3)]

l. The permittee shall maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area. [40 CFR 61.154(f)]

m. Upon closure, the permittee shall comply with all the provisions of 40 CFR 61.151. [40 CFR 61.154(g)]

n. The permittee shall furnish upon request, and make available during normal business hours for inspection by the Division, all records required under 40 CFR 61.154. [40 CFR 61.154(i)]

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

o. The permittee shall maintain records of the daily waste acceptance rate. [401 KAR 52:020, Section 10]

p. The permittee shall maintain a log of the reasonable precautions taken to prevent particulate matter from becoming airborne, on a daily basis. Notation of the operating status, down-time, or relevant weather conditions are acceptable for entry to the log. [401 KAR 52:020, Section 10]

q. The permittee shall maintain a log of the following: [401 KAR 52:020, Section 10]
   i. Qualitative fugitive emissions observations conducted including the date, time, initials of observer, whether any fugitive dust emissions were observed,
   ii. Any Reference Method 22 performed and field records identified in Reference Method 22.
   iii. Any corrective action taken and the results.

r. The permittee shall maintain a log of the qualitative visual observations for the flare(s) and the thermal oxidizer 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]

s. The permittee shall maintain records of the liquid level within each gas collection well and the available (unsubmerged) perforations for each well, determined quarterly including the following: [401 KAR 52:020, Section 10]
   i. Percentage of exposed (unsubmerged) perforations for each well and an overall calculated percentage of exposed collection system perforations for gas collection each quarter.
   ii. The measurements and calculations identified above for the twelve (12) prior months and the overall system calculated exposed percentage for the previous 12 month rolling period.
   iii. A map identifying all gas wells and locations of active leachate removal pumps, such that the well and pump locations can be correlated directly with the data provided.

t. The permittee shall maintain records of all H_2S emission data, including gas detection tube and analytical sample results. [401 KAR 52:020, Section 10]

u. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. The monthly hours of operation of each flare and RNG plant;
   ii. The incoming flow of landfill gas to the RNG plant from the wellfield, in MMscf;
   iii. The monthly quantity of landfill gas sent to EU 010 in MMscf;
   iv. The monthly quantity of landfill/off-spec gas sent to EU 009, in MMscf;
   v. The monthly quantity of waste gas sent to the thermal oxidizer, in MMscf; and
   vi. The monthly natural gas usage in the flare and the thermal oxidizer, in MMscf.

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

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

6. Specific Reporting Requirements:

a. If the permittee seeks to install a collection system that does not meet the specifications in 40 CFR 63.1962 or to monitor alternative parameters to those required by 40 CFR 63.1958 through 63.1961, the permittee must provide information satisfactory to the Division as provided in 40 CFR 63.1981(d)(2) and (3) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Division may specify additional appropriate monitoring procedures. [40 CFR 63.1961(e)]

b. The permittee must submit the reports specified in 40 CFR 63.1981 and the reports specified in Table 1 to 40 CFR 63, Subpart AAAA. If the permittee has previously submitted a design capacity report, amended design capacity report, initial NMOC emission rate report, initial or revised collection and control system design plan, closure report, equipment removal report, or initial performance test under 40 CFR part 60, subpart WWW; 40 CFR part 60, subpart XXX; or a federal plan or EPA-approved and effective state plan or tribal plan that implements either 40 CFR part 60, subpart Cc or 40 CFR part 60, subpart Cf, then that submission constitutes compliance with the design capacity report in 40 CFR 63.1981(a), the amended design capacity report in 40 CFR 63.1981(b), the initial NMOC emission rate report in 40 CFR 63.1981(c), the initial collection and control system design plan in 40 CFR 63.1981(d), the revised design plan in 40 CFR 63.1981(e), the closure report in 40 CFR 63.1981(f), the equipment removal report in 40 CFR 63.1981(g), and the initial performance test report in 40 CFR 63.1981(i). The permittee does not need to re-submit the report(s). However, the permittee must include a statement certifying prior submission of the respective report(s) and the date of submittal in the first semi-annual report required in 40 CFR 63.1981. [40 CFR 63.1981]

c. ***Amended design capacity report.*** An amended design capacity report must be submitted providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to meet or exceed 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in 40 CFR 63.1983(f). [40 CFR 63.1981(b)]

d. ***NMOC emission rate report.*** The permittee is exempted from the requirements to submit an NMOC emission rate report, after installing a collection and control system that complies with 40 CFR 63.1959(b)(2), during such time as the collection and control system is in operation and in compliance with 40 CFR 63.1958 and 40 CFR 63.1960. [40 CFR 63.1981(c)(3)]

e. ***Collection and control system design plan.*** The permittee must submit a collection and control system design plan to the Division according to 40 CFR 63.1981(d)(1) through (6). The collection and control system design plan must be prepared and approved by a professional engineer and must meet the following requirements: [40 CFR 63.1981(d)]
   i. The collection and control system as described in the design plan must meet the design requirements in 40 CFR 63.1959(b)(2). [40 CFR 63.1981(d)(1)]
   ii. The collection and control system design plan must include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring,

