



Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

8/1/2012

Certified Mail

Mr. John Hattersley
Rumpke Sanitary Landfill - Brown County
10795 Hughes Road
Cincinnati, OH 45251-4598

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0708000033
Permit Number: P0110361
Permit Type: OAC Chapter 3745-31 Modification
County: Brown

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, The News Democrat. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and Portsmouth City Health Dept., Air Pollution Unit
605 Washington Street
3rd Floor
Portsmouth, OH 45662

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Portsmouth City Health Dept., Air Pollution Unit at (740)353-5156.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 -Via E-Mail Notification
Portsmouth; Indiana; Kentucky

PUBLIC NOTICE PUBLIC HEARING
8/1/2012 Issuance of Draft Air Pollution Permit-To-Install

Rumpke Sanitary Landfill
9427 Beyers Road,
Georgetown, OH 45121-9301
Brown County

FACILITY DESC.: Solid Waste Landfill

PERMIT #: P0110361

PERMIT TYPE: OAC Chapter 3745-31 Modification

PERMIT DESC: Modification to correct an operational restriction to be consistent with NSPS Subpart WWW requirements, and to increase the blower capacity of the Non-NSPS Main Open Flare from 1,000 scfm to 1,450 scfm to provide additional control for odors.

The Director of the Ohio Environmental Protection Agency issued the draft permit above. A public hearing on the draft air permit is scheduled for 6:30PM, 09/11/2012, at Southern Hills Career & Technical Center, 9193 Hamer Road, Georgetown, Ohio 45121. Written or verbal comments may be submitted at the hearing or sent to: Cindy Charles, Portsmouth Local Air Agency, 605 Washington St, 3rd Floor, Portsmouth, OH 45662. All comments on the draft permit must be received by 09/14/2012.

The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the permit # or contact Cindy Charles, Portsmouth City Health Dept., Air Pollution Unit, 605 Washington Street 3rd Floor, Portsmouth, OH 45662. Ph: (740) 353-3638



DRAFT

Division of Air Pollution Control
Permit-to-Install
for
Rumpke Sanitary Landfill - Brown County

Facility ID: 0708000033
Permit Number: P0110361
Permit Type: OAC Chapter 3745-31 Modification
Issued: 8/1/2012
Effective: To be entered upon final issuance



Division of Air Pollution Control
Permit-to-Install
for
Rumpke Sanitary Landfill - Brown County

Table of Contents

Authorization 1
A. Standard Terms and Conditions 3
1. Federally Enforceable Standard Terms and Conditions 4
2. Severability Clause 4
3. General Requirements 4
4. Monitoring and Related Record Keeping and Reporting Requirements 5
5. Scheduled Maintenance/Malfunction Reporting 6
6. Compliance Requirements 6
7. Best Available Technology 7
8. Air Pollution Nuisance 7
9. Reporting Requirements 7
10. Applicability 8
11. Construction of New Sources(s) and Authorization to Install 8
12. Permit-To-Operate Application 9
13. Construction Compliance Certification 9
14. Public Disclosure 9
15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations 9
16. Fees 10
17. Permit Transfers 10
18. Risk Management Plans 10
19. Title IV Provisions 10
B. Facility-Wide Terms and Conditions 11
C. Emissions Unit Terms and Conditions 13
1. P901, Existing MSW Landfill 14



Authorization

Facility ID: 0708000033
 Facility Description: Municipal Solid Waste Landfill
 Application Number(s): M0001597, A0044408
 Permit Number: P0110361
 Permit Description: Chapter 31 Modification to PTI 07-00574 (issued 12/23/2008) to correct an operational restriction to be consistent with NSPS Subpart WWW requirements, and to increase the blower capacity of the Non-NSPS Main Open Flare from 1,000 scfm to 1,450 scfm to provide additional control for odors.
 Permit Type: OAC Chapter 3745-31 Modification
 Permit Fee: \$1,250.00 *DO NOT send payment at this time, subject to change before final issuance*
 Issue Date: 8/1/2012
 Effective Date: To be entered upon final issuance

This document constitutes issuance to:

Rumpke Sanitary Landfill - Brown County
 9427 Beyers Road
 Georgetown, OH 45121-9301

of a Permit-to-Install for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Portsmouth City Health Dept., Air Pollution Unit
 605 Washington Street
 3rd Floor
 Portsmouth, OH 45662
 (740)353-5156

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
 Director



Authorization (continued)

Permit Number: P0110361
Permit Description: Chapter 31 Modification to PTI 07-00574 (issued 12/23/2008) to correct an operational restriction to be consistent with NSPS Subpart WWW requirements, and to increase the blower capacity of the Non-NSPS Main Open Flare from 1,000 scfm to 1,450 scfm to provide additional control for odors.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	P901
Company Equipment ID:	Existing MSW Landfill
Superseded Permit Number:	07-00574
General Permit Category and Type:	Not Applicable



A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Portsmouth City Health Dept., Air Pollution Unit.
 - (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions,

and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Portsmouth City Health Dept., Air Pollution Unit. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

- (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Portsmouth City Health Dept., Air Pollution Unit every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Portsmouth City Health Dept., Air Pollution Unit in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:



- (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- d) The permittee shall submit progress reports to the Portsmouth City Health Dept., Air Pollution Unit concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Portsmouth City Health Dept., Air Pollution Unit.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Portsmouth City Health Dept., Air Pollution Unit. If no deviations occurred during a calendar quarter, the permittee shall

submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.
- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All

records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly (i.e., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.



16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in Air Services once the transfer is legally completed. The change must be submitted through Air Services within thirty days of the ownership transfer date.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.
2. The following emissions unit contained in this permit is subject to 40 CFR Part 60, Subpart WWW, 40 CFR Part 61, Subparts A and M, and 40 CFR Part 63, Subpart AAAA: P901, MSW Landfill Operations.

The complete NSPS, NESHAP, and MACT requirements, including the NSPS, NESHAP, and MACT General Provisions, may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov>.

C. Emissions Unit Terms and Conditions



1. P901, Existing MSW Landfill

Operations, Property and/or Equipment Description:

Existing Municipal Solid Waste (MSW) Landfill, with gas collection and control system (Non-NSPS Main Open Flare)-(1,450 scfm), NSPS control devices-(11,955 scfm total), and passive candlestick flares-(1,000 scfm total) which can accept asbestos containing material (ACM).

