

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

**Draft**

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

**Permittee Name:** Jones Sanitation, LLC  
**Mailing Address:** 3426 US Route 45 South, Mayfield, KY 42066

**Source Name:** West Kentucky Landfill  
**Mailing Address:** 3426 US Route 45 South, Mayfield, KY 42066

**Source Location:** Same as above

**Permit ID:** V-25-002  
**Agency Interest #:** 1551  
**Activity ID:** APE20230005  
**Review Type:** Title V, Operating  
**Source ID:** 21-083-00051

**Regional Office:** Paducah Regional Office  
130 Eagle Nest Drive  
Paducah, KY 42003  
(270) 898-8468

**County:** Graves

**Application  
Complete Date:** September 24, 2023  
**Issuance Date:**  
**Expiration Date:**

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**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-25-002	Renewal	APE20230005	9/24/2023		Renewal Permit; Change to 40 CFR 60, Subpart XXX; Removal of 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
Division	– Kentucky Division for Air Quality
HAP	– Hazardous Air Pollutant
H <sub>2</sub> S	– 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
NMOC	– Nonmethane organic compounds
NO <sub>x</sub>	– Nitrogen oxides
PT	– Total particulate matter
PM <sub>10</sub>	– 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 <sub>2</sub>	– Sulfur dioxide
U.S. EPA	– United States Environmental Protection Agency
VMT	– Vehicle miles traveled
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 after 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 60.764) less than 34 Mg/yr.

**Permitted Design Capacity:** 8,773,159 megagrams

**Construction commenced:** 1960, modified 2004, 2007, and 2022

**Emission Unit 010 – Open Landfill Flare**

**Description:** Open Landfill Flare.

**Maximum capacity:** 1,200 scfm of landfill gas

**Construction commenced:** 2018

**APPLICABLE REGULATIONS:**

**401 KAR 53:010**, *Ambient air quality standards.*

**401 KAR 60:005, Section 2(2)(zzz), 40 C.F.R. 60.760 through 60.769 (Subpart XXX)**, *Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014*

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

**401 KAR 63:015**, *Flares*

**40 CFR 61, Subpart M**, *National Emission Standard for Asbestos*

**PRECLUDED REGULATION:**

**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*

**1. Operating Limitations:**

- a. The permittee must either comply with 40 CFR 60.762(b)(2) or calculate an NMOC emission rate for the landfill using the procedures specified in 40 CFR 60.764. The NMOC emission rate must be recalculated annually, except as provided in 40 CFR 60.767(b)(1)(ii). The owner or operator of an MSW landfill subject to 40 CFR 60, Subpart XXX with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to part 70 or 71 permitting requirements. [40 CFR 60.762(b)]
  - i. If the calculated NMOC emission rate ( $M_{NMOC}$ ) is less than 34 megagrams per year, the permittee must: [40 CFR 60.762(b)(1)]
    - 1) Submit an annual emission report to the Division, except as provided for in 40 CFR 60.767(b)(1)(ii); and [40 CFR 60.762(b)(1)(i)]
    - 2) Recalculate the NMOC emission rate annually using the procedures specified in 40 CFR 60.764(a)(1) until such time as the calculated NMOC emission rate ( $M_{NMOC}$ ) is equal to or greater than 34 megagrams per year, or the landfill is closed. [40 CFR 60.762(b)(1)(ii)]
  - A) If the NMOC emission rate ( $M_{NMOC}$ ), upon initial calculation or annual recalculation required in 40 CFR 60.762(b), is equal to or greater than 34 megagrams per year, the permittee must either: Comply with 40 CFR 60.762(b)(2), calculate NMOC emissions using the next higher tier in 40 CFR

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

- 60.764; or conduct a surface emission monitoring demonstration using the procedures specified in 40 CFR 60.764(a)(6). [40 CFR 60.762(b)(1)(ii)(A)]
- B) If the landfill is permanently closed, a closure notification must be submitted to the Division as provided for in 40 CFR 60.767(e). [40 CFR 60.762(b)(1)(ii)(B)]
- ii. If the calculated NMOC emission rate ( $M_{NMOC}$ ) is equal to or greater than 34 megagrams per year using Tier 1, 2, or 3 procedures, the permittee must either: [40 CFR 60.762(b)(2)]
- 1) **Calculated NMOC Emission Rate.** Submit an initial or revised collection and control system design plan prepared by a professional engineer to the Division as specified in 40 CFR 60.767(c) or (d); calculate NMOC emissions using the next higher tier in 40 CFR 60.764; or conduct a surface emission monitoring demonstration using the procedures specified in 40 CFR 60.764(a)(6). The collection and control system must meet the requirements in 40 CFR 60.762(b)(2)(ii) and (iii). [40 CFR 60.762(b)(2)(i)]
  - 2) **Collection system.** Install and start up a collection and control system that captures the gas generated within the landfill as required by 40 CFR 60.762(b)(2)(ii)(C) or (D) and (b)(2)(iii) within 30 months after: [40 CFR 60.762(b)(2)(ii)]
    - A) The first annual report submitted under 40 CFR 60, Subpart XXX or 40 CFR 62 in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in 40 CFR 60.767(c)(4); or [40 CFR 60.762(b)(2)(ii)(A)]
    - B) The most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in 40 CFR 60.767(c)(4)(iii). [40 CFR 60.762(b)(2)(ii)(B)]
  - 3) **Control system.** Route all the collected gas to a control system that complies with the requirements in either 40 CFR 60.762(b)(2)(iii)(A), (B), or (C). [40 CFR 60.762(b)(2)(iii)]
  - 4) **Operation.** Operate the collection and control device installed to comply with 40 CFR 60, Subpart XXX in accordance with the provisions of 40 CFR 60.763, 60.765, and 60.766; or the provisions of 40 CFR 63.1958, 63.1960, and 63.1961. Once the permittee begins to comply with the provisions of 40 CFR 63.1958, 63.1960, and 63.1961, the permittee must continue to operate the collection and control device according to those provisions and cannot return to the provisions of 40 CFR 60.763, 60.765, and 60.766. [40 CFR 60.762(b)(2)(iv)]