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

recordkeeping, or reporting provisions of 40 CFR 63.1957 through 40 CFR 63.1983 proposed by the permittee. [40 CFR 63.1981(d)(2)]

iii. The collection and control system design plan must either conform to specifications for active collection systems in 40 CFR 63.1962 or include a demonstration to the Division's satisfaction of the sufficiency of the alternative provisions to 40 CFR 63.1962. [40 CFR 63.1981(d)(3)]

iv. The permittee must submit a collection and control system design plan to the Division for approval within 1 year of becoming subject to 40 CFR 63, Subpart AAAA. [40 CFR 63.1981(d)(4)]

v. The permittee must notify the Division that the design plan is completed and submit a copy of the plan's signature page. The Division has 90 days to decide whether the design plan should be submitted for review. If the Division chooses to review the plan, the approval process continues as described in 40 CFR 63.1981(d)(6). However, if the Division indicates that submission is not required or does not respond within 90 days, the permittee can continue to implement the plan with the recognition that the permittee is proceeding at their own risk. In the event that the design plan is required to be modified to obtain approval, the permittee must take any steps necessary to conform any prior actions to the approved design plan and any failure to do so could result in an enforcement action. [40 CFR 63.1981(d)(5)]

vi. Upon receipt of an initial or revised design plan, the Division must review the information submitted under 40 CFR 63.1981(d)(1) through (3) and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems. [40 CFR 63.1981(d)(6)]

f. ***Revised design plan.*** The permittee who has already been required to submit a design plan under 40 CFR 63.1981(d), must submit a revised design plan to the Division for approval as follows: [40 CFR 63.1981(e)]

i. At least 90 days before expanding operations to an area not covered by the previously approved design plan. [40 CFR 63.1981(e)(1)]

ii. Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the Division according to 40 CFR 63.1981(d). [40 CFR 63.1981(e)(2)]

g. ***Closure report.*** The permittee must submit a closure report to the Division within 30 days of ceasing waste acceptance. The Division may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Division, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 63.9(b). [40 CFR 63.1981(f)]

h. ***Semi-annual report.*** The permittee, using an active collection system designed in accordance with 40 CFR 63.1959(b)(2)(ii), 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 collection and control system and must include the initial performance test

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

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 that applicable parameters monitored under 40 CFR 63.1958(b), (c), and (d) were exceeded and when the gas collection and 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. Where the permittee seeks to demonstrate compliance with the operational standard for temperature in 40 CFR 63.1958(c)(1), provide a statement of the wellhead operational standard for temperature and oxygen the permittee is complying with for the period covered by the report. Indicate the number of times each of those parameters monitored under 40 CFR 63.1961(a)(4) were exceeded. For each instance, report the date, time, and duration of each exceedance. [40 CFR 63.1981(h)(1)(ii)]
    2. 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)]

iv. All periods when the collection system was not operating. [40 CFR 63.1981(h)(4)]

v. The location of each exceedance of the 500-ppm methane concentration as provided in 40 CFR 63.1958(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. For location, the permittee must record the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. [40 CFR 63.1981(h)(5)]

vi. The date of installation and the location of each well or collection system expansion added pursuant to 40 CFR 63.1960(a)(3) and (4), (b), and (c)(4). [40 CFR 63.1981(h)(6)]

vii. For any corrective action analysis for which corrective actions are required in 40 CFR 63.1960(a)(3)(i) or (a)(5) and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates. [40 CFR 63.1981(h)(7)]

viii. The permittee, if required to conduct enhanced monitoring in 40 CFR 63.1961(a)(5) and (6), must include the results of all monitoring activities conducted during the period. [40 CFR 63.1981(h)(8)]
    1. For each monitoring point, report the date, time, and well identifier along with the value and units of measure for oxygen, temperature (wellhead and downwell), methane, and carbon monoxide. [40 CFR 63.1981(h)(8)(i)]

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

2. Include a summary trend analysis for each well subject to the enhanced monitoring requirements to chart the weekly readings over time for oxygen, wellhead temperature, methane, and weekly or monthly readings over time, as applicable for carbon monoxide. [40 CFR 63.1981(h)(8)(ii)]
3. Include the date, time, staff person name, and description of findings for each visual observation for subsurface oxidation event. [40 CFR 63.1981(h)(8)(iii)]

i. ***Initial performance test report.*** The permittee, seeking to comply with 40 CFR 63.1959(b)(2)(iii), must include the following information with the initial performance test report required under 40 CFR 63.7: [40 CFR 63.1981(i)]
   i. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion; [40 CFR 63.1981(i)(1)]
   ii. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based; [40 CFR 63.1981(i)(2)]
   iii. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material; [40 CFR 63.1981(i)(3)]
   iv. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; [40 CFR 63.1981(i)(4)]
   v. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and [40 CFR 63.1981(i)(5)]
   vi. The provisions for the control of off-site migration. [40 CFR 63.1981(i)(6)]

j. ***Corrective action and the corresponding timeline***. The permittee must submit information regarding corrective actions according to 40 CFR 63.1981(j)(1) and (2). [40 CFR 63.1981(j)]
   i. For corrective action that is required according to 40 CFR 63.1960(a)(3) or (4) and is not completed within 60 days after the initial exceedance, the permittee must submit a notification to the Division as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance. [40 CFR 63.1981(j)(1)]
   ii. For corrective action that is required according to 40 CFR 63.1960(a)(3) or (4) and is expected to take longer than 120 days after the initial exceedance to complete, you must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Division as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 62.8 degrees Celsius (145 degrees Fahrenheit) or above unless a higher operating temperature value has been approved by the Administrator for the well under 40 CFR 63, Subpart AAAA or under 40 CFR part 60, subpart WWW; 40 CFR part 60, subpart XXX; or a Federal plan or EPA approved and effective state plan or tribal plan that implements either 40 CFR part 60, subpart Cc or 40 CFR part 60, subpart Cf. The Division must approve the plan for corrective action and the corresponding timeline. [40 CFR 63.1981(j)(2)]