Chapter 31 Modification to PTI 07-00574 (issued 12/23/2008) to correct an operation restriction to be consistent with NSPS Subpart WWW requirements, and to increase the blower capacity of the Non-NSPS Main Open Flare from 1,000 scfm to 1,450 scfm to provide additional control for odor. Also, includes minor changes to some monitoring and recordkeeping and reporting requirements.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>Fugitive (non stack) emissions shall not exceed the following :</p> <p>Non-methane organic (NMOC) emissions shall not exceed 488.14 tons per year.</p> <p>Methane (CH₄) emissions shall not exceed 75,712 tons per year.</p> <p>Volatile organic compounds (VOC) emissions shall not exceed 193.73 tons per year.</p> <p>Carbon monoxide (CO) emissions shall not exceed 37.02 tons per year.</p> <p>Fluorides (excluding HF) emissions shall not exceed 22.84 tons per year.</p> <p>Hydrogen Sulfide (H₂S) emissions shall not exceed 11.58 tons per year.</p> <p>Fluorotrichloromethane (CFC-11) emissions shall not exceed 0.99 ton per year.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Dichlorodifluoromethane (CFC-12) emissions shall not exceed 18.26 tons per year.</p> <p>Particulate Emissions (PE) shall not exceed 0.17 ton per year.</p> <p>Particulate Emissions less than 10 microns (PM₁₀) shall not exceed 0.08 ton per year.</p> <p>Hazardous Air Pollutants (HAP's) emissions shall not exceed 95.08 tons per year.</p> <p>See b)(2)a, b)(2)f. through b)(2)k., and b)(2)v.</p>
b.	OAC rule 3745-31-05(A)(3)	<p>Emissions from the NSPS control devices (11,955 scfm total) shall not exceed the following:</p> <p>NMOC emissions shall not exceed 1.93 lbs per hour and 8.44 tons per year.</p> <p>CH₄ emissions shall not exceed 299.01 lbs per hour and 1309.66 tons per year.</p> <p>Sulfur Dioxide (SO₂) emissions shall not exceed 5.50 lbs per hour and 24.09 tons per year.</p> <p>Hydrogen Chloride (HCl) emissions shall not exceed 8.60 lbs per hour and 37.68 tons per year.</p> <p>Hydrogen Fluoride (HF) emissions shall not exceed 1.42 lbs per hour and 6.20 tons per year.</p> <p>Volatile Organic Compounds (VOC) emissions shall not exceed 0.77 lb per hour and 3.35 tons per year.</p> <p>*Hydrogen Sulfide emissions are assumed to be completely converted to SO₂ emissions during combustion of landfill gas in the NSPS control devices.</p> <p>CFC-11 emissions shall not exceed 0.0039 lb per hour and 0.017 ton per year.</p> <p>CFC-12 emissions shall not exceed 0.072 lb per hour and 0.32 ton per year.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)b. and b)(2)r.
c.	OAC rule 3745-31-05(A)(3)	<p>Emissions from the candlestick flares (1,000 scfm total) shall not exceed the following:</p> <p>CH₄ emissions shall not exceed 25.0 lbs per hour and 109.45 tons per year.</p> <p>NMOC emissions shall not exceed 0.16 lb per hour and 0.71 ton per year.</p> <p>SO₂ emissions shall not exceed 0.47 lb per hour and 2.05 tons per year.</p> <p>Emissions from the Non-NSPS Main Open flare (1,450 scfm) shall not exceed the following:</p> <p>CH₄ emissions shall not exceed 36.24 lbs per hour and 158.75 tons per year.</p> <p>NMOC emissions shall not exceed 0.23 lb per hour and 1.02 ton per year.</p> <p>SO₂ emissions shall not exceed 0.68 lb per hour and 2.97 tons per year.</p> <p>See b)(2)b. and b)(2)r.</p>
d.	OAC rule 3745-31-10 through 20.	<p>Emissions from the NSPS control devices (11,955 scfm total) shall not exceed the following:</p> <p>CO emissions shall not exceed 79.9 lbs per hour and 350.0 tons per year.</p> <p>Particulate matter and Particulate matter less than 10 microns (PE/PM₁₀) emissions shall not exceed 6.10 lbs per hour and 26.71 tons per year.</p> <p>Nitrogen Oxide (NO_x) emissions shall not exceed 21.78 lbs per hour and 95.39 tons per year.</p> <p>See b)(2)r., b)(2)s., and b)(2)z.</p> <p>Emissions from the candlestick flares (1,000 scfm total) shall not exceed the following:</p> <p>CO emissions shall not exceed 22.5 lbs per hour and 98.55 tons per year.</p> <p>PE/PM₁₀ emissions shall not exceed 0.51</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>lb per hour and 2.23 tons per year.</p> <p>NO_x emissions shall not exceed 1.2 lbs per hour and 5.26 tons per year.</p> <p>See b)(2)r. and b)(2)s.</p> <p>Emissions from the Non-NSPS Main Open flare (1,450 scfm) shall not exceed the following:</p> <p>CO emissions shall not exceed 32.63 lbs per hour and 142.90 tons per year.</p> <p>PE/PM₁₀/PM_{2.5} emissions shall not exceed 0.74 lb per hour and 3.24 tons per year.</p> <p>NO_x emissions shall not exceed 1.74 lbs per hour and 7.62 tons per year.</p> <p>See b)(2)r. and b)(2)s.</p>
e.	40 CFR Part 60, Subpart WWW (40 CFR Part 60.750-759)	<p>When the calculated NMOC rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall either control the NMOC emissions by 98 percent, by weight, or reduce the outlet NMOC concentration to less than 20 ppm by volume, dry basis as hexane at 3 percent oxygen.</p> <p>See b)(2)b. through b)(2)e. and b)(2)l. through b)(2)q.</p>
f.	40 CFR Part 60.18 (c)(1)	See b)(2)b. and b)(2)d.
g.	<p>40 CFR Part 63, Subpart AAAA (40 CFR Part 63.1930 – 1990)</p> <p>[In accordance with 63.1940(a), this affected source is a MSW Landfill that meets the criteria in 40 CFR 63.1935(a) or (b).]</p>	This subpart requires all landfills to meet the requirements of 40 CFR Part 60, Subpart Cc or WWW and requires such landfills to meet the startup, shutdown and malfunction (SSM) requirements of the general provisions of this part.
h.	40 CFR Part 61, Subparts A and M and OAC Chapter 3745-20	<p>See b)(2)t. through b)(2)u. and b)(2)y.</p> <p>See b)(2)aa., c)(9), and c)(10).</p>

(2) Additional Terms and Conditions

- a. For all waste materials except asbestos-containing materials:
 - i. visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average; and
 - ii. the permittee shall use best available control measures to minimize or eliminate the emissions of fugitive dust as specified in sections b)(2)g. and b)(2)i.
- b. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart WWW and 40 CFR Part 60.18(c)(1) if open flares are installed for compliance with 40 CFR Part 60, Subpart WWW.
- c. When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the active collection system shall satisfy the following requirements, as specified in 40 CFR Part 60.752(b)(2)(ii)(A):
 - i. The system shall be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment.
 - ii. The system shall collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active, or 2 years or more if closed or at final grade.
 - iii. The system shall collect gas at a sufficient extraction rate.
 - iv. The system shall be designed to minimize off-site migration of subsurface gas.
- d. When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall comply with either i., ii., or iii. below as well as the rest of b)(2)d):
 - i. All landfill gas collected shall be routed to a control system designed and operated within the parameters demonstrated during the performance test to reduce non-methane organic compound (NMOC) emissions by 98% by weight, or reduce the outlet NMOC emission concentration to less than 20 parts per million (ppm), by volume, dry basis as hexane at 3% oxygen. The reduction efficiency or ppm by volume, shall be established by an initial performance test to be completed no later than 180 days after initial startup of the approved new control system using the test methods specified in 40 CFR Part 60.754(d).
 - ii. Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of 40 CFR Part 60.752(b)(2)(iii)(A) or (B).