**Compliance Demonstration Method:**

- A. The permittee must calculate the NMOC emission rate ( $M_{NMOC}$ ) using either Equation 1 provided in 40 CFR 60.764(a)(1)(i) or Equation 2 provided in 40 CFR 60.764(a)(1)(ii). Both Equation 1 and Equation 2 may be used if the actual year-to-year solid waste acceptance rate is known, as specified in 40 CFR 60.764(a)(1)(i), for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in 40 CFR 60.764(a)(1)(ii), for part of the life of the landfill. The values to be used in both Equation 1 and Equation 2 are 0.05 per year for  $k$ , 170

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

cubic meters per megagram for  $L_0$ , and 4,000 parts per million by volume as hexane for the  $C_{NMOC}$ . [40 CFR 60.764(a)(1)]

- I. Equation 1 must be used if the actual year-to-year solid waste acceptance rate is known. [40 CFR 60.764(a)(1)(i)]

$$M_{NMOC} = \sum_{i=1}^n 2 k L_0 M_i (e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

$M_{NMOC}$  = Total NMOC emission rate from the landfill, megagrams per year

$k$  = methane generation rate constant, year<sup>-1</sup>

$L_0$  = methane generation potential, cubic meters per megagram solid waste

$M_i$  = mass of solid waste in the  $i^{\text{th}}$  section, megagrams

$t_i$  = age of the  $i^{\text{th}}$  section, years

$C_{NMOC}$  = concentration of NMOC, parts per million by volume as hexane

$3.6 \times 10^{-9}$  = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for  $M_i$  if documentation of the nature and amount of such wastes is maintained.

- II. Equation 2 must be used if the actual year-to-year solid waste acceptance rate is unknown. [40 CFR 60.764(a)(1)(ii)]

$$M_{NMOC} = 2 L_0 R (e^{-kc} - e^{-kt})(C_{NMOC})(3.6 \times 10^{-9})$$

$M_{NMOC}$  = mass emission rate of NMOC, megagrams per year

$L_0$  = methane generation potential, cubic meters per megagram solid waste

$R$  = average annual acceptance rate, megagrams per year

$k$  = methane generation rate constant, year<sup>-1</sup>

$t$  = age of landfill, years

$C_{NMOC}$  = concentration of NMOC, parts per million by volume as hexane

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

$3.6 \times 10^{-9}$  = conversion factor

The mass of nondegradable solid waste may be subtracted from the average annual acceptance rate when calculating a value for  $R$ , if documentation of the nature and amount of such wastes is maintained.

- B. **Tier 1.** The permittee must compare the calculated NMOC mass emission rate ( $M_{NMOC}$ ) to the standard of 34 megagrams per year. [40 CFR 60.764(a)(2)]

- I. If the NMOC emission rate ( $M_{NMOC}$ ) calculated in 40 CFR 60.764(a)(1) is less than 34 megagrams per year, then the permittee must submit an emission rate report according to 40 CFR 60.767(b), and must recalculate the NMOC mass emission rate ( $M_{NMOC}$ ) annually as required under 40 CFR 60.762(b). [40 CFR 60.764(a)(2)(i)]

- II. If the calculated NMOC emission rate as calculated in 40 CFR 60.764(a)(1) is equal to or greater than 34 megagrams per year, then the permittee must either: [40 CFR 60.764(a)(2)(ii)]

- 1) Submit a gas collection and control system design plan within 1 year as specified in 40 CFR 60.767(c) and install and operate a gas collection and