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

k. ***24-hour high temperature report.*** Where the permittee seeks to demonstrate compliance with the operational standard for temperature in 40 CFR 63.1958(c)(1) and a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7 degrees Celsius (170 degrees Fahrenheit) and the carbon monoxide concentration measured is greater than or equal to 1,000 ppmv, then the permittee must report the date, time, well identifier, temperature and carbon monoxide reading via email to the Division within 24 hours of the measurement unless a higher operating temperature value has been approved by the Division for the well under 40 CFR 63, Subpart AAAA or under 40 CFR part 60, subpart WWW; 40 CFR part 60, subpart XXX; or a Federal plan or EPA approved and effective state plan or tribal plan that implements either 40 CFR part 60, subpart Cc or 40 CFR part 60, subpart Cf. [40 CFR 63.1981(k)]

l. ***Electronic reporting.*** The permittee must 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 must submit the results of the performance test following the procedures specified in 40 CFR 63.1981(l)(1)(i) through (iii). [40 CFR 63.1981(l)(1)]
   ii. The permittee required to submit reports following the procedure specified in 40 CFR 63.1981(l) 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 63, Subpart AAAA or an alternate electronic file format consistent with the XML schema listed on the CEDRI Web site (https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri). 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 be submitted by the deadlines specified in 40 CFR 63, Subpart AAAA, regardless of the method in which the reports are submitted. The NMOC emission rate reports, semi-annual reports, and bioreactor 40-percent moisture reports should 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 must submit the reports to the Administrator at the appropriate address listed in 40 CFR 63.13 of subpart A. [40 CFR 63.1981(l)(2)]

m. For all asbestos-containing waste material received, the permittee shall: [40 CFR 61.154(e)]
   i. The permittee shall report, in writing, by the following working day, the presence of a significant amount of improperly enclosed or uncovered asbestos-containing waste in any load received. The report shall be sent to the local, State, or U.S. EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and if different, the Division for Air Quality Regional Office listed on the front page of this permit. A copy of the waste shipment record shall be included in the report. [40 CFR 61.154(e)(1)(iv)]
   ii. The permittee shall report, in writing, any discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received if not resolved within 15 days after receiving the waste. The report shall be sent to the local, State, or U.S. EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record),

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

and if different, the Division for Air Quality Regional Office listed on the front page of this permit. The report shall describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report. [40 CFR 61.154(e)(3)]

n. The permittee shall submit to the Division, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities. [40 CFR 61.154(h)]

o. The permittee shall notify the Division in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Division at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice: [40 CFR 61.154(j)]
   i. Scheduled starting and completion dates. [40 CFR 61.154(j)(1)]
   ii. Reason for disturbing the waste. [40 CFR 61.154(j)(2)]
   iii. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Division may require changes in the emission control procedures to be used. [40 CFR 61.154(j)(3)]
   iv. Location of any temporary storage site and the final disposal site. [40 CFR 61.154(j)(4)]

p. The permittee shall include the results of the quarterly H_2S gas detection tube measurements taken during the semi-annual period in the semi-annual reports required by **SECTION F**.

q. The permittee shall include the results of the annual analytical H_2S gas testing (Using U.S. EPA Method 15/16, ASTM D4084, ASTM D5504, or an alternate method as approved by the Division) performed during the semi-annual period in the semi-annual reports required by **SECTION F**.

r. The permittee shall notify the Regional Office listed on the front of this permit at least five (5) business days prior to the scheduled date and time of the quarterly surface scan, or a shorter time as approved by the field office. The field office shall make reasonable accommodations for rescheduling of scans. [401 KAR 52:020, Section 10]

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

7. Specific Control Equipment Operating Conditions:

a. ***Control system.*** The permittee shall route all the collected gas 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). [40 CFR 63.1959(b)(2)(iii)(A)]

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

ii. 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 either 40 CFR 63.1959(b)(2)(iii)(A) or (B). [40 CFR 63.1959(b)(2)(iii)(C)]

iii. 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)]

1. 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)]
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 1959(e). [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 63.1961(b) through (e); [40 CFR 63.1959(b)(2)(iii)(B)(2)]

b. For the enclosed combustor (thermal oxidizer), 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 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)]

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

c. For each non-enclosed flare, 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 must: [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)]

d. If the permittee seeks to demonstrate compliance with 40 CFR 63.1959(b)(2)(iii) using a device other than a non-enclosed flare or an enclosed combustor or a treatment system must provide information satisfactory to the Division as provided in 40 CFR 63.1981(d)(2) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Division must review the information and either approve it, or request that additional information be submitted. The Division may specify additional appropriate monitoring procedures. [40 CFR 63.1961(d)]

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 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)]

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 63, Subpart AAAA. [40 CFR 63.11(b)(1)]

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

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

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 63.11(b)(5)]

i. For the flare, the permittee has the choice of adhering to either 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)(1). [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 63.11(b)(6)(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 63.11(b)(7)(i), less than 18.3 m/sec (60 ft/sec), except as provided in 40 CFR 63.11(b)(7)(ii) and (iii). [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 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 63.11(b)(7)(ii)]

j. Refer to **SECTION E**.

8. Alternate Operating Scenarios:

Refer to **SECTION H** for alternate operating scenarios regarding removal of the gas collection system, requests for Higher Operating Values (HOVs), and requests for decommissioning.