- iii. The open flare shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- iv. The open flare shall be operated with a flame present at all times. When the open flare is not combusting gas, the presence of a flame is not required.
- v. The permittee shall comply with either the requirements in paragraphs (a) and (b) or the requirements in paragraph (c) or the requirements in paragraph (d):

- (a) The open flare shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the open flare is nonassisted. The net heating value of the gas being combusted shall be determined as follows:

$$H_t = k \times (\text{the summation of } C_i H_i \text{ for } i=1 \text{ through } i=n)$$

where:

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

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

C_i = concentration of sample component "i" in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994); and

H_i = net heat of combustion of sample component i, kcal/g mole at 25 degrees C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in 40 CFR Part 60.17) if published values are not available or cannot be calculated

- (b) A steam-assisted and nonassisted open flare shall be designed for and operated with an exit velocity of less than 18.3 m/sec (60 ft/sec), except:
 - (i) steam-assisted and nonassisted open flares designed for and operated with an exit velocity of equal to or greater than 18.3 m/sec (60 ft/sec), but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being

combusted is greater than 37.3 MJ/scm (1,000 Btu/scf);
and

- (ii) steam-assisted and nonassisted open flares designed for and operated with an exit velocity of less than the velocity, V_{max} , and less than 122 m/sec (400 ft/sec) are allowed; as determined by

$$\text{Log}_{10}(V_{max}) = (Ht + 28.8)/31.7$$

where:

V_{max} = the maximum permitted velocity, M/sec;

28.8 = constant;

31.7 = constant; and

Ht = the net heating value as determined in section b)(2)d.v.(a) above.

- (c) The open flare shall have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, V_{max} , as determined by the following equation:

$$V_{max} = (X_{h2} - K1) * K2$$

where:

V_{max} = the maximum permitted velocity, in m/sec;

$K1$ = constant, 6.0 volume-percent hydrogen;

$K2$ = constant, 3.9(m/sec)/volume-percent hydrogen; and

X_{h2} = the volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77

- (d) An air-assisted open flare shall be designed for and operated with an exit velocity of less than the velocity, V_{max} , as determined by the following equation:

$$V_{max} = 8.706 + 0.7084 (Ht)$$

where:

V_{max} = the maximum permitted velocity, m/sec;

8.706 = constant;

0.7084 = constant; and

Ht = the net heating value as determined in section b)(2)d.v.(a) above.

- e. When the calculated NMOC rate is greater than or equal to 50 megagrams per year (55.1 tpy), the collection and control system may be capped or removed provided that all of the following conditions, as specified in 40 CFR Part 60.752(b)(2)(v), are met:

- i. The landfill shall be no longer accepting solid waste and be permanently closed (pursuant to 40 CFR Part 258.60).
 - ii. The collection and control system shall have been in operation a minimum of 15 years.
 - iii. The calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year (55.1 tpy) on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart
- f. All landfill areas where solid wastes are deposited are covered by this permit and subject to the requirements of OAC rule 3745-31-05.
- g. The permittee shall employ best available control measures on all landfill operations associated with the load-in of MSW for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to minimizing drop heights and watering of dusty materials, either prior to dumping or during dumping, and good operating practices to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- h. The above-mentioned control measures shall be employed for each MSW landfill cell if the permittee determined, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during any such operation until further observation confirms that use of the measures is unnecessary.
- i. The permittee shall employ best available control measures for wind erosion from the surface of the landfill for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to watering dusty loads prior to dumping during periods of high wind speed to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- j. The above-mentioned control measures shall be employed for wind erosion from the landfill if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measure(s) shall not be necessary for the landfill cell that is covered with snow and/or ice if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.
- k. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate to satisfy the requirements of OAC rule 3745-31-05.

- I. If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year (55.1 tpy), the permittee shall comply with the requirements specified in 40 CFR 63.1955(b) and 63.1960 through 63.1980, in accordance with 40 CFR 63.1945(d), by the date the permittee is required to install a collection and control system as specified in 40 CFR 60.752(b)(2) of Subpart WWW.
- m. For compliance with the surface methane operational standard as provided in c)(4), when the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy) the permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.
- n. The provisions of this permit under the authority of 40 CFR, Part 60, Subpart WWW apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.
- o. When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator:
 - i. The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.
 - ii. The sufficient density of gas collection devices determined in b)(2)o.i shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.
- p. When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the placement of gas collection devices shall control all gas producing areas, except as provided by i and ii below:
 - i. Any segregated area of non-degradable material may be excluded from collection if documented as provided under d)(19). The documentation shall provide the nature, date of deposition, location and amount of non-degradable material deposited in the area, and shall be provided to the Administrator and Director upon request.
 - ii. Any non-productive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute

less than 1% of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Administrator and Director upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill.

Emissions from each section shall be computed using the following equation:

$$Q_i = 2 \times k \times L_o \times M_i \times (e^{-k t_i}) \times (C_{nmoc}) \times (3.6 \times 10^{-9})$$

where:

Q_i = NMOC emission rate from the i th section, in megagrams per year

k = methane generation rate constant, in year⁻¹

L_o = methane generation potential, in cubic meters per megagram solid waste

M_i = mass of the degradable solid waste in the i th section, in megagrams

t_i = age of the solid waste in the i th section, in years

C_{nmoc} = concentration of nonmethane organic compounds, in parts per million by volume

3.6×10^{-9} = conversion factor

- iii. The values for k , L_o , and C_{nmoc} determined in field testing shall be used, if field testing has been performed in determining the NMOC emission rate or the radii of influence. If field testing has not been performed, the default values for k , L_o and C_{nmoc} are provided below:

$k^* = 0.05$ per year

$L_o = 170$ cubic meters per megagram

$C_{nmoc} = 4,000$ parts per million by volume as hexane

* For landfills located in geographical areas with a thirty-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year

- q. When the permittee constructs new gas collection devices and the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall use the following equipment or procedures:
- i. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head

- ii. loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration
- iii. Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.
- iv. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.
- r. The hourly emission limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no record keeping, monitoring and/or reporting requirements are necessary to ensure compliance with these limitations.
- s. All particulate emissions from the NSPS Control Devices, Non-NSPS Main Open Flare and Candlestick flares are particulate matter less than 10 micron in size (PM₁₀).
- t. The landfill, approved to accept asbestos-containing waste materials shall maintain the following work practice standards:
 - i. There shall be no visible emissions from asbestos-containing waste materials during on-site transportation, transfer, unloading, deposition, compacting operations, or from any inactive asbestos waste disposal sites.
 - ii. Deposition and burial operations shall be conducted in a careful manner that prevents asbestos-containing waste materials from being broken up or dispersed before the materials are buried.
 - iii. The permittee shall inspect each load of asbestos-containing material delivered to the facility. The inspection shall consist of a visual examination to ensure that each shipment of asbestos-containing waste materials is received in intact, leak-tight containers labeled with appropriate hazard warning labels, the name of the waste generator, and the location of waste generation. The inspection also shall determine whether the waste shipment records accompany the consignment and accurately describe the waste material and quantity.