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

- control system within 30 months according to 40 CFR 60.762(b)(2)(ii) and (iii); [40 CFR 60.764(a)(2)(ii)(A)]
- 2) Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the Tier 2 procedures provided in 40 CFR 60.764(a)(3); or [40 CFR 60.764(a)(2)(ii)(B)]
  - 3) Determine a site-specific methane generation rate constant (k) and recalculate the NMOC emission rate using the Tier 3 procedures provided in 40 CFR 60.764(a)(4). [40 CFR 60.764(a)(2)(ii)(C)]
- C. **Tier 2.** Refer to **3. Testing Requirements (a)** for the *Tier 2* test method for determining a site-specific NMOC concentration ( $C_{NMOC}$ ). [40 CFR 60.764(a)(3)]
- I. Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8), the permittee must submit the results according to 40 CFR 60.767(i)(1). [40 CFR 60.764(a)(3)(i)]
  - II. The permittee must recalculate the NMOC mass emission rate using Equation 1 or Equation 2 provided in 40 CFR 60.764(a)(1)(i) or (a)(1)(ii) and using the average site-specific NMOC concentration from the collected samples instead of the default value provided in 40 CFR 60.764(a)(1). [40 CFR 60.764(a)(3)(ii)]
  - III. If the resulting NMOC mass emission rate is less than 34 megagrams per year, then the permittee must submit a periodic estimate of NMOC emissions in an NMOC emission rate report according to 40 CFR 60.767(b)(1), and must recalculate the NMOC mass emission rate annually as required under 40 CFR 60.762(b). The site-specific NMOC concentration must be retested every 5 years using the methods specified in 40 CFR 60.764. [40 CFR 60.764(a)(3)(iii)]
  - IV. If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 34 megagrams per year, the permittee must either: [40 CFR 60.764(a)(3)(iv)]
    - 1) Submit a gas collection and control system design plan within 1 year as specified in 40 CFR 60.767(c) and install and operate a gas collection and control system within 30 months according to 40 CFR 60.762(b)(2)(ii) and (iii); [40 CFR 60.764(a)(3)(iv)(A)]
    - 2) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the Tier 3 procedures specified in 40 CFR 60.764(a)(4); or [40 CFR 60.764(a)(3)(iv)(B)]
    - 3) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in 40 CFR 60.764(a)(6). [40 CFR 60.764(a)(3)(iv)(C)]
- D. **Tier 3.** Refer to **3. Testing Requirements (b)** for the *Tier 3* test method for determining a site-specific methane generation rate constant (k). [40 CFR 60.764(a)(4)]
- I. The permittee must estimate the NMOC mass emission rate ( $M_{NMOC}$ ) using Equation 1 or Equation 2 in 40 CFR 60.764(a)(1)(i) or (a)(1)(ii) and using a site-specific methane generation rate constant (k), and the site-specific NMOC concentration ( $C_{NMOC}$ ) as determined in 40 CFR 60.764(a)(3) instead of the default values (of  $C_{NMOC}$  and k) provided in 40 CFR 60.764(a)(1). The permittee must compare the resulting NMOC mass emission rate ( $M_{NMOC}$ ) to the standard of 34 megagrams per year. [40 CFR 60.764(a)(4)]
  - II. If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration and Tier 3 site-specific methane generation rate is equal to or greater than 34 megagrams per year, the permittee must either: [40 CFR 60.764(a)(4)(i)]

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

- 1) Submit a gas collection and control system design plan within 1 year as specified in 40 CFR 60.767(c) and install and operate a gas collection and control system within 30 months according to 40 CFR 60.762(b)(2)(ii) and (iii); or [40 CFR 60.764(a)(4)(i)(A)]
- 2) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in 40 CFR 60.764(a)(6). [40 CFR 60.764(a)(4)(i)(B)]
- III. If the NMOC mass emission rate is less than 34 megagrams per year, then the permittee must recalculate the NMOC mass emission rate annually using Equation 1 or Equation 2 in 40 CFR 60.764(a)(1) and using the site-specific Tier 2 NMOC concentration and Tier 3 methane generation rate constant and submit a periodic NMOC emission rate report as provided in 40 CFR 60.767(b)(1). The calculation of the methane generation rate constant (k) is performed only once, and the value obtained from this test must be used in all subsequent annual NMOC emission rate calculations. [40 CFR 60.764(a)(4)(ii)]
- E. **Tier 4.** The permittee must demonstrate that surface methane emissions are below 500 parts per million. Surface emission monitoring must be conducted on a quarterly basis using the procedures in **4. Specific Monitoring Requirements (a)**. Tier 4 is allowed only if the permittee can demonstrate that NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2. If both Tier 1 and Tier 2 indicate NMOC emissions are 50 Mg/yr or greater, then Tier 4 cannot be used. In addition, the landfill must meet the criteria in 40 CFR 60.764(a)(6)(viii). [40 CFR 60.764(a)(6)]
  - I. If the permittee seeks to comply with the Tier 4 provisions in 40 CFR 60.764(a)(6), the permittee must maintain records of surface emission monitoring as provided in 40 CFR 60.768(g) and submit a Tier 4 surface emissions report as provided in 40 CFR 60.767(c)(4)(iii). [40 CFR 60.764(a)(6)(iv)]
  - II. If there is any measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the permittee must submit a gas collection and control system design plan within 1 year of the first measured concentration of methane of 500 parts per million or greater from the surface of the landfill according to 40 CFR 60.767(c) and install and operate a gas collection and control system according to 40 CFR 60.762(b)(2)(ii) and (iii) within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2. [40 CFR 60.764(a)(6)(v)]
- F. When calculating emissions for Prevention of Significant Deterioration purposes, the permittee must estimate the NMOC emission rate for comparison to the Prevention of Significant Deterioration major source and significance levels in 40 CFR 51.166 or 52.21 of this chapter using Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (AP-42) or other approved measurement procedures. [40 CFR 60.764(c)]
- b. When the MSW landfill subject to 40 CFR 60, Subpart XXX is closed as defined in 40 CFR 60, Subpart XXX, the permittee is no longer subject to the requirement to maintain an operating permit under 40 CFR part 70 or 71 for the landfill if the landfill is not otherwise subject to the requirements of either 40 CFR part 70 or 71 and if either of the following conditions are met: [40 CFR 60.762(d)]
  - i. The landfill was never subject to the requirement for a control system under 40 CFR 60.762(b)(2); or [40 CFR 60.762(d)(1)]



