



State of Ohio Environmental Protection Agency

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Columbus, OH 43216-1049

1/28/2010

Certified Mail

Ed Brdicka  
Sunny Farms Landfill  
12500 West County Road 18  
Fostoria, OH 44830

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL  
Facility ID: 0374010199  
Permit Number: P0105883  
Permit Type: Administrative Modification  
County: Seneca

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
No	MACT
Yes	NSPS
Yes	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Please complete a survey at [www.epa.ohio.gov/dapc/permitsurvey.aspx](http://www.epa.ohio.gov/dapc/permitsurvey.aspx) and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, OH 43215

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Northwest District Office. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page <http://www.epa.ohio.gov>.

Sincerely,

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

Cc: U.S. EPA Region 5 *Via E-Mail Notification*  
Ohio EPA DAPC, Northwest District Office

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director





**State of Ohio Environmental Protection Agency  
Division of Air Pollution Control**

**FINAL**

**Air Pollution Permit-to-Install  
for  
Sunny Farms Landfill**

Facility ID: 0374010199  
Permit Number: P0105883  
Permit Type: Administrative Modification  
Issued: 1/28/2010  
Effective: 1/28/2010





**Air Pollution Permit-to-Install**  
for  
Sunny Farms Landfill

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State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0105883  
**Facility ID:** 0374010199  
**Effective Date:** 1/28/2010

## Authorization

Facility ID: 0374010199  
Facility Description: Refuse Systems  
Application Number(s): M0000686  
Permit Number: P0105883  
Permit Description: Administrative modification to correct asbestos related terms and conditions in the permit.  
Permit Type: Administrative Modification  
Permit Fee: \$0.00  
Issue Date: 1/28/2010  
Effective Date: 1/28/2010

This document constitutes issuance to:

Sunny Farms Landfill  
12500 West County Road 18  
Fostoria, OH 44830

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:

Ohio EPA DAPC, Northwest District Office  
347 North Dunbridge Road  
Bowling Green, OH 43402  
(419)352-8461

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

Chris Korleski  
Director



State of Ohio Environmental Protection Agency  
 Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0105883  
**Facility ID:** 0374010199  
**Effective Date:** 1/28/2010

## Authorization (continued)

Permit Number: P0105883  
 Permit Description: Administrative modification to correct asbestos related terms and conditions in the permit.

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

<b>Emissions Unit ID:</b>	<b>F001</b>
Company Equipment ID:	Solid Waste/Asbestos Landfill
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0105883  
**Facility ID:** 0374010199  
**Effective Date:** 1/28/2010

## **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 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 Ohio EPA DAPC, Northwest District Office.



(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 Ohio EPA DAPC, Northwest District Office. 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 Ohio EPA DAPC, Northwest District Office 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 Ohio EPA DAPC, Northwest District Office 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 Ohio EPA DAPC, Northwest District Office 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 Ohio EPA DAPC, Northwest District Office.
- 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 Ohio EPA DAPC, Northwest District Office. 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 through completion of the annual PER covering the last period of operation 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 PER 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 PER, 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 Ohio EPA DAPC, Northwest District Office must be notified in writing of any transfer of this permit.

**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.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0105883  
**Facility ID:** 0374010199  
**Effective Date:** 1/28/2010

## **B. Facility-Wide Terms and Conditions**



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0105883  
**Facility ID:** 0374010199  
**Effective Date:** 1/28/2010

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.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0105883  
**Facility ID:** 0374010199  
**Effective Date:** 1/28/2010

## **C. Emissions Unit Terms and Conditions**



**1. F001, Solid Waste/Asbestos Landfill**

**Operations, Property and/or Equipment Description:**

Asbestos, municipal solid waste (MSW), and construction and demolition debris (C&DD) landfill operations

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 operations(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. 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)	54.9 tons of fugitive nonmethane organic compounds (NMOC)/year  36,800 tons of fugitive methane/year  38.2 tons of fugitive particulate emissions (PE)/year  5.24 tons fugitive particulate matter less than 10 microns (PM10)/yr  15.0 tons carbon monoxide (CO)/year  Visible fugitive PE shall not exceed 20% opacity as a three-minute average  Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust [See b)(2)i. through b)(2)l.]  Hydrogen Sulfide Emissions Contingency Plan [See b)(2)m.]
b.	40 CFR 60.750 et seq. (NSPS Subpart WWW)	See b)(2)a., b)(2)b., b)(2)e., and d) through f).
c.	40 CFR 63.1930 et seq. (MACT Subpart AAAA)	None [See Section b)(2)f.]
d.	OAC rule 3745-17-07(B)(1)	None [See Section b)(2)g.]
e.	OAC rule 3745-17-08(B)	None [See Section b)(2)h.]



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	40 CFR 61.140 et seq. [NESHAP Subpart M]	See b)(2)n.

