

Facility ID: 1409030593 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 1409030593 Emissions Unit ID: P001 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (a) None.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P001 - Closed MSW/CDD Landfill with Gas Collection System and Enclosed Flare	OAC rule 3745-31-05(A)(3) (PTI 14-03423)	Particulate emissions (PE) shall not exceed 0.80 pound per hour and 3.5 tons per year. Particulate matter 10 microns and less in diameter (PM10) emissions shall not exceed 0.80 pound per hour and 3.5 tons per year. Sulfur dioxide (SO2) emissions shall not exceed 0.85 pound per hour and 3.7 tons per year. Nitrogen oxides (NOx) emissions shall not exceed 3.1 pounds per hour and 13.4 tons per year. Carbon monoxide (CO) emissions shall not exceed 15.3 pounds per hour and 67 tons per year. Volatile organic compound (VOC) emissions shall not exceed 0.97 pound per hour and 4.2 tons per year. Hydrogen chloride (HCl) emissions shall not exceed 0.59 pound per hour and 2.6 tons per year. See terms and conditions A.2.a, A.2.b, A.2.c, and B.1 through B.4. Visible particulate emissions from the flare shall not exceed 10 percent opacity, as a six-minute average. The requirements of this rule also include compliance with the requirements of OAC rule 3745-19, OAC rule 3745-21-08, OAC rule 3745-20-07, and 40 CFR Part 61, Subpart M.
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-19	See term and condition B.5.
	OAC rule 3745-21-08(B)	See term and condition A.2.e.
	40 CFR Part 61, Subpart M and OAC rule 3745-20-07	See terms A.2.f and A.2.g.

2. Additional Terms and Conditions

- (a) Gas Collection System
 - Design, construction, and siting of the gas extraction wells and collection system shall be in accordance

with the Bobmeyer Road Landfill PTI application submitted March 8, 1994, and the standard industry methods and practices currently in use. In addition, the gas collection system shall:

- i. Be designed to handle the maximum expected flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;
- ii. Collect gas from each area of the landfill in which refuse has been placed for a period of 2 years or more when the adjacent gas monitoring probes indicate offsite migration; and
- iii. Collect gas at a sufficient extraction rate.

Control System

All landfill gas collected shall be routed to the control system (enclosed smokeless flare) designed and operated, within the parameter ranges demonstrated in the initial performance test or the most recent performance test that demonstrated compliance, to reduce NMOCs by 98 weight-percent or to reduce outlet NMOC concentration to 20 ppm (as hexane) by volume at three percent oxygen, or less.

The equipment that constitutes the gas collection and control system shall be properly maintained and kept in good operating condition at all times. The equipment shall be operated and maintained by personnel properly trained in its operation.

The hourly emission limitations outlined in Section A.1 are based on the emission unit's potential to emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these limits.

The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 by committing to comply with the best available technology requirements established in Permit to Install 14-03423.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee shall comply with one of the following requirements for this inactive waste disposal site containing asbestos:

- i. discharge no visible emissions from the inactive waste disposal site; or
- ii. cover the asbestos-containing waste material with at least six inches of compacted nonasbestos-containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material; or
- iii. cover the asbestos-containing waste material with at least two feet of compacted nonasbestos-containing material, and maintain the cover to prevent exposure of the asbestos-containing waste material.

Unless a natural barrier adequately deters access by the general public to the inactive asbestos waste disposal site, the permittee shall install and maintain warning signs and fencing as follows, or comply with OAC rule 3745-20-07(A)(2) or (A)(3) of this rule:

- i. Display warning signs at all entrances and at intervals of three hundred feet or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited. The warning signs must:
 - (a) be posted in such a manner and location that a person can easily read the legend; and
 - (b) conform to the requirements for a twenty-inch by fourteen-inch upright format warning sign and display the following legend in the lower panel with letter sizes of at least one inch sans serif. Spacing between any two lines must be at least equal to the height of the upper of the two lines:

ASBESTOS WASTE DISPOSAL SITE
DO NOT CREATE DUST
BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH
- ii. Fence the perimeter of the site in a manner adequate to deter access by the general public.

Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a gas collection system with an enclosed flare.

B. Operational Restrictions

1. Whenever the enclosed flare is in operation, a temperature of at least 1400 degrees Fahrenheit (or the temperature during the most recent compliance test which demonstrated compliance with the NMOC limits) must be maintained.
2. In the event the control system detects a no flame condition which cannot be immediately restarted, the gas collection system shall automatically shut down the flow of landfill gas.
3. The skin temperature of the flare shroud within four feet of all the source test ports shall not exceed 250 degrees Fahrenheit. If a heat shield is required to meet the requirement, its design shall be approved by the appropriate Ohio EPA District Office or local air agency prior to its construction. The heat shield, if required to meet the temperature requirement, shall be in place whenever a source test is conducted for the OhioEPA.

4. Any section of landfill material exposed during construction shall be covered as soon as possible once construction of that section is complete.
5. The permittee shall not cause or allow any open burning at this location in violation of OAC Chapter 3745-19.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the flare when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. Recording devices shall be synchronized based on the time of day.