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

- ii. The permittee meets the conditions for control system removal specified in 40 CFR 60.762(b)(2)(v). [40 CFR 60.762(d)(2)]
- c. The provisions of 40 CFR 60, Subpart XXX apply at all times, including periods of startup, shutdown or malfunction. During periods of startup, shutdown, and malfunction, the permittee must comply with the work practice specified in 40 CFR 60.763(e) in lieu of the compliance provisions in 40 CFR 60.765. [40 CFR 60.765(e)]
- d. 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)]
- e. 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)]
- f. The permittee shall not add liquid other than leachate 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. [To preclude 40 CFR 63, Subpart AAAA]
- g. Upon calculated NMOC emissions equaling or exceeding 34 Mg of NMOC, the permittee shall submit, concurrently with the collection and control system design plan required by 40 CFR 60.767(c)(4), a permit revision application to the Division requesting inclusion of any newly applicable requirements. [401 KAR 52:020, Section 10]

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****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. 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 (f)** and **5. Specific Recordkeeping Requirements (r)**.

**3. Testing Requirements:**

- a. ***Tier 2.*** The permittee must determine the site-specific NMOC concentration ( $C_{NMOC}$ ) using the following sampling procedure. [40 CFR 60.764(a)(3)]
  - i. The permittee must install at least two sample probes per hectare, evenly distributed over the landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The probes should be evenly distributed across the sample area. The sample probes should be located to avoid known areas of nondegradable solid waste.
  - ii. The permittee must collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration ( $C_{NMOC}$ ) using Method 25 or 25C of appendix A of 40 CFR part 60.
    - 1) Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes.
    - 2) If more than the required number of samples are taken, all samples must be used in the analysis.
    - 3) The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of appendix A of 40 CFR 60 by six to convert from  $C_{NMOC}$  as carbon to  $C_{NMOC}$  as hexane.

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

- 4) If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe must be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples must be collected from the header pipe.
- b. **Tier 3.** The site-specific methane generation rate constant (k) must be determined using the procedures provided in Method 2E of appendix A of 40 CFR 60. [40 CFR 60.764(a)(4)]
- c. **Other methods.** The permittee may use other methods to determine the NMOC concentration ( $C_{NMOC}$ ) or a site-specific methane generation rate constant (k) as an alternative to the methods required in 40 CFR 60.764(a)(3) and (a)(4) if the method has been approved by the Administrator. The authority to grant these alternatives is specifically retained by the U.S. EPA and not transferred to the State. [40 CFR 60.764(a)(5); 40 CFR 60.760(b)]
- d. 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.
- e. 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. **Tier 4.** The permittee must demonstrate that surface methane emissions are below 500 parts per million. Surface emission monitoring must be conducted on a quarterly basis using the following procedures. Tier 4 is allowed only if the permittee can demonstrate that NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2. If both Tier 1 and Tier 2 indicate NMOC emissions are 50 Mg/yr or greater,

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

then Tier 4 cannot be used. In addition, the landfill must meet the criteria in 40 CFR 60.764(a)(6)(viii). [40 CFR 60.764(a)(6)]

- i. The permittee must measure surface concentrations of methane along the entire perimeter of the landfill and along a pattern that traverses the landfill at no more than 30-meter intervals using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 40 CFR 60.765(d). [40 CFR 60.764(a)(6)(i)]
  - 1) The permittee must comply with the following instrumentation specifications and procedures for surface emission monitoring devices: [40 CFR 60.765(d)]
    - A. The portable analyzer must meet the instrument specifications provided in section 6 of Method 21 of appendix A of 40 CFR 60, except that “methane” replaces all references to “VOC”. [40 CFR 60.765(d)(1)]
    - B. The calibration gas must be methane, diluted to a nominal concentration of 500 parts per million in air. [40 CFR 60.765(d)(2)]
    - C. To meet the performance evaluation requirements in section 8.1 of Method 21 of appendix A of 40 CFR 60, the instrument evaluation procedures of section 8.1 of Method 21 of appendix A of 40 CFR 60 must be used. [40 CFR 60.765(d)(3)]
    - D. The calibration procedures provided in sections 8 and 10 of Method 21 of appendix A of 40 CFR 60 must be followed immediately before commencing a surface monitoring survey. [40 CFR 60.765(d)(4)]
- ii. The background concentration must be determined by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the landfill. [40 CFR 60.764(a)(6)(ii)]
- iii. Surface emission monitoring must be performed in accordance with Section 8.3.1 of Method 21 of appendix A of 40 CFR 60, except that the probe inlet must be placed no more than 5 centimeters above the landfill surface; the constant measurement of distance above the surface should be based on a mechanical device such as with a wheel on a pole, except as described in 40 CFR 60.764(a)(6)(iii)(A). [40 CFR 60.764(a)(6)(iii)]
  - 1) The permittee must use a wind barrier, similar to a funnel, when onsite average wind speed exceeds 4 miles per hour or 2 meters per second or gust exceeding 10 miles per hour. Average on-site wind speed must also be determined in an open area at 5-minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier must surround the SEM monitor, and must be placed on the ground, to ensure wind turbulence is blocked. SEM cannot be conducted if average wind speed exceeds 25 miles per hour. [40 CFR 60.764(a)(6)(iii)(A)]
  - 2) Landfill surface areas where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations must also be monitored using a device meeting the specifications provided in 40 CFR 60.765(d). [40 CFR 60.764(a)(6)(iii)(B)]
- iv. If after four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the permittee must continue quarterly surface