- iv. If on the basis of the inspection, the waste material is found to be improperly received, the load shall be disposed of in accordance with the procedures in the "Asbestos Spill Contingency Plan," and the discrepancy shall be noted on the waste shipment record.
- u. The permittee shall develop, implement, and maintain an "Asbestos Disposal Operating Procedure and Spill Contingency Plan" consisting of:
 - i. authorized personnel training;
 - ii. inspection and disposal operating procedures;
 - iii. non-conforming load response procedures;
 - iv. inventory and maintenance procedures for safety and emissions control equipment;
 - v. record keeping procedures; and
 - vi. emergency notification procedures.

Authorized personnel shall be knowledgeable in the procedures, and the Plan shall be available for inspection at this facility at all times. Emissions control equipment shall be available for wetting and containing asbestos in the event of a release or non-conforming load disposal. All equipment required to implement the Plan shall be maintained in accordance with good engineering practices to ensure that the equipment is in a ready-to-use condition and in an appropriate location for use

- v. Hydrogen Sulfide Emissions Contingency Plan

As part of the best available technology requirements under OAC rule 3745-31-05(A)(3), Ohio EPA may request the permittee to develop and implement a hydrogen sulfide emissions contingency plan. If requested, the contingency plan shall meet the requirements detailed in rules developed in response to House Bill (H.B.) 397.

Under H.B. 397 signed by the governor December 22, 2005, Ohio EPA is required to develop rules governing the operation of construction and demolition debris (C&DD) landfills. One part of this bill requires Ohio EPA to require C&DD facilities to develop and implement a contingency plan for the effective action in response to hydrogen sulfide or other gas emissions. However, Ohio EPA believes it may become important for facilities other than C&DD landfills to have in place a contingency plan to deal with potential hazardous emissions. Therefore, as a condition of this permit, if requested, the permittee will be required to develop and implement a hydrogen sulfide/other gas emission contingency plan consistent with the requirements developed in response to H.B. 397.

- w. There shall be no open burning, in violation of OAC Chapter 3745-19, at this facility.
- x. Pursuant to the authority in ORC section 3704.03(L), any authorized 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; examine records or reports pertaining to any emissions of air contaminants; and inspect monitoring equipment, emissions control equipment, and/or methods of operation and gas sampling. No operator or agent of this landfill shall act in any manner to refuse, hinder, or thwart this legal right of entry.

- y. If this landfill is permanently closed, the permittee shall comply with all of the applicable provisions of OAC rule 3745-20-07.
- z. The permittee is required to perform a Best Available Control Technology (BACT) review for NO_x, CO, and PE. The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-(10) through (20) above. The following determinations have been made for this emissions unit:

- i. For NO_x, CO, and PM₁₀, a well designed and well operated gas collection system and an enclosed combustor system capable of reducing NMOC in the collected gas by 98% or an enclosed combustor outlet concentration of 20 ppmvd as hexane at 3% oxygen. The enclosed combustor stations will be added on a phased schedule to match the LFG generation rates.

An open flare or landfill gas recovery system may also be installed, provided compliance with the requirements of NSPS 40 CFR 60 Subpart WWW and the emission limits in Section C.1.b)(1)b. and d. are maintained.

- aa. The application and enforcement of the provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 61, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 61 are also federally enforceable.

c) **Operational Restrictions**

- (1) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for 5 years or more if active, or for 2 years or more if closed or at final grade.
- (2) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall operate the collection system with negative pressure at each wellhead, except under the following conditions:
 - a. a fire or increased well temperature (the permittee shall record instances when positive pressure occurs in efforts to avoid a fire);
 - b. use of a geomembrane or synthetic cover (the permittee shall develop acceptable pressure limits in the design plan); or

- c. a decommissioned well (the well may experience a static positive pressure after shutdown to accommodate for declining flows; all design changes shall be approved by the Director of the Ohio EPA).
- (3) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit) and with either a nitrogen level less than 20% or an oxygen level less than 5%. The permittee may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.
- (4) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill.
- (5) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall operate the collection system such that all collected gases are vented to a control system designed and operated in compliance with section b)(2)d. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within one hour.
- (6) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall operate the NSPS control devices and/or gas recovery system at all times when the collected gas is routed to the system.
- (7) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the open flare shall be equipped with 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 the flame when the open flare is in operation.
- (8) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall operate the control device within the parameter ranges established during the initial or most recent performance test. The parameters established shall be based on the control device installed and may include a heat sensing device, gas flow rate measuring, and/or temperature monitoring device.
- (9) The permittee shall establish restricted access, adequate to deter the unauthorized entry of the general public and any unauthorized personnel, within 100 feet of the unloading, deposition, and burial areas for the asbestos-containing waste materials. A hazard warning shall be displayed on signs not less than 20 x 14 inches in size, posted so they are visible before entering an area with asbestos waste disposal operations in progress; or, alternatively, mark vehicles used to transport asbestos-containing waste materials with 20 x 14 inch signs so that the signs are displayed in such a manner and location that a person can easily read the legend. Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend:

ASBESTOS WASTE DISPOSAL SITE
DO NOT CREATE DUST
BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH

Notation

2.5 cm (1 inch) Sans Serif, Gothic or Block

2.5 cm (1 inch) Sans Serif, Gothic or Block

1.9 cm (3/4 inch) Sans Serif, Gothic or Block

14 Point Gothic

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

- (10) The permittee shall cover and compact asbestos wastes in accordance with the following:
- a. As soon as practical after the placement of friable asbestos, but no later than the end of each working day, the asbestos-containing waste materials deposited at the site during the operating day shall be covered with at least 12 inches of non-asbestos-containing materials. Once the asbestos-containing materials are covered, the area may be compacted.
 - b. Care shall be taken to ensure that disposed asbestos shall not be re-excavated in subsequent operations. Any accidentally exposed material shall be immediately recovered in accordance with the provisions of this permit.
 - c. Asbestos-containing waste materials shall be separated from the landfill final grade by no less than 24 inches of compacted non-asbestos-containing materials and a permanent cover of vegetation, or in accordance with current requirements for closure, whichever is more stringent
- (11) When the calculated NMOC emission rate is greater than or equal to 50 megagrams/yr (55.1 tpy), the permittee shall either burn the gas in the NSPS control devices and/or an energy recovery piece of equipment, as required above, or collect and sell the gas as fuel.
- (12) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the collection system shall be designed to meet the requirements of 40 CFR Part 60.759.
- (13) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall comply with the general provisions outlined in Table 1 of 40 CFR Part 63, Subpart AAAA.
- (14) The authorized maximum daily waste receipt (AMDWR) of solid waste as defined in OAC rule 3745-27-01(S)(23) shall not exceed 3,000 tons excluding composting raw material and unprocessed and/or shredded tires. This daily limit may be exceeded if approved in writing by the Director of Ohio EPA.