(2) Additional Terms and Conditions

- a. The permittee (owner or operator), for the MSW landfill having a design capacity greater than 2.5 million cubic meters by volume or 2.5 million megagrams by mass, shall calculate the landfill nonmethane organic compounds (NMOC) emission rate annually or may elect to calculate and submit an estimate of the annual NMOC emission rate for the next 5-year period, in lieu of an annual report; and if the estimated NMOC emission rate can be documented to be less than 50 megagrams for each of the next five consecutive years. The estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for the next 5 years. The NMOC emissions for each year shall be calculated using the procedures and appropriate equation contained in this permit [and 40 CFR 60.754(a)]. The landfill NMOC emissions can be calculated in 1, 2 or 3 Tiers as follows:
  - i. Tier 1: the NMOC emissions are calculated using the appropriate formula and the default values from 40 CFR 60.754(a)(1);
  - ii. Tier 2: the NMOC emissions are calculated, using the appropriate formula from 40 CFR 60.754(a)(1), using the site specific NMOC concentration (instead of the default value), obtained through the sampling procedures specified in 40 CFR 60.754(a)(3), using either Method 25C or Method 18 of Part 60 appendix A;
  - iii. Tier 3: the NMOC emissions are calculated, using the appropriate formula from 40 CFR 60.754(a)(1), using the site-specific methane generation rate constant, k, determined as required in 40 CFR 60.754(a)(4), using Method 2E of Part 60 appendix A, and the site-specific NMOC concentration determined from the sampling in Tier 2, 40 CFR 60.754(a)(3).

If the actual waste acceptance rate exceeds the estimated acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the director (the Ohio EPA, Northwest District Office). 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, or the reporting frequency shall be changed to annual.

The initial 5-year NMOC emissions report shall be submitted to the director by January 31st, following the first year in which the landfill design capacity exceeded 2.5 million cubic meters by volume or 2.5 million megagrams by mass, and shall cover the preceding calendar year and the 5 consecutive years that follow. The NMOC emissions report shall be submitted by January 31st every 5 years, until a collection and control system is installed in compliance with 60.752(b)(2) and operating in accordance with 40 CFR 60.753 and 60.755. [40 CFR 60.752(b), 60.754(a), & 60.757(b)]



- b. As long as the calculated NMOC emission rate is calculated to be less than 50 megagrams per year the permittee shall:
  - i. submit the initial 5-year NMOC emission rate report and either annual or 5-year emission reports thereafter; and
  - ii. recalculate the NMOC emission rate following the fifth year and every 5 years thereafter, using the procedures and calculation specified in 40 CFR 60.754(a) and contained in the testing section of this permit.

If Tier 2 is used to calculate the estimated annual NMOC emissions, the site-specific NMOC concentration shall be re-tested every 5 years, as required in 40 CFR 60.754(a)(3).

If Tier 3 is used to calculate the estimated annual NMOC emissions, the initial/original site-specific methane generation rate constant shall be used in all future annual NMOC emission calculations and reports.

The NMOC emissions report shall be submitted by January 31st every 5 years (unless reverting to annually), until such time a collection and control system is installed in compliance with 60.752(b)(2) and operated in accordance with 40 CFR 60.753 and 60.755, or the landfill is closed.

Unless other arrangements are made with the director, the permittee shall submit a permit to install (PTI) application with the first annual report where the calculated NMOC emissions exceed 50 megagrams per year, in order to permit the facility for the collection and control system(s) required by the Standards of Performance for Municipal Solid Waste Landfills, Subpart WWW.

[40 CFR 60.752(b)]

- c. There shall be no open burning, in violation of OAC Chapter 3745-19, at this facility.
- d. Pursuant to the authority in ORC section 3704.03(L), any representative of the director may, upon presentation of proper identification, enter at any reasonable time upon any portion of the property where this landfill is located, including any improvements thereon, to make inspections; take samples; conduct tests; 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.
- e. The permittee shall submit a permit to install (PTI) modification application and be issued a new PTI, before and where an expansion or an increase in the waste material received increases the NMOC emissions to equal or exceed 50 megagrams/year. If the amended design capacity report is not submitted with the PTI application, the permittee shall submit an amended design capacity report to the director within 90 days of the increase in the maximum design capacity of the landfill.
- f. This facility is not subject to 40 CFR Part 63, Subpart AAAA, pursuant to 40 CFR 63.1935.



- g. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- h. The facility is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B)(1).
- i. The landfill fugitive dust operations/sources that are covered by this permit and subject to the requirements of OAC rule 3745-31-05 are listed below:
  - i. daily cover and handling and placement
  - ii. solid waste handling (dumping)
  - iii. spreading, grading and compaction
  - iv. truck loading and unloading
  - v. bulldozing
  - vi. storage pile activities (loading, unloading, wind erosion)
- j. The permittee shall employ best available control measures for the above-identified landfill fugitive dust operations/sources 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 treat with water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance.
- k. The above-mentioned control measures shall be employed if the permittee determines, 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.

Implementation of the control measures shall not be necessary for fugitive dust sources which are 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.
- l. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.
- m. 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.

