

Facility ID: 0857103154 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.

Fahrenheit.

3. After the initial performance test is completed, the average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is operation, shall not be more than 50 oF below the average temperature during the most recent emissions test that demonstrated compliance.
4. The flare control system shall be operated at all times when gas is directed to the flare.
5. The net heating value of the gas being combusted shall be 200 Btu/scf or greater except during periods, not to exceed 30 minutes, when only the carbon dioxide vent stream is flowing through the flare.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain daily records of the amount of landfill gas processed, on a dry basis.
2. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer 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 manufacturers recommendations, with any modifications deemed necessary by the permittee.
3. The permittee shall collect and record the following information each day:
 - a. Prior to the completion of the initial performance test, all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was below 1,350 degrees Fahrenheit;
 - b. Following the completion of the initial performance test, all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was below the average temperature during the most recent emissions test that demonstrated compliance; and,
 - c. A log of the downtime for the thermal oxidizer and the thermal oxidizer monitoring and recording equipment, when the emissions unit was in operation.
4. The permittee shall record all periods of operation during which a flame was not present on the flare control system when gas is directed to the flare.
5. During periods of start-up, or any other time, when the permittee routes landfill gas to the flare control system, the permittee shall maintain a record of the quantity of landfill gas burned and the length of time during which landfill gas was routed to the flare system.
6. The permittee shall install, calibrate, maintain, and operate gas flow measuring devices that record the gas flow rate to the processing and the gas flow out of the plant.
7. The permittee shall keep for at least 5 years up-to-date readily accessible records of the following information for each emissions unit:
 - a. continuous records of the equipment operating parameters.
 - b. records for any periods of operation during which the parameter boundaries established during the most recent performance test and exceeded; and,
 - c. records of all visible emissions readings, heat content determinations, flow rate measurements, exit velocity determinations made during the initial performance test, and all continuous records of the flare pilot flame.
8. The permittee shall keep up-to-date, readily accessible records for the life of the control equipment of the data measured during the initial performance test of compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.
9. The permittee shall maintain records of the duration, including the date and time, of any periods during which only the carbon dioxide vent stream is flowing through the flare.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all days during which more than 4.5 million standard cubic feet of landfill gas, on a dry basis, was processed by these emissions units.
2. The permittee shall submit quarterly deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified above.
3. The permittee shall submit quarterly deviation (excursion) reports which identify each period during which the flame was not present on the flare control system when gas is directed to the flare.
4. The permittee shall notify the Director (RAPCA) of any periods greater than 30 minutes when only the CO2 vent stream is flowing through the flare. This notification shall include a copy of such record and shall be submitted to the Director (RAPCA) within 45 days after the exceedance occurs.
5. Any breakdown or malfunction of the thermal oxidizer and/or flare resulting in the emission of uncontrolled process gas or raw landfill gas shall be reported to the Director (RAPCA) within one hour after the occurrence or as soon as reasonably possible, in accordance with the requirements specified in OAC rule 3745-15-06, and immediate remedial measures shall be undertaken to correct the problem and prevent further emissions to the atmosphere.

E. Testing Requirements

1. Compliance with the emission limitation(s) in section A.1 of these terms and conditions shall be determined in

accordance with the following method(s):

- a. Emission Limitation-
98% weight-percent destruction of NMOC

Applicable Compliance Method-
Compliance shall be determined based on the results of stack testing conducted in accordance with U.S. EPA Reference Methods 18, 25 and/or 25A of 40 CFR Part 60, Appendix A.
 - b. Emission Limitation-
1.2 lbs/hour NMOC

Applicable Compliance Method-
Compliance shall be determined based on the results of stack testing conducted in accordance with U.S. EPA Reference Methods 18, 25 and/or 25A of 40 CFR Part 60, Appendix A.
 - c. Emission Limitation-
5.26 TPY NMOC

Applicable Compliance Method-
The 5.26 TPY limitation was developed by multiplying the 1.2 lbs/hour limitation by the maximum operating schedule of 8,760 hours per year, divided by 2,000 pounds per ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance will also be shown with the annual limitation.
 - d. Emission Limitation-
1.2 lbs/hour HAP

Applicable Compliance Method-
Compliance shall be determined using the latest version of the U.S. EPA Landfill Air Emissions Estimation Model for the development of this permit, version 1.1 of U.S. EPA Landfill Air Emissions Estimation Model Program was utilized. It is assumed that the destruction of HAPs will be accomplished by the thermal oxidizer and that all collected gas is routed to the landfill gas processing plant.
 - e. Emission Limitation-
5.26 TPY HAP

Applicable Compliance Method-
Compliance shall be determined using the latest version of the U.S. EPA Landfill Air Emissions Estimation Model for the development of this permit, version 1.1 of U.S. EPA Landfill Air Emissions Estimation Model Program was utilized. The 5.26 TPY limitation was developed by multiplying the 1.2 lbs/hour limitation by the maximum operating schedule of 8,760 hours per year, divided by 2,000 pounds per ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance will also be shown with the annual limitation.
 - f. Emission Limitation-
No visible emissions from the flare control system, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Applicable Compliance Method-
Compliance shall be determined by visible emissions evaluations performed in accordance with 40 CFR Part 60, using the procedures specified in U.S. EPA Reference Method 22 of 40 CFR Part 60, Appendix A.
2. The permittee shall conduct, or have conducted, a performance test for emissions unit P001 in accordance with the following requirements:
- a. the performance test shall be performed within 12 months of permit expiration;
 - b. the performance test shall be conducted to demonstrate compliance with the minimum 98 weight percent destruction of NMOC;
 - c. the following test methods of 40 CFR Part 60, Appendix A shall be used to demonstrate compliance with the minimum 98 weight percent destruction efficiency requirement for NMOC, Methods 18, 25 and/or 25A, if method 18 is used the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:

$$\text{Control efficiency} = (\text{NMOCin} - \text{NMOCout})/\text{NMOCin}$$

where: NMOCin = mass of NMOC entering the control system
 NMOCout = mass of NMOC exiting the control system
 - d. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Regional Air Pollution Control Agency.
 - e. The permittee shall determine the net heating value of the gas being combusted in the flare control system by collecting a representative sample of the gaseous fuel burned in the flare and analyzing the fuel for heat content in accordance with ASTM Method D1945 or; by using the following equation:

$$\text{HT} = \sum_{i=1}^n K_i C_i H_i$$

where:

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

 K = constant, 1.740×10^{-7} (1/ppm)(g mole/scm)(MJ/kcal) where the standard temperature for (g mole/scm) is 20 oC

C_i = concentration of sample component i in ppm on a wet basis, as measured for organics by U.S. EPA Reference Method 18 and carbon monoxide by ASTM D1946-77;

H_i = net heat of combustion of sample component i, kcal/g mole at 25 oC and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 if published values are not available or cannot be calculated.

f. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard time and pressure), as determined by U.S. EPA Reference Method 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. Compliance with this requirement was demonstrated during testing completed on July 30 and 31, 2003.

4. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency.

F. Miscellaneous Requirements

1. None