- (15) The permittee shall comply with the applicable operational restrictions required under 40 CFR Part 63, Subpart AAAAA, including the following sections:

40 CFR Part 63.1955	Comply with the requirements of 40 CFR Part 60, Subpart WWW.
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- (16) If monitoring demonstrates that the operational requirements for negative pressure, interior wellhead temperature, wellhead oxygen or nitrogen concentration, and/or surface methane levels are not met, corrective action shall be taken as specified in the monitoring and record keeping requirements for the pressure, temperature, oxygen or nitrogen concentration at each well's gas collection header and surface methane measurements. If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements.

d) **Monitoring and/or Recordkeeping Requirements**

- (1) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy) for the active gas collection system, the permittee shall install a sampling port and a thermometer or other temperature measuring device at each wellhead and record the following information on a monthly basis:

- a. the gauge pressure in the gas collection header at each individual well;
- b. the nitrogen or oxygen concentration in the landfill gas; and
- c. the temperature of the landfill gas, in degrees Fahrenheit.

- (2) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall monitor surface concentrations of methane on a quarterly basis as follows:

The permittee shall monitor surface concentrations of methane on a quarterly basis according to the instrument specifications and procedures provided below. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may revert to annual monitoring; however, during the annual monitoring, any methane reading of 500 ppm or more above background detected, returns the frequency for that landfill back to quarterly monitoring. The permittee shall monitor surface concentrations of methane on a quarterly basis as follows:

- a. Surface concentrations of methane shall be monitored, in ppm, along the entire perimeter of the collection area and along a pattern spaced 30 meters apart (or a site-specific established spacing) and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover for each collection area;
- b. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

- c. Surface emission monitoring shall be performed in accordance with Section 8.3.1 of Method 21 of Appendix A of 40 CFR Part 60, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions; and
 - d. Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified below shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements listed in c)(4).
 - i. The location of each monitored exceedance shall be marked and the location recorded.
 - ii. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be remonitored within 10 calendar days of detecting the exceedance.
 - iii. If the remonitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for the installation may be submitted to the Portsmouth Local Air Agency for approval. No further monitoring of that location is required until the action specified has been taken.
 - iv. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day remonitoring specified above shall be remonitored 1 month from the initial exceedance. If the 1-month remonitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified above shall be taken.
 - v. For any location where the monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance.
 - e. The monitor used shall meet the requirements of 40 CFR 60.755.
- (3) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

- a. 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 when the open flare is in operation; and
 - b. a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes.
- (4) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), if a gas flow rate measuring device is not installed on an open flare or enclosed combustor, then the permittee shall 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.
- (5) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall maintain the following information for the life of the control equipment as measured during the initial performance test or compliance demonstration:

- a. the maximum expected gas generation flow rate as calculated based on the following:

- i. For sites with unknown year-to-year solid waste acceptance rate:

$$Q_m = 2L_o \times R \times \{(e \text{ to the power of } -kc) - (e \text{ to the power of } -kt)\}$$

where:

Q_m = the maximum expected gas generation flow rate, in cubic meters per year;

L_o = the methane generation potential, in cubic meters per megagram solid waste;

R = the average annual acceptance rate, in megagrams per year;

k = the methane generation rate constant, per year;

t = the age of the landfill at equipment installation plus the time the permittee intends to use the gas mover equipment or active life of the landfill, whichever is less (if the equipment is installed after closure, t is the age of the landfill at installation), in years; and

c = time since closure, in years (for an active landfill $c = 0$ and e to the power of $-kc = 1$).

- ii. For sites with known year-to-year solid waste acceptance rate:

$$Q_m = \text{summation of } 2kL_oM_i \times (e \text{ to the power of } -kti \text{ for } i=1 \text{ through } i=n)$$

where:

Q_m = the maximum expected gas generation flow rate, in cubic meters per year;

k = the methane generation rate constant, per year;

L_o = the methane generation potential, in cubic meters per megagram of solid waste;

M_i = the mass of solid waste in the i th section, in megagrams; and

t_i = the age of the i th section, in years.

- iii. If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in sections d)(5)a.i. and d)(5)a.ii. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in d)(5)a.i. or d)(5)a.ii. or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment. The permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Ohio EPA.
 - b. the density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR Part 60.759(a)(1);
 - c. the open flare type (i.e., steam-assisted, air-assisted, or non-assisted);
 - d. all visible particulate emission readings;
 - e. the heat content determinations of the gas;
 - f. the flow rate or bypass flow rate measurements;
 - g. the exit velocity determinations made during the performance test as specified in 40 CFR Part 60.18 and;
 - h. the continuous records of the open flare pilot flame or flare flame monitoring and records of all periods of operations during which the open flare pilot flame or open flare flame was absent.
- (6) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall maintain, for the life of the collection system, an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.
 - (7) The permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity of the landfill, 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 hardcopy or electronic formats are acceptable. These records, may also be required by the OEPA, Division of Materials and Waste Management, and shall satisfy this permit condition.
 - (8) Except as otherwise provided in this section, the permittee shall perform inspections of the landfill operation areas in accordance with the following frequencies:

Landfill areas Minimum inspection frequency

All landfill areas Once daily while in operation

- (9) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures specified in this permit for load-in of a MSW landfill cell and wind erosion from the surface of a MSW landfill cell. The inspections shall be performed during representative, normal operating conditions. No inspection shall be necessary for a landfill operating area or storage pile that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
- (10) The permittee may, upon receipt of written approval from the Portsmouth Local Air Agency, modify the above-mentioned inspection frequency if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements. Such modified inspection frequencies would not be considered a minor or significant modification that would be subject to the Title V permit modification requirements in paragraphs (C)(1) and (C)(3) of OAC rule 3745-77-08.
- (11) The permittee shall maintain records of the following information:
- a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
 - c. the dates the control measures were implemented; and
 - d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.
- The information required in (11)d. shall be kept separately for (i) the solid waste load-in operations, (ii) the surface working operations, and (iii) the cell surface (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.
- (12) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall install a sampling port and a thermometer or other temperature measuring device, or an access port for temperature measurements at each wellhead.
- a. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with b)(2)c.iii., the permittee shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within

5 calendar days, except for the three conditions allowed under c)(2). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Director for approval. The permittee is not required to expand the gas collection system during the first 180 days after its initial startup.

- b. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the permittee shall monitor each well monthly for temperature and nitrogen or oxygen as provided in d)(1). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedance of other operational or performance standards. An alternate timeline for correcting the exceedance may be submitted to the Director for approval.
- (13) The permittee shall maintain daily records of the amount of landfill (solid) wastears defined in OAC rule 3745-27-01(S)(23) (i.e., excluding composting raw material and unprocessed and/or shredded tires) received.
- (14) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the NSPS enclosed combustor 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.

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 any NSPS enclosed combustor was more than 82.4 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent performance test that demonstrated compliance; 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
- (15) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee of a controlled landfill subject to the provisions of 40 CFR Part 60, Subpart WWW shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in d)(1) through d)(3) and d)(14) as well as up-to-date, readily accessible records for periods of

operation during which the parameter boundaries established during the most recent performance test are exceeded.

