

Facility ID: 1318117982 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: 1318117982 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>
Closed landfill with gas collection system and open flare with a design capacity of 1,649,500 cubic meters	OAC rule 3745-31-05(A)(3) (PTI 13-2957)	1.68 lbs/hr of particulate emissions (PE)
		3.42 lbs/hr of organic compounds (OC)
		0.226 lb/hr of nitrogen oxides (NOx)
		1.39 lbs/hr of carbon monoxide (CO)
		No visible emissions greater than 5% opacity
		See section A.2.a through A.2.g below
	OAC rule 3745-17-11(B)(1)	The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	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).
	40 CFR Part 60 Subpart Cc	See section A.2.h below
	OAC Chapter 3745-76	See section A.2.h below

2. Additional Terms and Conditions

- (a) This facility shall not cause or allow any open burning at this location.
 - The owner or operator shall not initiate or allow any salvage operation to be conducted at this location without prior approval of the Ohio EPA. This excludes recycling or energy recovery, unless Ohio EPA approval is needed.
 - The equipment 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 sparking period and cycle time shall be set to optimize performance depending on actual field conditions.
 - The owner or operator of this facility shall not install any air contaminant source other than those named in this Permit to Operate, including a landfill gas fired boiler, or generator without first obtaining a Permit to Install from the Ohio EPA.
 - All recording devices shall be synchronized based on the time of day.
 - The requirements of 40 CFR Part 60 Subpart Cc and OAC Chapter 3745-76 are not applicable because the design capacity of the landfill is less than 2.5 million cubic meters.

B. Operational Restrictions

1. Design, construction, and siting of the gas extraction wells and collection system shall be in accordance with the Mercomp, Inc. (Schaaf Road Sanitary Landfill) PTI application, and standard industry practices currently in use. In addition, the gas collection system shall:
 - i. be designed to handle the maximum expected gas flow rate over the lifetime of the gas control or treatment system equipment from the entire area of the landfill that warrants control over the equipment lifetime; and

- ii. collect gas at a sufficient extraction rate.
 - 2. The collected gas shall be routed to a control system designed and operated to reduce total organic compounds by 98 weight percent.
 - 3. All landfill gas collected shall be directed to the flare station.
 - 4. The flare is required to operate when landfill gas is actively venting.
 - 5. All wells shall be maintained under negative pressure.
 - 6. Flowrate shall be 59 scfm or greater.
 - 7. Methane content of the landfill gas shall be 30 weight percent or greater.
 - 8. The total quantity of landfill gas burned in the flare system shall not exceed 849,600 cubic feet per day.
- C. Monitoring and/or Record Keeping Requirements**
- 1. This facility shall install a sampling port at each well and measure and record the gauge pressure in the gas collection header on a monthly basis. These monthly records, as well as any supporting data, shall be retained in the company's files for a period of not less than three years and shall be made available to the Director or any authorized representative of the Director for review during normal business hours.
 - 2. This facility shall operate and maintain a portable handheld flow monitor which measures the gas flow to the control device. If the landfill gas flowrate falls below 59 scfm, the gas flow to the flare shall be shut off. The date and time of this occurrence shall also be recorded. The portable handheld flow monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instruction, and operating manuals.
This facility shall measure and record the gas flow to the control device using the portable handheld flow monitor on a daily basis.
This facility shall maintain and record the methane content of the landfill gas at the wells weekly. If the average methane content of the landfill gas falls below 30 weight percent, the gas flow to the flare shall be shut off. The date and time of this occurrence shall also be recorded.
This facility shall measure and record the total quantity of landfill gas burned in the flare system on a daily basis. These records, as well as any supporting data, shall be retained in the company's files for a period of not less than five years and shall be made available to the Director or any authorized representative of the Director for review during normal business hours.
- D. Reporting Requirements**
- 1. Any breakdown or malfunction of the landfill gas flare resulting in the emission of raw landfill gas shall be reported to the Ohio EPA within one hour after the occurrence, or as soon as reasonably possible, and immediate remedial measures shall be undertaken to correct the problem and prevent further emission to the atmosphere.
 - 2. The permittee shall submit quarterly deviation (excursion) reports which include the following information:
The date when gauge pressure of any well is positive;
the time when gauge pressure of any well is positive;
cause of gauge pressure of any well being positive; and
explanation and action taken when gauge pressure of any well is positive.
 - 3. The permittee shall submit a quarterly deviation (excursion) report when the flowrate falls below 59 scfm.
 - 4. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the methane content of the landfill gas was not at least 30 weight percent or greater.
 - 5. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the total quantity of the landfill gas burned in the flare system exceeded 849,600 cubic feet per day.

These quarterly reports shall be submitted as specified in Section C of the General Terms and Conditions of this permit.
- 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 methods:
Emission Limitation -
1.68 lbs/hr of particulate emissions (PE)

Applicable Compliance Method -
To determine the PE, the following equation shall be used:
$$PE = EF \times A \times (60 \text{ min/hr}) \times (MMCF/1000000 \text{ CF})$$
where EF = emission factor from South Coast Air Quality Management District p. 9-32 (70 lbs/MMCF); and
A = average flow rate of landfill gas (200 SCF/min).
Emission Limitation -
3.42 lbs/hr of organic compounds (OC)

Applicable Compliance Method:
To determine the OC, the following equation shall be used:
$$OC = A \times B \times (1 \text{ lb-mol}/359 \text{ SCF}) \times (16 \text{ lb/lb-mol}) \times (60 \text{ min/hr}) \times (1 - CE)$$
where A = average flow rate of landfill gas (200 SCF/min);
B = percent, by volume, of methane in landfill gas composition (0.32); and

CE = fractional control efficiency of the flare (0.98).
Emission Limitation -
0.226 lb/hr of nitrogen oxides (NOx)

Applicable Compliance Method -
To determine the NOx, the following equation shall be used:

$$\text{NOx} = A \times B \times (60 \text{ min/hr}) \times (1 \text{ MMCF}/1000000 \text{ CF}) \times \text{EF}$$

where A = average flow rate of landfill gas (200 SCF/min);

B = percent, by volume, of methane in landfill gas composition (0.32); and

EF = emission factor from South Coast Air Quality Management District p. 9-32 (0.06 lbs/MMCF).
Emission Limitation -
1.39 lbs/hr of carbon monoxide (CO)

Applicable Compliance Method -
To determine the CO, the following equation shall be used:

$$\text{CO} = A \times B \times (60 \text{ min/hr}) \times (1 \text{ MMCF}/1000000 \text{ CF}) \times \text{EF}$$

where A = average flow rate of landfill gas (200 SCF/min);

B = percent, by volume, of methane in landfill gas composition (0.32); and

EF = emission factor from South Coast Air Quality Management District p. 9-32 (0.37 lbs/MMCF).
Emission Limitation -
no visible emissions greater than 5% opacity

Applicable Compliance Method -
Compliance with the above limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.

F. **Miscellaneous Requirements**

1. Authority to Enter

Pursuant to the authority in OAC rule 3745-77-07(C)(2) or ORC 3704.03(L), any representative of the Director may, upon presentation of proper identification, enter at any reasonable time upon any portion of the property where this landfill is located, including any improvements thereon, to make inspections, take samples, conduct tests and examine records or reports pertaining to any emissions of air contaminants and any monitoring equipment, emissions control equipment or methods. No operator or agent of this landfill shall act in any manner to refuse, hinder, or thwart this legal right of entry.