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

- emission monitoring using the methods specified in 40 CFR 60.764. [40 CFR 60.764(a)(6)(vi)]
- v. If a landfill has installed and operates a collection and control system that is not required by 40 CFR 60, Subpart XXX, then the collection and control system must meet the following criteria: [40 CFR 60.764(a)(6)(viii)]
- 1) The gas collection and control system must have operated for 6,570 out of 8,760 hours preceding the Tier 4 surface emissions monitoring demonstration. [40 CFR 60.764(a)(6)(viii)(A)]
  - 2) During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system must operate as it normally would to collect and control as much landfill gas as possible. [40 CFR 60.764(a)(6)(viii)(B)]
- b. The permittee shall perform a qualitative observation of visible emissions from each flare daily, 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 from the flare or, if the flare is shut down within 24 hours, immediately upon startup of the flare. If the resulting opacity measurement exceeds 20%, 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]
- c. The permittee shall monitor waste acceptance rate on a daily basis. [401 KAR 52:020, Section 10]
- d. 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]
- e. The permittee shall monitor hours of operation of the landfill gas collection and control system. [401 KAR 52:020, Section 10]
- f. The permittee shall quarterly collect and test for H<sub>2</sub>S 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 (d)**. The permittee shall use the annual average H<sub>2</sub>S concentration data when reporting H<sub>2</sub>S and SO<sub>2</sub> emissions from the landfill and flare. [401 KAR 52:020, Section 10]
- g. 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]
- h. 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

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

results in no visible fugitive dust emissions beyond the lot line of the property. [401 KAR 52:020, Section 10]

- i. The permittee shall monitor, annually, uncaptured flow of landfill gas to the atmosphere. The permittee shall calculate uncaptured flow according to the following procedure: [401 KAR 52:020, Section 10]
- i. The permittee shall calculate uncaptured flow of landfill gas from the Municipal Solid Waste (MSW) Landfill by using the following equation:

$$Q_{\text{uncaptured}} = \frac{(Q_{FL}) * (1 - \%_{\text{overall capture}})}{\%_{\text{overall capture}}}$$

Where:

- $Q_{\text{uncaptured}}$  = landfill gas reported as fugitive, MMscf  
 $Q_{FL}$  = landfill gas directed to flare (EU 010), MMscf  
 $\%_{\text{overall capture}}$  = overall landfill gas collection efficiency, %  
 MMscf = million standard cubic feet

- ii. The capture efficiency of the GCCS during system operation shall be determined by the procedure in Table HH-3 to 40 CFR 98, Subpart HH. The overall capture efficiency for use in the above calculation shall be determined by the following equation:

$$\%_{\text{overall capture}} = \%_{\text{system capture}} * \frac{t_{\text{operational}}}{t_{\text{total}}}$$

Where:

- $\%_{\text{system capture}}$  = capture efficiency determined under 40 CFR 98, Subpart HH  
 $t_{\text{operational}}$  = hours system was operational  
 $t_{\text{total}}$  = total hours in time period

### 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 which triggered 40 CFR 60.762(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 60.768(a)]
- b. If the permittee seeks to demonstrate that site-specific surface methane emissions are below 500 parts per million by conducting surface emission monitoring under the Tier 4 procedures specified in 40 CFR 60.764(a)(6), the permittee must keep for at least 5 years up-to-date, readily accessible records of all surface emissions monitoring and information related to monitoring instrument calibrations conducted according to sections 8 and 10 of Method 21 of appendix A of 40 CFR 60, including all of the following items: [40 CFR 60.768(g)]
  - i. Calibration records: [40 CFR 60.768(g)(1)]
    - 1) Date of calibration and initials of operator performing the calibration. [40 CFR 60.768(g)(1)(i)]
    - 2) Calibration gas cylinder identification, certification date, and certified concentration. [40 CFR 60.768(g)(1)(ii)]