- (16) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under d)(3) and d)(4).
- (17) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall keep up-to-date, readily accessible continuous records of the open flare flame or open flare pilot flame monitoring specified under d)(3), and up-to-date, readily accessible records of all periods of operation in which the open flare flame or open flare pilot flame is absent.
- (18) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under b)(2)c. of this permit.
- (19) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos containing and/or nondegradable waste excluded from collection as provided in b)(2).p.i as well as any nonproductive areas excluded from collection as provided in b)(2)p.ii.
- (20) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in c)(1) through c)(6), the reading in the subsequent month, whether or not the second reading is an exceedance, and the location of each exceedance.
- (21) The permittee shall maintain a waste shipment record for all ACM regulated under 40 CFR Part 61 and OAC rule 3745-20. The waste shipment record shall be legible, complete, signed and dated by the waste generator and waste disposal site operator, and shall include the following information:
 - a. the name of the work site or facility where the asbestos-containing waste was generated and the mailing address and telephone number of the facility owner.
 - b. the name, mailing address, and telephone number of the owner or operator (waste generator) responsible for handling, packing, marking, and labeling the asbestos-containing waste material.
 - c. the name, mailing address, telephone number, and site location of the active waste disposal site designated by the generator to receive the asbestos-containing waste material for disposal.
 - d. the name and address of the local, State, or U.S. EPA regional office responsible for administering the asbestos NESHAP program

- e. description of the asbestos-containing waste materials included in the waste shipment.
- f. the number and type of containers included in the waste shipment.
- g. the approximate volume of asbestos-containing waste material included in the waste shipment, in cubic yards.
- h. special handling instructions or additional information relative to the waste shipment the generator may specify.
- i. a certification that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and governmental regulations.
- j. the name, address, and telephone number of the transporter.
- k. a signature by the transporter to acknowledge receipt of the asbestos-containing waste shipment described by the waste generator in section d)(21)a. through d)(21)i.
- l. a discrepancy indication space to be completed by the transporter or waste shipment owner or operator if any improperly contained asbestos waste is observed or if there is any discrepancy in the quantity of asbestos shipped and the quantity of asbestos waste received at the asbestos waste disposal site.
- m. the name and telephone number of the disposal site operator;
- n. a signature by the waste disposal site operator to acknowledge receipt of the asbestos-containing waste shipment described by the waste generator in section d)(21)a through i, except as noted in the discrepancy indication space
- o. the date of receipt of the asbestos-containing waste.

Significant amounts of improperly contained waste shall be reported in writing to the Portsmouth Local Air Agency by the following working day. The report shall include a copy of the waste shipment. The waste shipment record forms shall be retained at the facility for at least two years, and shall be made available for inspection upon request.

- (22) The permittee shall maintain records of the location, depth, area, and quantity in cubic yards of all asbestos-containing waste material within the disposal site, on a map or a diagram of the disposal area.
- (23) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 63, Subpart AAAA, including the following sections:



40 CFR Part 63.1980(a)	Keep records and reports as specified in 40 CFR Part 60, Subpart WWW.
40 CFR Part 63.1980(b)	Keep records and reports as specified in the general provisions of 40 CFR Part 60 and this part as shown in Table 1 of this subpart.

e) Reporting Requirements

- (1) The permittee shall submit an annual NMOC emission rate report which contains an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in 40 CFR Part 60.754(a) or (b), as applicable. If the estimated NMOC emission rate as reported in the annual report is less than 50 megagrams per year in each of the next 5 consecutive years, the permittee may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall 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 shall be provided to the Portsmouth Local Air Agency. This estimate shall 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 shall be submitted to the Portsmouth Local Air Agency. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.
- (2) The permittee shall submit a closure report to the Portsmouth Local Air Agency within 30 days of waste acceptance cessation. The Ohio EPA may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR Part 258.60. If a closure report has been submitted to the Ohio EPA, no additional wastes may be placed into the landfill without filing a notification of modification as described in 40 CFR Part 60.7(a)(4).
- (3) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall submit an equipment removal report to the Portsmouth Local Air Agency 30 days prior to removal or cessation of operation of the control equipment. The equipment removal report shall contain the information specified in 40 CFR Part 60.757(e)(1). The Ohio EPA may request additional information as may be necessary to verify that all of the conditions for removal in 40 CFR Part 60.752(b)(2)(v) have been met.
- (4) The permittee shall submit deviation(excursion) reports that identify any of the following occurrences:
 - a. each day during which an inspection of the fugitive dust sources was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation;
 - b. each instance when a control measure that was to be implemented as a result of an inspection of the fugitive dust sources, was not implemented;

- c. when the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), any record which indicates that the gauge pressure in the gas collection header at each individual well was positive;
- d. when the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), any record which indicates that the nitrogen or oxygen concentration in the landfill gas was greater than or equal to 20% or 5%, respectively;
- e. when the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), any record which indicates that the temperature of the landfill gas was greater or equal to 55 degrees Celsius (131 degrees Fahrenheit);
- f. when the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), any record which indicates that the surface concentration of methane was greater than or equal to 500 parts per million above background, if applicable;
- g. when the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), all periods during which the open flare pilot flame or open flare flame was not present when the open flare was in operation (the reports shall include the date, time, and duration of each such period); and
- h. when the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow or any record which indicates that the bypass line valve was not maintained in the closed position.

These reports shall be submitted in accordance with the reporting requirements specified in Standard Term and Conditions of this permit.

- (5) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall submit semi-annual reports which include the following:
 - a. all periods when the collection system was not operating in excess of 5 days; and
 - b. any record indicating the date of installation and the location of each well or collection system expansion added pursuant to 40 CFR Part 60.755(a)(3), (b), and (c)(4).
 - c. description and duration of all periods when the control device or recovery and treatment system was not operating for a period exceeding 1 hour and the length of time the control device or recovery and treatment system was not operating.
 - d. identification of each 3-hour period of operation during which the average combustion temperature within the enclosed combustor, was more than 82.4 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent performance test that demonstrated compliance.

These reports shall be submitted by January 31 and July 31 of each year.

- (6) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the permittee shall submit the following information with the initial performance test report required pursuant to 40 CFR Part 60.8:
- a. a diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;
 - b. the data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;
 - c. the documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;
 - d. the sum of the gas generation flow rate for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area;
 - e. the provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and
 - f. the provisions for the control of off-site migration.
- (7) Then permittee shall notify the Portsmouth Local Air Agency in writing of any daily record which shows that the amount of landfill (solid)waste as defined in OAC rule 3745-27-01(S)(23) (i.e., excluding composting raw material and unprocessed and/or shredded tires) received exceeded 3,000 tons without prior approval by the Director of the Ohio EPA. The notification shall include a copy of such record and shall be sent to the Portsmouth Local Air Agency within 30 days after the exceedance occurs.
- (8) As outlined in 40 CFR Part 63.1965, a deviation occurs when the control device operating parameter boundaries described in 40 CFR Part 60.758(c)(1) of Subpart WWW are exceeded. A deviation also occurs when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour.
- (9) The permittee shall submit quarterly written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from asbestos-containing materials during on-site transportation, transfer, unloading, deposition, and/or compacting operations and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Portsmouth Local Air Agency by January 31, April 30, July 31 and October 31 and shall cover the previous calendar quarters.