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

Emission Unit 003 – Paved and Unpaved Haul Roads

Description: Paved haul roads and unpaved haul roads
Maximum Capacity: 89,091 VMT paved, 471,606 VMT unpaved
Construction commenced: 2005
Control Devices: Water trucks

APPLICABLE REGULATIONS:
401 KAR 63:010, *Fugitive emissions*

1. **Operating Limitations:**
   a. The permittee shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished; or a road to be used without taking reasonable precaution to prevent particulate matter from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]:
      i. Use, if possible, of water or chemicals for control of dust in construction operations, the grading of roads or the clearing of land; [401 KAR 63:010, Section (3)(1)(a)]
      ii. Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts; [401 KAR 63:010, Section (3)(1)(b)]
      iii. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. [401 KAR 63:010, Section (3)(1)(c)]
      iv. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; [401 KAR 63:010, Section (3)(1)(d)]
      v. The maintenance of paved roadways in a clean condition; or [401 KAR 63:010, Section (3)(1)(e)]
      vi. The prompt removal of earth or other materials from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water. [401 KAR 63:010, Section (3)(1)(f)]

   b. At all times while in motion, open bodied trucks, operating outside company property, transporting materials likely to become airborne shall be covered. [401 KAR 63:010, Section 4(1)]

   c. The permittee shall not cause, suffer, or allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway. [401 KAR 63:010, Section 4(4)]

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

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

2. Emission Limitations:

The permittee shall not cause, suffer, or allow visible fugitive dust emissions beyond the lot line of the property on which the emissions originate, as determined by Reference Method 22 of Appendix A in 40 C.F.R. Part 60, for: [401 KAR 63:010, Section 3(2)]

a. More than five (5) minutes of emission time during any sixty (60) minute observation period; or [401 KAR 63:010, Section 3(2)(a)]

b. More than twenty (20) minutes of emission time during any twenty-four (24) hour period. [401 KAR 63:010, Section 3(2)(b)]

Compliance Demonstration:

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

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 reasonable precautions taken to prevent particulate matter from becoming airborne on a daily basis. [401 KAR 52:020, Section 10]

b. The permittee shall perform a qualitative visual observation of the lot line once per day, during operation. If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct U.S. EPA Reference Method 22 (visual determination of fugitive emissions) observations per Appendix A of 40 C.F.R. Part 60. In lieu of conducting U.S. EPA Reference Method 22, the permittee shall immediately perform a corrective action which results in no visible fugitive dust emissions beyond the lot line of the property. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a log of the reasonable precautions taken to prevent particulate matter from becoming airborne, on a daily basis. Notation of the operating status, down-time, or relevant weather conditions are acceptable for entry to the log. [401 KAR 52:020, Section 10]

b. The permittee shall maintain a log of the following: [401 KAR 52:020, Section 10]
   i. Qualitative fugitive emissions observations conducted daily including the date, time, initials of observer, whether any fugitive dust emissions were observed,
   ii. Any Reference Method 22 performed and field records identified in Reference Method 22.
   iii. Any corrective action taken and the results.

6. Specific Reporting Requirements:

Refer to **Section F.5 and F.6**.

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

7. Specific Control Equipment Operating Conditions:

Appropriate equipment for dust suppression shall be on site and in working order at all times of operation of the landfill. [401 KAR 52:020, Section 10]

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

Emission Unit 002 - Industrial Waste Solidification Process

Description: Mixing of liquid industrial wastes from various sources with dry mediums to form a solid that can be landfilled.

Maximum Capacity: 8,345 tons/yr of liquid waste
Construction commenced: 2005
Control Devices: None

APPLICABLE REGULATIONS:
401 KAR 63:010, *Fugitive emissions*

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

1. **Operating Limitations:**
   a. The permittee shall not cause, suffer, or allow any material to be handled, processed, transported, or stored without taking reasonable precaution to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, as applicable: [401 KAR 63:010, Section (3)(1)]
      i. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. [401 KAR 63:010, Section (3)(1)(c)]
      ii. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; [401 KAR 63:010, Section (3)(1)(d)]

   b. When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate any administrative regulation, the secretary may order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that all air and gases and air or gas-borne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air. [401 KAR 63:010, Section 3(3)]

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

2. **Emission Limitations:**
   a. The permittee shall not cause, suffer, or allow visible fugitive dust emissions beyond the lot line of the property on which the emissions originate, as determined by Reference Method 22 of Appendix A in 40 C.F.R. Part 60, for: [401 KAR 63:010, Section 3(2)]
      i. More than five (5) minutes of emission time during any sixty (60) minute observation period; or [401 KAR 63:010, Section 3(2)(a)]
      ii. More than twenty (20) minutes of emission time during any twenty-four (24) hour period. [401 KAR 63:010, Section 3(2)(b)]

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

b. The permittee shall provide the utmost care and consideration, in the handling of hazardous matter or toxic substances, to the potentially harmful effects of the emissions resulting from such activities. The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the cabinet. [401 KAR 63:020, Section 3]

Compliance Demonstration Method:
The Cabinet determines that the source is in compliance with 401 KAR 63:020 based on the rate of emissions of airborne toxics determined by the cabinet using information provided in the application and supplemental information submitted by the source.

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 Division.

4. Specific Monitoring Requirements:

a. The permittee shall monitor the reasonable precautions taken to prevent particulate matter from becoming airborne on a daily basis. [401 KAR 52:020, Section 10]

b. If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct U.S. EPA Reference Method 22 (visual determination of fugitive emissions) observations per Appendix A of 40 C.F.R. Part 60. In lieu of conducting U.S. EPA Reference Method 22, the permittee shall immediately perform a corrective action which results in no visible fugitive dust emissions beyond the lot line of the property. [401 KAR 52:020, Section 10]

c. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. The monthly gallons/tons of each industrial waste added to the solidification process.
   ii. The hazardous and toxic air pollutant content for each industrial waste processed based on the best information available.
   iii. The individual and combined HAP emissions from the solidification pit, in tons per year, based on a rolling 12-month basis. The calculation shall take into account the assumption that 100% of each volatile compound is emitted.

d. The permittee shall calculate, monthly, the individual and combined HAP emissions based on the assumptions in **4. Specific Monitoring Requirements** (a), above, and the equations below. The calculation shall be performed based on the material characteristics of each individual load solidified within the solidification pit. [401 KAR 52:020, Section 10]
   i. For each volatile HAP:

$$HAP_{individual_{vx}} = C_{max} \times Quantity_{vx}$$

Where:

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

$HAP_{individual_{vx}}$ = Total emissions of the individual volatile HAP in each waste during month *x* in tons/month
C_{max} = The maximum concentration of the individual volatile HAP in each waste
$Quantity_{vx}$ = The quantity of each waste containing volatile HAP accepted during month *x*

ii. For each non-volatile HAP:

$$\boldsymbol{HAP_{individual_{sx}} = C_{max} \times Quantity_{sx} \times EF}$$

Where:
$HAP_{individual_{sx}}$ = Total emissions of the individual non-volatile HAP in each waste during month *x* in tons/month
C_{max} = The maximum concentration of the individual non-volatile HAP in each waste
$Quantity_{sx}$ = The quantity of each waste containing non-volatile HAP accepted during month *x*
EF = The emission factor for material handling as approved by the Division

iii. For combined HAP emissions:

$$\boldsymbol{HAP_{combined_x} = \sum_{i=1}^{n} HAP_{individual_{vx}} + \sum_{i=1}^{n} HAP_{individual_{sx}}}$$

And:

$$\boldsymbol{HAP_{total} = \sum_{i=1}^{12} HAP_{combined_x}}$$

Where:
$HAP_{combined_x}$ = Combined HAP emissions (volatile and non-volatile) during month *x* in tons/month
HAP_{total} = Total emissions of HAP in tons/year
n = Total number of HAP
x = Month *x*

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the items listed in **4. Specific Monitoring Requirements**, above.

b. The permittee shall maintain a log of the reasonable precautions taken to prevent particulate matter from becoming airborne, on a daily basis. Notation of the operating status, down-time, or relevant weather conditions are acceptable for entry to the log. [401 KAR 52:020, Section 10]

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

c. The permittee shall maintain a log of the following: [401 KAR 52:020, Section 10]
   i. Any Reference Method 22 performed and field records identified in Reference Method 22.
   ii. Any corrective action taken and the results.

6. Specific Reporting Requirements:

a. The permittee shall include in the semiannual report, the individual and combined HAP emissions from the solidification pit, in tons per year, on a rolling 12-month basis. [401 KAR 52:020, Section 10]

b. Refer to **SECTION F.5 and F.6**.

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

Emission Unit 006 – 300 Gallon Gasoline Storage Tank & Dispensing

Maximum Capacity: 10,000 gallons per year dispensed
Construction Commenced: 2006
Controls: None

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

1. **Operating Limitations:**
   a. The permittee shall, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.1115(a)]

   b. The permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following: [40 CFR 63.11116(a)]
      i. Minimize gasoline spills; [40 CFR 63.11116(a)(1)]
      ii. Clean up spills as expeditiously as practicable; [40 CFR 63.11116(a)(2)]
      iii. Cover all open gasoline containers and all gasoline storage fill-pipes with a gasketed seal when not in use; [40 CFR 63.11116(a)(3)]
      iv. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators. [40 CFR 63.11116(a)(4)]

2. **Emission Limitations:**
   None

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 Division.

4. **Specific Monitoring Requirements:**
   The permittee shall monitor monthly gasoline throughput in gallons. [401 KAR 52:020, Section 10]

5. **Specific Recordkeeping Requirements:**
   a. The permittee is not required to submit notifications or reports as specified in 40 CFR 63.11125, 40 CFR 63.11126, or 40 CFR 63, Subpart A, but the permittee shall have

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

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

b. The permittee shall keep records as specified in 40 CFR 63.11125(d)(1) and (2): [40 CFR63.11125(d)]
   i. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR 63.11125(d)(1)]
   ii. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.11125(d)(2)]

6. Specific Reporting Requirements:

The permittee shall, upon request by the Administrator, demonstrate that monthly throughput is less than the 10,000-gallon or the 100,000-gallon threshold level, as applicable. Recordkeeping to document monthly throughput shall begin upon startup of the affected source. Records required under 40 CFR 63.11111(e) shall be kept for a period of 5 years. [40 CFR 63.11111(e)]

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

Emission Unit 011 Emergency CI RICE #1

Description:
Cummins C150D6D 4-Stroke CI RICE for emergency use.
Maximum Continuous Rating: 324 HP (150 kW)
Fuel: Diesel
Controls: None
Construction Commenced: 2025

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*
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 part 63 by meeting the requirements of 40 CFR part 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 stationary CI ICE that achieve the emission standards as required 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) though (3), is

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

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 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)]

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

2. Emission Limitations:

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 for their 2007 model year and later emergency stationary CI ICE. [40 CFR 60.4205(b)]

Pollutant	Emission Standards g/KW-hr
CO	3.5
NMHC+NOx	4.0
PM	0.20

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 record 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 ICE operates for the purpose 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. Leachate Tank (301,000 gallons) – EU007	None
2. On-Road Diesel Storage Tank (10,000 gallons)	None
3. Off-Road Diesel Storage Tank (2,000 gallons)	None
4. 50w Oil Tank (250 gallons)	None
5. 30w Oil Tank (250 gallons)	None
6. Hydraulic Oil Tank (250 gallons)	None
7. 15w40 Oil Tank (250 gallons)	None
8. 35 HP Non-Road Diesel Air Compressor	401 KAR 63:020
9. 20.5 HP Non-Road Diesel Welding Machine	401 KAR 63:020
10. 15 HP Non-Road Diesel Air Compressor	401 KAR 63:020
11. 20 HP Non-Road Diesel Pump	401 KAR 63:020
12. 13 HP Non-Road Gasoline Pressure Washer	401 KAR 63:020
13. 20 HP Non-Road Gasoline Pressure Washer	401 KAR 63:020
14. 11 HP Non-Road Gasoline Air Compressor	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, NMHC+NOx, CO, 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;

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

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

Division for Air Quality	U.S. EPA Region 4
Owensboro Regional Office	Air Enforcement Branch
3032 Alvey Park Drive W	Atlanta Federal Center
STE 700	61 Forsyth St. SW
Owensboro KY 42303-2191	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) 2].