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

- 3) Instrument scale(s) used. [40 CFR 60.768(g)(1)(iii)]
- 4) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value. [40 CFR 60.768(g)(1)(iv)]
- 5) If the permittee their own calibration gas, a description of the procedure used. [40 CFR 60.768(g)(1)(iv)]
- ii. Digital photographs of the instrument setup, including the wind barrier. The photographs must be time and date-stamped and taken at the first sampling location prior to sampling and at the last sampling location after sampling at the end of each sampling day, for the duration of the Tier 4 monitoring demonstration. [40 CFR 60.768(g)(2)]
- iii. Timestamp of each surface scan reading: [40 CFR 60.768(g)(3)]
  - 1) Timestamp should be detailed to the nearest second, based on when the sample collection begins. [40 CFR 60.768(g)(3)(i)]
  - 2) A log for the length of time each sample was taken using a stopwatch (e.g., the time the probe was held over the area). [40 CFR 60.768(g)(3)(ii)]
- iv. Location of each surface scan reading. The permittee must determine the coordinates using an instrument with an accuracy of at least 4 meters. Coordinates must be in decimal degrees with at least five decimal places. [40 CFR 60.768(g)(4)]
- v. Monitored methane concentration (parts per million) of each reading. [40 CFR 60.768(g)(5)]
- vi. Background methane concentration (parts per million) after each instrument calibration test. [40 CFR 60.768(g)(6)]
- vii. Adjusted methane concentration using most recent calibration (parts per million). [40 CFR 60.768(g)(7)]
- viii. For readings taken at each surface penetration, the unique identification location label matching the label specified in 40 CFR 60.768(d). [40 CFR 60.768(g)(8)]
- ix. Records of the operating hours of the gas collection system for each destruction device. [40 CFR 60.768(g)(9)]
- c. Any records required to be maintained by 40 CFR 60, Subpart XXX that are submitted electronically via the EPA's CDX may be maintained in electronic format. [40 CFR 60.768(i)]
- d. 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 (e)(i)**. [40 CFR 61.154(e)(1)(iv)]
    - 5) The date of the receipt. [40 CFR 61.154(e)(1)(v)]

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

- 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 (e)(ii)**. [40 CFR 61.154(e)(3)]
- e. 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)]
- f. Upon closure, the permittee shall comply with all the provisions of 40 CFR 61.151. [40 CFR 61.154(g)]
- g. 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)]
- h. The permittee shall maintain records of the daily waste acceptance rate. [401 KAR 52:020, Section 10]
- i. 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]
- j. 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.
- k. The permittee shall maintain a log of the qualitative visual observations for flare(s) 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]
- l. 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.



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

- ii. The measurements and calculations identified above for the twelve (12) prior months and the system overall 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.
- m. The permittee shall maintain records of all H<sub>2</sub>S emission data, including gas detection tube and analytical sample results. [401 KAR 52:020, Section 10]

**6. Specific Reporting Requirements:**

- a. ***Design capacity report.*** The permittee must submit an initial design capacity report to the Division. [40 CFR 60.767(a)]
  - i. ***Submission.*** The initial design capacity report fulfills the requirements of the notification of the date construction is commenced as required by 40 CFR 60.7(a)(1) and must be submitted no later than ninety days after the date of commenced construction, modification, or reconstruction. [40 CFR 60.767(a)(1)]
  - ii. ***Initial design capacity report.*** The initial design capacity report must contain the following information: [40 CFR 60.767(a)(2)]
    - 1) 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 60.767(a)(2)(i)]
    - 2) 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, tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill. [40 CFR 60.767(a)(2)(ii)]
  - iii. ***Amended design capacity report.*** An amended design capacity report must be submitted to the Division 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 60.768(f). [40 CFR 60.767(a)(3)]
- b. ***NMOC emission rate report.*** The permittee must submit an NMOC emission rate report following the procedure specified in 40 CFR 60.767(i)(2) to the Division initially and annually thereafter, except as provided for in 40 CFR 60.767(b)(1)(ii). The Division may

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

request such additional information as may be necessary to verify the reported NMOC emission rate. [40 CFR 60.767(b)]

- i. The NMOC emission rate report must contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in 40 CFR 60.764(a). [40 CFR 60.767(b)(1)]
    - 1) The initial NMOC emission rate report may be combined with the initial design capacity report required in 40 CFR 60.767(a) and must be submitted no later than ninety days after the date of commenced construction, modification, or reconstruction. Subsequent NMOC emission rate reports must be submitted annually thereafter, except as provided for in 40 CFR 60.767(b)(1)(ii). [40 CFR 60.767(b)(1)(i)]
    - 2) If the estimated NMOC emission rate as reported in the annual report to the Division is less than 34 megagrams per year in each of the next 5 consecutive years, the permittee may elect to submit, following the procedure in 40 CFR 60.767(i)(2), an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate must include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based must be provided to the Division. This estimate must be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate must be submitted to the Division. The revised estimate must cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate. [40 CFR 60.767(b)(1)(ii)]
  - ii. The NMOC emission rate report must include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions. [40 CFR 60.767(b)(2)]
  - iii. 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 60.762(b)(2), during such time as the collection and control system is in operation and in compliance with 40 CFR 60.763 and 60.765. [40 CFR 60.767(b)(3)]
- c. ***Collection and control system design plan.*** The permittee subject to the provisions of 40 CFR 60.762(b)(2) must submit a collection and control system design plan to the Division for approval according to the schedule in 40 CFR 60.767(c)(4). The collection and control system design plan must be prepared and approved by a professional engineer and must meet the following requirements: [40 CFR 60.767(c)]
- i. The collection and control system as described in the design plan must meet the design requirements in 40 CFR 60.762(b)(2). [40 CFR 60.767(c)(1)]
  - ii. The collection and control system design plan must include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 40 CFR 60.763 through 60.768 proposed by the permittee. [40 CFR 60.767(c)(2)]
  - iii. The collection and control system design plan must either conform with specifications for active collection systems in 40 CFR 60.769 or include a demonstration to the Division's satisfaction of the sufficiency of the alternative provisions to 40 CFR 60.769. [40 CFR 60.767(c)(3)]