- (10) The permittee shall submit quarterly reports summarizing the asbestos disposal activities; these reports shall contain the following information:
- a. the name, address and location of the facility, the calendar period covered by the report, and any changes in the methods of storage or the disposal operations; and
 - b. a list of all asbestos-containing waste consignments received including: the date received, the name of the waste generator, the name and location of the facility where the load originated, the quantity of asbestos, and any discrepancy or non-conformity discovered.

These quarterly reports shall be submitted no later than January 31, April 30, July 31 and October 31 and shall cover the previous calendar quarters.

- (11) As soon as possible and no longer than 30 days after receipt of the asbestos-containing waste material, the permittee shall send a copy of the signed waste shipment record to the waste generator.
- (12) Upon discovery of a discrepancy between the quantity of asbestos-containing waste material designated on a waste shipment record and the quantity actually received, the permittee shall attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the State, local, district, or U.S. EPA regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and The Portsmouth Local Air Agency) if the waste was received from out of State. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.
- (13) The permittee shall submit, upon closure of the facility, a copy of the records of the asbestos waste disposal locations and quantities.
- (14) The permittee shall notify the Portsmouth 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); and
 - d. location of any temporary storage site and the final disposal site.

- (15) The permittee shall notify the Portsmouth Local Air Agency of any load of asbestos-containing material which is rejected, or any non-conforming load disposed of in accordance with the "Asbestos Spill Contingency Plan." Notification shall be provided as soon as possible by a phone contact, followed in writing by the next working day. The written notification shall provide a copy of the waste shipment record, if available, or when waste is not shipped with a waste shipment record, provide available information concerning vehicle identification, source of the load, a description of the load, nature of discrepancy, and the location of disposal. If possible, non-conforming loads of suspect friable material shall be detained, or the location of disposal protected from damage, until the Portsmouth Local Air Agency is informed and provided the opportunity to inspect.
- (16) The permittee shall also submit annual reports that specify the total NMOC, CO, PE, PM-10, NO_x, SO₂, HCl, HF, H₂S, methane, CFC-11, and CFC-12 emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.
- (17) The permittee shall submit semiannual reports and such other notifications and reports to the Administrator and/or the Portsmouth Local Air Agency as are required pursuant to 40 CFR Part 63, Subpart AAAA per the following sections:

40 CFR 63.1980(a)	Submit the annual report described in 40 CFR 60.757(f) every 6 months.
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f) **Testing Requirements**

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), there shall be no visible particulate emissions from the open flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Applicable Compliance Method:

Compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 22 and the procedures specified in 40 CFR Part 60.18

b. Emission Limitation:

Visible particulate fugitive emissions shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the visible particulate emission observations performed in accordance with the procedures specified in Test Method 9 and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

c. Emission Limitations:

Emissions from the NSPS control devices [11,955 scfm total]-(stack emissions) shall not exceed the following:

NMOC emissions shall not exceed 1.93 lbs/hr and 8.44 tons/yr;
CO emissions shall not exceed 79.90 lbs/hour and 350.0 tons/yr;
PE emissions shall not exceed 6.10 lbs/hour and 26.71 tons/yr;
NO_x emissions shall not exceed 21.78 lbs/hr and 95.39 tons/yr;
HCl emissions shall not exceed 8.60 lbs/hr and 37.68 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emissions limitations for enclosed combustors shall be demonstrated through the emissions testing requirements specified in f)(5) below.

Compliance with the hourly emission limitations for open flares shall be demonstrated by the emission factors, control efficiencies (if applicable) and the operational parameters as submitted in PTI application 07-00574 submitted September 20th, 2006. The emission factors used for NMOC, PE, and HCl were USEPA's Landfill Gas Emissions Model along with AP-42 Section 2.4 dated 11/98. The CO and NO_x emission factors were based on flare manufacturer specifications.

The annual emission limitations were established by multiplying the hourly emission limitations by 8,760 and dividing by 2,000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitations compliance with the annual emission limitations will also be demonstrated.

d. Emission Limitations:

Emissions from the NSPS control devices [11,955 scfm total]-(stack emissions) shall not exceed the following:

Methane (CH₄) emissions shall not exceed 299.01 lbs/hr and 1309.66 tons/yr.
VOC emissions shall not exceed 0.77 lbs/hr and 3.35 tons/yr;
HF emissions shall not exceed 1.42 lbs/hr and 6.20 tons/yr;
PM₁₀ emissions shall not exceed 6.10 lb/hr and 26.71 tons/yr;
SO₂ emissions shall not exceed 5.50 lbs/hr and 24.09 tons/yr;
CFC-11 emissions shall not exceed 0.0039 lb/hr and 0.017 ton/yr;
CFC-12 emissions shall not exceed 0.072 lb/hr and 0.32 ton/yr.

Applicable Compliance Methods

If required, compliance with the hourly emission limitations for enclosed combustors shall be demonstrated through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6, and 13 for SO₂, and HF respectively, and 40 CFR Part 51, Appendix M, Method 201 for PM-10. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

Compliance with the hourly methane, VOC, CFC-11, and CFC-12 emission limitations for enclosed combustors and the hourly emission limitations for open flares shall be demonstrated by the emission factors, control efficiencies (if applicable) and the operational parameters as submitted in PTI application 07-00574 submitted September 20th, 2006. The emission factors used were USEPA's Landfill Gas Emissions Model along with AP-42 Section 2.4 dated 11/98.

The annual emission limitations were established by multiplying the hourly emission limitations by 8,760 and dividing by 2,000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitations compliance with the annual emission limitations will also be demonstrated.

e. Emission Limitations:

Fugitive emissions from this emissions unit shall not exceed the following:

CO emissions shall not exceed 37.02 tons/yr;
PE emissions shall not exceed 0.17 ton/yr;
PM₁₀ emissions shall not exceed 0.08 ton/yr;
H₂S emissions shall not exceed 11.58 tons/yr;
VOC emissions shall not exceed 193.73 tons/yr.
CFC-11 emissions shall not exceed 0.99 ton/yr.
CFC-12 emissions shall not exceed 18.26 tons/yr.

Applicable Compliance Method:

Compliance with these emission limitations shall be demonstrated by the emission factors, control efficiencies (if applicable) and the operational parameters as submitted in PTI application 07-00574 submitted September 20th, 2006. The emission factors used were USEPA's Landfill Gas Emissions Model along with AP-42 Section 2.4 dated 11/98 and AP-42 Section 13.2.4 dated 11/06.

f. Emission Limitations:

Fugitive emissions of non-methane organic compounds (NMOC) shall not exceed 488.14 tpy.

Fugitive emissions of CH₄ shall not exceed 75,712 tpy.

Total fugitive emissions of hazardous air pollutants (HAP's) shall not exceed 95.08 tpy.

Fugitive emissions of fluorides (excluding HF) shall not exceed 22.84 tpy.