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) 4.].

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) 1.].

SECTION G - GENERAL PROVISIONS (CONTINUED)

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

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

2. Permit Expiration and Reapplication Requirements

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

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

3. Permit Revisions

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

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

SECTION G - GENERAL PROVISIONS (CONTINUED)

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 008, in accordance with the terms and conditions of permit V-18-053 R1.

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission units 009, 010 and 011, in accordance with the terms and conditions of permit V-18-053 R2.

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

SECTION G - GENERAL PROVISIONS (CONTINUED)

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 (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.

SECTION G - GENERAL PROVISIONS (CONTINUED)

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 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.

SECTION G - GENERAL PROVISIONS (CONTINUED)

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

The alternate operating scenarios set forth below have been approved by the Division based on information supplied with the application and during the application review process. The terms and conditions of each alternate operating scenario have been developed to ensure compliance with the applicable regulations. The permittee, when making a change from one operating scenario to another, shall record contemporaneously in a log at the permitted facility a record of the scenario under which the facility is operating. The permit shield, as provided in Section G shall extend to each alternate operating scenario set forth in this Section. All conditions not specified under an alternate operating scenario shall remain unchanged from their permit values or requirements.

ALTERNATE OPERATING SCENARIO 1

Removal of Gas Collection and Control System
This alternate operating scenario establishes the requirements that must be met to remove a GCCS at a landfill.

Emission Unit 001 - Municipal Solid Waste (MSW) Landfill

1. Operating Limitations

a. ***Removal criteria.*** The collection and control system may be capped, removed, or decommissioned if the following criteria are met: [40 CFR 63.1957(b)]
   i. The landfill is a closed landfill (as defined in 40 CFR 63.1990). A closure report must be submitted to the Division as provided in 40 CFR 63.1981(f); [40 CFR 63.1957(b)(1)]
   ii. The gas collection and control system has been in operation a minimum of 15 years or the permittee demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flow; and [40 CFR 63.1957(b)(2)]
   iii. Following the procedures specified in 40 CFR 63.1959(c), the calculated NMOC emission rate at the landfill is less than 50 Mg/yr on three successive test dates. The test dates must be no less than 90 days apart, and no more than 180 days apart. [40 CFR 63.1957(b)(3)]

b. After the installation and startup of a collection and control system in compliance 40 CFR 63, Subpart AAAA, the permittee must calculate the NMOC emission rate for purposes of determining when the system can be capped, removed, or decommissioned as provided in 40 CFR 63.1957(b)(3), using Equation 3: [40 CFR 63.1959(c)]

$$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC}$$

Where:
M_{NMOC} = Mass emission rate of NMOC, megagrams per year.
Q_{LFG} = Flow rate of landfill gas, cubic meters per minute.
C_{NMOC} = Average NMOC concentration, parts per million by volume as hexane.
1.89×10^{-3} = Conversion factor.

SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

i. The flow rate of landfill gas, Q_{LFG}, must be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control system using a gas flow measuring device calibrated according to the provisions of section 10 of EPA Method 2E of appendix A-1 of 40 CFR 60. [40 CFR 63.1959(c)(1)]

ii. The average NMOC concentration, C_{NMOC}, must be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in EPA Method 25 or 25C of appendix A-7 of 40 CFR 60. The sample location on the common header pipe must be before any condensate removal or other gas refining units. The permittee must divide the NMOC concentration from EPA Method 25 or 25C of appendix A-7 of 40 CFR 60 by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane. [40 CFR 63.1959(c)(2)]

iii. The permittee may use another method to determine landfill gas flow rate (Q_{LFG}) and NMOC concentration (C_{NMOC}) if the method has been approved by the Administrator. [40 CFR 63.1959(c)(3)]

1. Within 60 days after the date of completing each performance test (as defined in 40 CFR 63.7), the permittee must submit the results of the performance test, including any associated fuel analyses, according to 40 CFR 63.1981(l)(1). [40 CFR 63.1959(c)(3)(i)]

2. Emission Limitations

Unchanged from **SECTION B**.

3. Testing Requirements

Unchanged from **SECTION B**.

4. Specific Monitoring Requirements

Unchanged from **SECTION B**.

5. Specific Recordkeeping Requirements

Unchanged from **SECTION B**.

6. Specific Reporting Requirements

a. ***Equipment removal report***. The permittee must submit an equipment removal report to the Division 30 days prior to removal or cessation of operation of the control equipment. [40 CFR 63.1981(g)]

i. The equipment removal report must contain all of the following items: [40 CFR 63.1981(g)(1)]

1. A copy of the closure report submitted in accordance with 40 CFR 63.1981(f); and [40 CFR 63.1981(g)(1)(i)]
2. A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, or information that demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flows. In the equipment removal 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

SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

performance test report if the report has been previously submitted to the EPA's CDX; and [40 CFR 63.1981(g)(1)(ii)]

3. Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports; or [40 CFR 63.1981(g)(1)(iii)]

ii. The Division may request such additional information as may be necessary to verify that all of the conditions for removal in 40 CFR 63.1957(b) have been met. [40 CFR 63.1981(g)(2)]

7. Specific Control Equipment Operating Conditions

Unchanged from **SECTION B**.

SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

ALTERNATE OPERATING SCENARIO 2

Requests for Higher Operating Values (HOV)
When a landfill is unable to maintain a gas collector at temperatures below 145°F, but the gas collector continues to show good gas quality, it may be appropriate to establish a HOV for that gas collector. The gas collector does not have to be part of the final GCCS plan, and means any interior (within the perimeter of the landfill) device used for the collection of landfill gas. This includes vertical wells, horizontal wells, leachate collection risers, interim wells, temporary wells, etc. This alternate operating scenario establishes procedures and minimum requirements for that request.

Emission Unit 001 - Municipal Solid Waste (MSW) Landfill

1. **Operating Limitations**
   The permittee may establish a higher operating temperature value at a particular well. A higher operating value demonstration must be submitted to the Division for approval and must include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration must satisfy both criteria in order to be approved (*i.e.*, neither causing fires nor killing methanogens is acceptable). [40 CFR 63.1958(c)]

   Compliance Demonstration Method:
   To request a HOV, the permittee shall submit, for each individual gas collector, a request for review and approval to the Permit Review Branch of the Division for Air Quality and include the following information:
   i. Description of cover in the area
   ii. Age and type of waste
   iii. Leachate level for a vertical well
   iv. At least 6 months of past data for the well in question and immediately surrounding wells, including:
      1. Temperature
      2. Pressure
      3. % Methane
      4. % Oxygen
      5. % Carbon Dioxide
   v. Carbon Monoxide concentration
   vi. Summary of data and justification indicating that a higher operating value will not cause fire, was not caused by fire, and does not significantly inhibit anaerobic decomposition by killing methanogens.

2. **Emission Limitations**
   Unchanged from **SECTION B**.

3. **Testing Requirements**
   Unchanged from **SECTION B**.

SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

4. Specific Monitoring Requirements

The enhanced monitoring in 40 CFR 63.1961(a)(5) can be stopped once a higher operating value is approved, at which time the monitoring provisions issued with the higher operating value should be followed, or once the measurement of landfill gas temperature at the wellhead is less than or equal to 62.8 degrees Celsius (145 degrees Fahrenheit). [40 CFR 63.1961(a)(5)(ix)]

5. Specific Recordkeeping Requirements

The permittee shall maintain a readily accessible record of all gas collectors operating under an approved HOV, all gas collectors for which operation under a HOV has been requested, and all gas collectors for which operation under a HOV has been denied.

6. Specific Reporting Requirements

Unchanged from **SECTION B**.

7. Specific Control Equipment Operating Conditions

Unchanged from **SECTION B**.

SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

ALTERNATE OPERATING SCENARIO 3

Requests for Decommissioning of Gas Collectors in NSPS/NESHAP Areas
A landfill may request that a gas collector be decommissioned to accommodate declining gas flows, or in other instances as approved by the Division. The alternate operating scenario identifies procedures and minimum requirements for decommissioning a gas collector located in an NSPS/NESHAP area (age of waste is 5 years or more if active/2 years or more if in final cap). The gas collector does not have to be part of the final GCCS plan, and means any interior (within the perimeter of the landfill) device used for the collection of landfill gas. This includes vertical wells, horizontal wells, leachate collection risers, interim wells, temporary wells, etc.

Emission Unit 001 - Municipal Solid Waste (MSW) Landfill

1. **Operating Limitations**
   If approved by the Division, the permittee may decommission a gas collector, cap it, and remove it from service. If approved, the gas collector is no longer considered part of the GCCS and is no longer required to meet the requirements in **SECTION B**.

   Compliance Demonstration Method:
   To request decommissioning of a gas collector, the permittee shall submit, for each individual gas collector, a request for review and approval to the Permit Review Branch of the Division for Air Quality and include the following information:
   i. If the well is part of the GCCS plan submitted and approved pursuant to 40 CFR 63.1981(d):
      1. An updated radius of influence (ROI) demonstration demonstrating that the GCCS will continue to meet the requirements of 40 CFR 63.1959(b)(2)(ii) if the request is approved.
      2. At least 6 months of past monitoring data for the gas collector in question, including:
         A) Temperature
         B) Pressure
         C) % Oxygen/Nitrogen
         D) Surface Scan data
      3. Any exceedance data for the gas collector in question and any surrounding gas collectors.
      4. Rationale for decommissioning of gas collector.
   ii. If the well is not part of the GCCS plan submitted and approved pursuant to CFR 63.1981(d), and there have been any surface scan or monitoring parameter exceedances at this well or at any well that could influence or be influenced by the gas collector referred to in the request. For vertical wells, this includes those wells that have an ROI that intersects the ROI of the well of concern. For horizontal wells or leachate collection risers, this includes those wells whose ROI intersects the line the well piping makes into the landfill:
      1. At least 6 months of past monitoring data for the gas collector in question, including:
         A) Temperature
         B) Pressure
         C) % Oxygen/Nitrogen

SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

2. Surface Scan data
3. Any exceedance data for the gas collector in question and any surrounding gas collectors.
4. Rationale for decommissioning of gas collector.

iii. If the well is not part of the GCCS plan submitted and approved pursuant to 40 CFR 63.1981(d), and there have not been any surface scan or monitoring parameter exceedances at this well or at any well that could influence or be influenced by the gas collector referred to in the request, then the permittee may submit a statement to that effect along with the rationale for decommissioning the gas collector. No additional data is needed.

2. Emission Limitations
Unchanged from **SECTION B**.

3. Testing Requirements
Unchanged from **SECTION B**.

4. Specific Monitoring Requirements
Unchanged from **SECTION B**.

5. Specific Recordkeeping Requirements
The permittee shall maintain a readily accessible record of all gas collectors that have been decommissioned, all gas collectors for which decommissioning has been requested, all gas collectors for which decommissioning has been approved, and all gas collectors for which decommissioning has been denied.