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

- iv. The permittee must submit a collection and control system design plan to the Division for approval within 1 year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year, except as follows: [40 CFR 60.767(c)(4)]
- 1) If the permittee elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in 40 CFR 60.764(a)(3) and the resulting rate is less than 34 megagrams per year, annual periodic reporting must be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 34 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, must be submitted, following the procedures in 40 CFR 60.767(i)(2), within 180 days of the first calculated exceedance of 34 megagrams per year. [40 CFR 60.767(c)(4)(i)]
  - 2) If the permittee elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant  $k$ , as provided in Tier 3 in 40 CFR 60.764(a)(4), and the resulting NMOC emission rate is less than 34 Mg/yr, annual periodic reporting must be resumed. The resulting site-specific methane generation rate constant  $k$  must be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of 40 CFR 60.764(a)(4) and the resulting site-specific methane generation rate constant  $k$  must be submitted, following the procedure specified in 40 CFR 60.767(i)(2), to the Division within 1 year of the first calculated emission rate equaling or exceeding 34 megagrams per year. [40 CFR 60.767(c)(4)(ii)]
  - 3) If the permittee elects to demonstrate that site-specific surface methane emissions are below 500 parts per million methane, based on the provisions of 40 CFR 60.764(a)(6), then the permittee must submit annually a Tier 4 surface emissions report as specified in this paragraph following the procedure specified in 40 CFR 60.767(i)(2) until a surface emissions readings of 500 parts per million methane or greater is found. The Division may request such additional information as may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report must clearly identify the location, date and time (to nearest second), average wind speeds including wind gusts, and reading (in parts per million) of any value 500 parts per million methane or greater, other than non-repeatable, momentary readings. For location, the permittee must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. The Tier 4 surface emission report must also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 Mg/yr of NMOC. [40 CFR 60.767(c)(4)(iii)]
    - A. The initial Tier 4 surface emissions report must be submitted annually, starting within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site-specific surface methane emissions are below 500 parts per million methane, and following the procedure specified in 40 CFR 60.767(i)(2). [40 CFR 60.767(c)(4)(iii)(A)]
    - B. The Tier 4 surface emissions report must be submitted within 1 year of the first measured surface exceedance of 500 parts per million methane, following the procedure specified in 40 CFR 60.767(i)(2). [40 CFR 60.767(c)(4)(iii)(B)]

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

- 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 60.767(c)(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 60.767(c)(5)]
  - vi. Upon receipt of an initial or revised design plan, the Division must review the information submitted under 40 CFR 60.767(c)(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. If the Division does not approve or disapprove the design plan, or does not request that additional information be submitted within 90 days of receipt, then the permittee may continue with implementation of the design plan, recognizing they would be proceeding at their own risk. [40 CFR 60.767(c)(6)]
  - vii. If the owner or operator chooses to demonstrate compliance with the emission control requirements of 40 CFR 60, Subpart XXX using a treatment system as defined in 40 CFR 60, Subpart XXX, then the permittee must prepare a site-specific treatment system monitoring plan as specified in 40 CFR 60.768(b)(5). [40 CFR 60.767(c)(7)]
- d. **Tier 4 notification.** The permittee must provide a notification of the date(s) upon which the permittee intends to demonstrate site-specific surface methane emissions are below 500 parts per million methane, based on the Tier 4 provisions of 40 CFR 60.764(a)(6). The landfill must also include a description of the wind barrier to be used during the SEM in the notification. Notification must be postmarked not less than 30 days prior to such date. Notification must be submitted to the Field Operations Branch listed on the front of this permit. [40 CFR 60.767(l)(1)]
- i. If there is a delay to the scheduled Tier 4 SEM date due to weather conditions, including not meeting the wind requirements in 40 CFR 60.764(a)(6)(iii)(A), the permittee shall notify the Division's Field Operations Branch listed on the front of this permit by email or telephone no later than 48 hours before any delay or cancellation in the original test date, and arrange an updated date with the Division by mutual agreement. [40 CFR 60.767(l)(2)]
- e. 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 of Air

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

- 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 60.154(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), and if different, the Division of 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)]
  - f. 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)]
  - g. 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)]
  - h. The permittee shall include the results of the quarterly H<sub>2</sub>S gas detection tube measurements taken during the semi-annual period in the semi-annual reports required by **SECTION F**.
  - i. The permittee shall include the results of the annual analytical H<sub>2</sub>S 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**.

**7. Specific Control Equipment Operating Conditions:**

- a. For the open flare (EP 010), the permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment: [401 KAR 52:020, Section 10]
  - 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.
  - ii. A device that records flow to and bypass of the flare (if applicable). The permittee shall:
    - 1) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; and

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

- 2) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.
- b. The permittee shall operate the control or treatment system at all times when the collected gas is routed to the system. [401 KAR 52:020, Section 10]
- c. Refer to **SECTION E**.