Applicable Compliance Method:

These emissions represent the highest gas generation/emissions rates which could occur, based on the proposed landfill capacity of 64,213,599 megagrams at the maximum receiving rate of 3,000 tons of waste material per day. The landfill emissions and limitations contained in this permit can be documented as follows:

- i. NMOC emissions were calculated by the Landfill Gas Emission Model (LandGEM), Version 3.02, May 2005.
- ii. CH₄ emissions were calculated by the Landfill Gas Emission Model (LandGEM), Version 3.02, May 2005.
- iii. HAP emissions were calculated by the Landfill Gas Emission Model (LandGEM), Version 3.02, May 2005.
- iv. Fluoride emissions were calculated by Landfill Gas Emission Model (LandGEM), Version 3.02, May 2005.

g. Emission Limitation:

Emissions from the candlestick flares (1,000 scfm total) shall not exceed the following:

CO emissions shall not exceed 22.50 lbs/hr and 98.55 tpy.
CH₄ emissions shall not exceed 25.0 lbs/hr and 109.45 tpy.
NMOC emissions shall not exceed 0.16 lbs/hr and 0.71 tpy.
NO_x emissions shall not exceed 1.2 lbs/hr and 5.26 tpy.
PE/PM₁₀ emissions shall not exceed 0.51 lbs/hr and 2.23 tpy.
SO₂ emissions shall not exceed 0.47 lbs/hr and 2.05 tpy.

Applicable Compliance Method:

Compliance with the hourly emission limitations shall be demonstrated by the emission factors, control efficiencies (if applicable) and the operational parameters as provided in a letter to Portsmouth Local Air Agency on November 27, 2007. The emission factors used were USEPA's Landfill Gas Emissions Model along with AP-42 Section 2.4 dated 11/98.

The annual emission limitations were established by multiplying the hourly emission limitations by 8,760 and dividing by 2,000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitations compliance with the annual emission limitations will also be demonstrated.

h. Emission Limitation:

Emissions from the Non-NSPS Main Open Flare shall not exceed the following:

CO emissions shall not exceed 22.50 lbs/hr and 98.55 tpy.
CH₄ emissions shall not exceed 25.0 lbs/hr and 109.45 tpy.
NMOC emissions shall not exceed 0.16 lbs/hr and 0.71 tpy.
NO_x emissions shall not exceed 1.20 lbs/hr and 5.26 tpy
PE/PM₁₀ emissions shall not exceed 0.51 lbs/hr and 2.23 tpy.
SO₂ emissions shall not exceed 0.47 lbs/hr and 2.05 tpy.

Applicable Compliance Method:

Compliance with the hourly emission limitations shall be demonstrated by the emission factors, control efficiencies (if applicable) and the operational parameters as submitted in PTI application 07-00574 submitted September 20th, 2006. The emission factors used were USEPA's Landfill Gas Emissions Model along with AP-42 Section 2.4 dated 11/98.

The annual emission limitations were established by multiplying the hourly emission limitations by 8,760 and dividing by 2,000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitations compliance with the annual emission limitations will also be demonstrated.

i. Emission Limitation:

There shall be no visible emissions from asbestos-containing materials during on-site transportation, transfer, unloading, deposition or compacting operations.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with Test Method 22 and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.

j. Emission Limitation:

Control efficiency of 98%, by weight, or reduce the outlet NMOC emission concentration to less than 20 ppm.

Applicable Compliance Method:

Emission testing (see f)(5) below), using the following test methods to demonstrate compliance:

NMOC - methods 1 through 4 and 25, 25A, 25C or 18, as appropriate, of 40 CFR Part 60, Appendix A (Alternative U.S. EPA-approved test methods may be used with prior approval from the Portsmouth Local Air Agency.

- (2) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the nitrogen level shall be determined using Method 3C of 40 CFR Part 60, Appendix A, unless an alternative test method is established as allowed by 40 CFR Part 60.752(b)(2)(i).
- (3) When the calculated NMOC emission rate is greater than or equal to 50 megagrams per year (55.1 tpy), the oxygen level shall be determined by an oxygen meter using Method 3A or 3C of 40 CFR Part 60, Appendix A, unless an alternative test method is established as allowed by 40 CFR Part 60.752(b)(2)(i), except that:
 - a. the span shall be set so that the regulatory limit is between 20 and 50% of the span; a data recorder is not required;
 - b. only two calibration gases are required, a zero and span, and ambient air may be used as the span;
 - c. a calibration error check is not required; and
 - d. the allowable sample bias, zero drift, and calibration drift are plus or minus 10%
- (4) When the calculated NMOC rate is greater than or equal to 50 megagrams (55.1 tpy), the permittee shall conduct or have conducted, within 180 days after the installation of the collection and control system, an initial performance test to demonstrate that the open flare can operate in conformance with the requirements specified in 40 CFR Part 60.18. The net heating value of the gas being combusted in the open flare and the actual exit velocity of the open flare shall be determined in accordance with the procedures and methods specified in 40 CFR Part 60.18. The visible emission evaluation shall be conducted in accordance with the procedures specified in section f)(1)a.
- (5) When the calculated NMOC rate is greater than or equal to 50 megagrams (55.1 tpy), the permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing of the new NSPS enclosed combustors shall be conducted within 6 months after initial startup of the control system;
 - b. The emission testing shall be conducted to demonstrate compliance with the PE, NO_x, CO, HCl, and NMOC stack emission limitations specified in b)(1) of these terms;
 - c. The following test methods shall be employed to demonstrate compliance with the emission limitations:

PE, Methods 1 through 5 of 40 CFR Part 60, Appendix A;
NO_x, Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A;
CO, Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A;
HCl, Methods 1 through 4 and 26 of 40 CFR Part 60, Appendix A;
NMOC, Methods 1 through 4 and 25, 25A, 25C or Method 18 as appropriate, of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Portsmouth Local Air Agency;

- d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth Local Air Agency
 - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth 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 Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).
 - f. Personnel from the Portsmouth 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.
 - g. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted 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 Portsmouth Local Air Agency.
- (6) When the calculated NMOC rate is greater than or equal to 50 megagrams (55.1 tpy), the flow rate of landfill gas, Q_{lfg}, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of Appendix A of 40 CFR Part 60.
 - (7) The average NMOC concentration, C_{nmoc}, shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25, 25C or 18, as appropriate, of Appendix A of 40 CFR Part 60. If using Method 18 of Appendix A of 40 CFR Part 60, 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 sample location on the common header pipe shall be before any condensate removal or other gas refining units. The permittee shall divide the NMOC concentration from Method 25C of Appendix A of 40 CFR Part 60 by 6 to convert from C_{nmoc} as carbon to C_{nmoc} as hexane.
 - (8) After the installation of a collection and control system in compliance with 40 CFR Part 60.755, the permittee shall calculate the NMOC emission rate for the purpose of determining when the system can be removed as provided in 40 CFR Part 60.752(b)(2)(v) in accordance with the equation and procedures specified in 40 CFR Part 60.754(b), (b)(1), and (b)(2). The permittee may use another method to determine



landfill gas flow rate and NMOC concentration if the method has been approved by the Ohio EPA as provided in 40 CFR Part 60.752(b)(2)(i)(B).

- g) Miscellaneous Requirements
 - (1) None.