6. Specific Reporting Requirements
Unchanged from **SECTION B**.

7. Specific Control Equipment Operating Conditions
Unchanged from **SECTION B**.

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. The following requirements are predicated upon the approval of the state plan implementing the emission guidelines contained in 40 CFR 60, Subpart Cf which will be published in the Federal Register.
   A. ***Design capacity report.*** The initial design capacity report must be submitted no later than 90 days after the effective date of EPA approval of the state's plan under section 111(d) of the Clean Air Act. The initial design capacity report must contain the following information: [40 CFR 60.38f(a)]
      i. A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by the state, local, or tribal agency responsible for regulating the landfill. [40 CFR 60.38f(a)(1)]
      ii. The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the state, local, or tribal agency responsible for regulating the landfill, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity must be calculated using good engineering practices. The calculations must be provided, along with the relevant parameters as part of the report. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. If the permittee chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site-specific density, which must be recalculated annually. Any density conversions must be documented and submitted with the design capacity report. The state, local, or tribal agency or the Division may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill. [40 CFR 60.38f(a)(2)]

ATTACHMENT A

FORM FOR RECORDING ASBESTOS WASTE SHIPMENTS

<table>
<tr><td rowspan="11">Generator</td><td colspan="2">1. Work site name and mailing address</td><td>Owner’s name</td><td>Owner’s Telephone no.</td></tr>
<tr><td colspan="3">2. Operator’s name and address</td><td>Operator’s Telephone no.</td></tr>
<tr><td colspan="3">3. Waste disposal site (WDS) name, mailing address, and physical site location</td><td>WDS Telephone no.</td></tr>
<tr><td colspan="4">4. Name and address of responsible agency</td></tr>
<tr><td colspan="2">5. Description of materials</td><td>6. Containers
No. Type</td><td>7. Total Quantity
m^3 (yd^3)</td></tr>
<tr><td colspan="2"></td><td></td><td></td></tr>
<tr><td colspan="2"></td><td></td><td></td></tr>
<tr><td colspan="4">8. Special handling instructions and additional information</td></tr>
<tr><td colspan="4">9. OPERATOR’S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and are in all respects in proper condition for transport by highway according to applicable international and government regulations</td></tr>
<tr><td colspan="2">Printed/ typed name & title</td><td>Signature</td><td>Month Day Year</td></tr>
<tr><td rowspan="5">Transporter</td><td colspan="4">10. Transporter 1(acknowledgement of receipt of materials)</td></tr>
<tr><td colspan="2">Printed/ typed name & title, Address and Telephone no.</td><td>Signature</td><td>Month Day Year</td></tr>
<tr><td colspan="4">11. Transporter 2(acknowledgement of receipt of materials)</td></tr>
<tr><td colspan="2">Printed/ typed name & title, Address and Telephone no.</td><td>Signature</td><td>Month Day Year</td></tr>
</table>

<table>
<tr><td rowspan="3">Disposal Site</td><td colspan="3">12. Discrepancy indication space</td></tr>
<tr><td colspan="3">13. Waste disposal site Owner or Operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.</td></tr>
<tr><td>Printed/ typed name & title</td><td>Signature</td><td>Month Day Year</td></tr>
</table>

INSTRUCTIONS

Waste Generator Section (Items 1-9)

1. Enter the name of the facility at which asbestos waste is generated and the address where the facility is located. In the appropriate spaces, also enter the name of the owner of the facility and the owner's phone number.
2. If a demolition or renovation, enter the name and address of the company and authorized agent responsible for performing the asbestos removal. In the appropriate spaces, also enter the number of the operator.
3. Enter the name, address, and physical site location of the waste disposal site (WDS) that will be receiving the asbestos materials. In the appropriate spaces, also enter the phone number of the WDS. Enter "on-site" if the waste will be disposed of on the generator's property.
4. Provide the name and address of the local, State or EPA Regional office responsible for administering the asbestos NESHAP program.
5. Indicate the types of asbestos waste materials generated. If from a demolition or renovation, indicate the amount of asbestos that is
   - Friable asbestos material
   - Non-friable asbestos material
6. Enter the number of the containers used to transport the asbestos materials listed in item 5. Also enter one of the following container codes used in transporting each type of asbestos material (specify any other type of container used if not listed below):
   DM-Metal drums, barrels
   DP- Plastic drums, barrels
   BA-6 mil plastic bags or wrapping
7. Enter the quantities of each type of asbestos material removed in units of cubic meters (cubic yards).
8. Use this space to indicate special transportation, treatment, storage or disposal or Bill of Lading information. If an alternative waste disposal site is designated, note it here. Emergency response telephone numbers or similar information may be included here.
9. The authorized agent of the waste generator must read and then sign and date this certification. The date is the date of the receipt by transporter.

NOTE: The waste generator must retain a copy of this form.

Transporter Section (Items 10 & 11)

10. & 11. Enter name, address, and telephone number of each transporter used, if applicable. Print or type the full name and title of person accepting responsibility and acknowledging receipt of materials as listed on this waste shipment record for transport. Enter date of receipt and signature.

NOTE: The Transporter must retain a copy of this form

Disposal Site Section (Items 12 & 13)

12. The authorized representative of the WDS must note in this space any discrepancy between waste described on this manifest and waste actually received as well as any improperly enclosed or contained waste. Any rejected materials should be listed and destination of those materials provided. A site that converts asbestos-containing material to non-asbestos material is considered a WDS.
13. The signature (by hand) of the authorized WDS agent indicates acceptance and agreement with statements on this manifest except as noted in item 12. The date is the date of signature and receipt of shipment.

NOTE: The WDS must retain a completed copy of this form. The WDS must also send a completed copy to the operator listed in item 2 of this form.