## **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:** 109,075 VMT/yr paved, 26,095 VMT/yr unpaved

**Construction Commenced:** 1960

**Control Devices:** Water trucks

### **Emission Unit 005 – Site Construction/Operation**

**Description:** Material handling including equipment operations of bulldozer(s), compactor(s), excavator(s) and loader(s), soil material and soil covering operations.

**Maximum Capacity:** 72,000 tons/yr of cover material, 15,626 hours/yr for all equipment

**Construction Commenced:** 1994

**Control Devices:** Wetting of Material

### **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 suitable chemicals for control of dust in the demolition of existing buildings or structures, 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. 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)]
  - 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 material from a paved street to which earth or other material has been transported by trucking or earth moving equipment or erosion by water. [401 KAR 63:010, Section 3(1)(f)]

#### **Compliance Demonstration Method:**

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

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

- 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. A person 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(3)]

**2. Emission Limitations:**

A person 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 Method:**

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]



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

- 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**.

**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 012 - 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:** 1,000 tons per year of liquid waste

**Construction Commenced:** 2003

**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; 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. 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)]
- c. The permittee shall not mix liquid industrial wastes or combine dissimilar or incompatible loads in the solidification process. [401 KAR 63:020]

#### **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)]
- 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

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

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 Cabinet.

### 4. Specific Monitoring Requirements:

- a. 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, prior to mixing, 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.
- b. 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:

$HAP_{individual_{vx}}$  = 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:

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

Where:

$HAP_{individual_{sx}}$  = Total emissions of the individual non-volatile HAP in each waste during month  $x$  in tons/month

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

$C_{max}$	= 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:

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

And:

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

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 $x$

- c. 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:

- The permittee shall maintain records of the items listed in 4. Specific Monitoring Requirements, above.
- The permittee shall maintain a log of the following: [401 KAR 52:020, Section 10]
  - Any Reference Method 22 performed and field records identified in Reference Method 22;
  - Any corrective action taken and the results.

### 6. Specific Reporting Requirements:

- 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]
- Refer to **SECTION F.6.**

**SECTION C - INSIGNIFICANT ACTIVITIES**

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

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. Leachate Storage Tanks – EU 006 (261,000 gallons total)	401 KAR 63:020
2. Small Propane Heaters	401 KAR 63:020
3. Various Small Diesel Fuel Storage Tanks (max of 1,000 gal)	401 KAR 63:020
4. Non-Road Diesel-Powered Storm Water Pump (80 HP)	401 KAR 63:020
5. Non-Road Diesel Backup Generator (90 HP)	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. Opacity and NMOC 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 with 24 hours of the occurrence.
  - b. For emissions of any regulated air pollutant, excluding those listed in F.8.a., that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
  - c. All deviations from permit requirements, including those previously reported, shall be included in the semiannual report required by F.6.
9. Pursuant to 401 KAR 52:020, Title V permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
  - a. Identification of the term or condition;
  - b. Compliance status of each term or condition of the permit;
  - c. Whether compliance was continuous or intermittent;
  - d. The method used for determining the compliance status for the source, currently and over the reporting period.

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

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

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

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

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

## SECTION G - GENERAL PROVISIONS

### 1. General Compliance Requirements

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

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

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

**SECTION G - GENERAL PROVISIONS (CONTINUED)**

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

## SECTION G - GENERAL PROVISIONS (CONTINUED)

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

### 2. Permit Expiration and Reapplication Requirements

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

### 3. Permit Revisions

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

**SECTION G - GENERAL PROVISIONS (CONTINUED)****4. Construction, Start-Up, and Initial Compliance Demonstration Requirements**

No construction authorized by permit V-25-002.

**5. Testing Requirements**

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

**6. Acid Rain Program Requirements**

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

**7. Emergency Provisions**

- a. Pursuant to 401 KAR 52:020, Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission

**SECTION G - GENERAL PROVISIONS (CONTINUED)**

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

## **SECTION G - GENERAL PROVISIONS (CONTINUED)**

### **9. Risk Management Provisions**

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



## **SECTION H - ALTERNATE OPERATING SCENARIOS**

None

## **SECTION I - COMPLIANCE SCHEDULE**

N/A

# ATTACHMENT A

## FORM FOR RECORDING ASBESTOS WASTE SHIPMENTS

<b>Generator</b>	1. Work site name and mailing address		Owner's name		Owner's Telephone no.	
	2. Operator's name and address					Operator's Telephone no.
	3. Waste disposal site (WDS) name, mailing address, and physical site location					WDS Telephone no.
	4. Name and address of responsible agency					
	5. Description of materials		6. Containers No.            Type		7. Total Quantity m <sup>3</sup> (yd <sup>3</sup> )	
	8. Special handling instructions and additional information					
	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					
Printed/ typed name & title		Signature		Month Day Year		
<b>Transporter</b>	10. Transporter 1(acknowledgement of receipt of materials)					
	Printed/ typed name & title, Address and Telephone no.		Signature		Month Day Year	
	11. Transporter 2(acknowledgement of receipt of materials)					
	Printed/ typed name & title, Address and Telephone no.		Signature		Month Day Year	

Disposal Site	12. Discrepancy indication space		
	13. Waste disposal site Owner or Operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.		
	Printed/ typed name & title	Signature	Month Day Year

### 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.