The permittee shall collect and record the following information for each day:

- a. all 3-hour blocks of time during which the average combustion temperature within the enclosed flare, when the emissions unit was in operation, was less than 1400 degrees Fahrenheit; and
 - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
2. The permittee shall maintain monthly records of the total emissions, in tons, for NO_x, PE/PM₁₀, CO, SO₂, VOC, and HCl in order to monitor compliance with the annual emission limitations.
 3. The permittee shall operate and maintain a temperature monitor and recorder which measures and records the skin temperature of the flare shroud when emissions testing is being conducted for the flare. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
 4. The permittee shall maintain records of the location, depth and area, and quantity in cubic yards of all asbestos-containing waste materials within the disposal site, on a map or diagram of the disposal area.
 5. The permit to install for this emissions unit P001 was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Hydrogen chloride
 TLV (ug/m³): 2200
 Maximum Hourly Emission Rate (lbs/hr): 0.59
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.45
 MAGLC (ug/m³): 52.4

Pollutant: Toluene
 TLV (ug/m³): 188,400
 Maximum Hourly Emission Rate (lbs/hr): 0.37
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.28
 MAGLC (ug/m³): 4486

6. Physical changes to or in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled: and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
7. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.
8. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

- b. documentation of it's evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit semi-annual temperature deviation reports to the Hamilton County Department of Environmental Services which identify all 3-hour blocks of time during which the average flare temperature is less than 1400 degrees Fahrenheit (or the temperature during the most recent compliance test which demonstrated compliance). This report shall contain, at a minimum, the date, time of occurrence, cause, explanation, and corrective actions taken for any times when the temperature falls below the limit established during the initial performance test. If no deviation has occurred, the permittee shall submit a statement to that effect. Reports shall be submitted by January 31 and July 31 of each year and shall address the data obtained during the previous semi-annual period (July through December and January through June, respectively).
2. The permittee shall submit annual reports that specify the total PE/PM10, SO2, NOx, CO, VOC, and HCl emissions from this emissions unit for the previous calendar year to the Hamilton County Department of Environmental Services. These reports shall be submitted by January 31st of each year.
3. The permittee shall submit, upon closure of the facility, a copy of the records of the asbestos waste disposal locations and quantities to the appropriate Ohio EPA District Office or local air agency.
4. The permittee shall notify the appropriate Ohio EPA District Office or local air agency 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 at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. The following information shall be included in the notice:
 - a. Scheduled starting and completion dates.
 - b. Reason for disturbing the waste.
 - c. 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 Director may require changes in the proposed emission control procedures).
 - d. Location of any temporary storage site and the final disposal site.

E. Testing Requirements

1. Compliance with the emission limitations specified in Section A.1 of these terms and conditions shall be determined by the following methods:
Emission Limitations:

PE shall not exceed 0.80 pound per hour;
 PM10 emissions shall not exceed 0.80 pound per hour;
 SO2 emissions shall not exceed 0.85 pound per hour;
 NOx emissions shall not exceed 3.1 pounds per hour;
 CO emissions shall not exceed 15.3 pounds per hour;
 VOC emissions shall not exceed 0.97 pound per hour; and
 HCl emissions shall not exceed 0.59 pound per hour.

Applicable Compliance Method:

The hourly emission limitations are based upon the emission unit's potential to emit and the permittee's emissions data and technical analysis found in the application for PTI 14-03423, submitted November 19, 2004.

The permittee demonstrated compliance with the hourly CO, VOC, and HCl emission limitation based upon the results of the initial emission testing required in Section E.2 below. If required, the permittee shall demonstrate compliance with the hourly CO, VOC, and HCl emission limits through additional emission tests performed in accordance to the methods specified in Section E.2.

If required, the permittee shall demonstrate compliance with the hourly PE/PM10 emission limitation through emission tests performed in accordance with Methods 1-5 of 40 CFR Part 60, Appendix A.

If required, the permittee shall demonstrate compliance with the hourly NOx emission limitation through emission tests performed in accordance with Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.

If required, the permittee shall demonstrate compliance with the hourly SO2 emission limitation through emission tests performed in accordance with Methods 1-4 and 6 of 40 CFR Part 60, Appendix A.

Emission Limitations:

PE shall not exceed 3.5 tons per year;
 PM10 emissions shall not exceed 3.5 tons per year;
 SO2 emissions shall not exceed 3.7 tons per year;
 NOx emissions shall not exceed 13.4 tons per year;
 CO emissions shall not exceed 67 tons per year;
 VOC emissions shall not exceed 4.2 tons per year; and
 HCl emissions shall not exceed 2.6 tons per year.

Applicable Compliance Method:

Compliance with the annual NOx, CO, VOC, PE/PM10, and SO2 emission limitations specified above shall be determined by the record keeping requirements specified in Section C.2.

Emissions Limitation:

Visible PE from the flare shall not exceed 10 percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Test Method 9.

2. The permittee has conducted initial emission testing for this emissions unit in accordance with the following requirements:
 - a. Emission testing shall be conducted within 90 days of commencing operation of the gas collection system and enclosed flare (initial performance testing was conducted June 4, 1998).
 - b. Emission testing shall be conducted to demonstrate compliance with the CO emission limits, HCl emission limits, VOC emission limits, and the NMOC control efficiency requirement.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for carbon monoxide, Method 10 of 40 CFR Part 60, Appendix A; for hydrogen chloride, Method 26 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Hamilton County Department of Environmental Services.
 - d. The following test method shall be employed to demonstrate compliance with the VOC emission limit and NMOC control efficiency: Method 25C or 18 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Hamilton County Department of Environmental Services.
 - e. Tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services.

The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s).

Failure to submit such notification for review and approval prior to the test(s) may result in the Hamilton County Department of Environmental Services refusal to accept the results of the emission test(s).

Personnel from the Hamilton County Department of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

F. **Miscellaneous Requirements**

1. None