- n. The requirements established pursuant to this rule are less stringent or equivalent to the requirements of OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

- (1) The permittee is limited to accepting no more than 5,000 tons of total waste including MSW and C&DD material (as defined in Ohio Revised Code 3714.01 (C)) per day.
- (2) There shall be no visible emissions from asbestos-containing waste materials (ACM) during on-site transportation, transfer, deposition, or compacting operations.
- (3) The permittee shall inspect each load of ACM delivered to the facility. The inspection shall consist of a visual examination to ensure that each shipment of ACM is received intact, leak-tight containers labeled with appropriate hazard warning labels, the name of the 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.

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.

- (4) Deposition and burial operations shall be conducted in a manner which prevents handling by equipment or persons that causes asbestos-containing waste materials to be broken up or dispersed before the materials are buried.
- (5) The permittee shall cover and compact asbestos wastes in accordance with the following:
  - a. As soon as practicable 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-ACM. Once the ACM are covered, the area may be compacted.
  - b. Care should 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 condition 'a' above.
  - c. ACM shall be separated from the landfill final grade by no less than 24 inches of compacted non-ACM and a permanent cover of vegetation, or in accordance with current requirements for closure, whichever is more stringent.

- (6) The permittee shall implement and maintain an "Asbestos Disposal Operating Procedure and Spill Contingency Plan" ("Plan") consisting of; authorized personnel training,



inspection and disposal operating procedures, non-conforming load response procedures, inventory and maintenance procedures for safety and emissions control equipment, record keeping procedures, and 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.

- (7) 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.
- (8) 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 of the asbestos-containing waste material. A hazard warning shall display the following information 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:

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

The letter sizes and styles shall be of a visibility at least equal to the following specifications: one inch sans serif, gothic or block in the first and second line; and at least three-fourths inches sans serif, gothic or block in the third line; and fourteen point gothic in the fourth line. Spacing between any two lines must be at least equal to the height of the upper of the two lines.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall keep for at least 5 years, up-to-date, readily accessible, on-site records of the design capacity report which showed the landfill capacity to equal or exceed 2.5 million megagrams and/or 2.5 million cubic meters, 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.
- (2) The permittee shall maintain records of the total volume of material received each day. These records shall be maintained for a period of not less than three years, and the records shall be available for review by the director or his representative during normal business hours.
- (3) This solid waste landfill has a design capacity greater than 2.5 million megagrams or 2.5 million cubic meters; therefore, the permittee shall calculate the NMOC emission rate for the landfill using the procedures specified in 40 CFR 60.754(a)(1) and this permit, and shall maintain records of such calculations. Except as provided in 60.757(b)(1)(ii) (where NMOC emissions can be calculated to be less than 50 megagrams in each of the next 5 consecutive years), the NMOC emission rate shall be re-calculated and reported annually.



- (4) The permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing and/or nondegradable wastes, excluded from collection as provided in 40 CFR 60.759(a)(3)(i), as well as any nonproductive areas excluded from collection as provided in 40 CFR 60.759(a)(3)(ii).
- (5) Except as otherwise provided in this section, the permittee shall perform inspections of the landfill fugitive dust operations/sources in accordance with the following frequencies:

<b>Landfill Fugitive Dust Operation/Source</b>	<b>Minimum Inspection Frequency</b>
daily cover and handling and placement	once during each day of operation
solid waste handling (dumping)	once during each day of operation
spreading, grading and compaction	once during each day of operation
truck loading and unloading	once during each day of operation
bulldozing	once during each day of operation
storage pile activities [as in b)(2)i.vi]	once during each day of operation

- (6) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures for particulate emissions. The inspections shall be performed during representative, normal operating conditions. No inspection shall be necessary for a for a landfill fugitive dust operation/source 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 event shall be performed as soon as such event(s) has (have) ended, except if the next inspection is within one week.
- (7) The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
  - c. the dates the control measure(s) was (were) implemented; and
  - d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in d)(7)d shall be kept separately for each landfill fugitive dust operation/source listed above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

- (8) The permittee shall maintain daily records of the following information:
  - a. The amount of MSW material accepted by the landfill, in tons per day.
  - b. The total annual, year to date, amount of MSW material accepted by the landfill, in tons per year [sum of d)(8)a for each calendar day to date from January to December].
  - c. The amount of C&DD material accepted by the landfill as defined in Ohio Revised Code 3714.01 (C), in tons per day.



- The total annual, year to date, amount of C&DD material accepted by the landfill as defined in Ohio Revised Code 3714.01 (C), in tons per year [sum of d)(8)c for each calendar day to date from January to December].
- d. The amount of total waste accepted by the landfill, in tons per day [sum of d)(8)a and d)(8)c for each calendar day].
- (9) The permittee shall maintain a waste shipment record for all ACM. 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. A 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 sections 'a' through 'j' above.
  - 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. A signature by the waste disposal site operator to acknowledge receipt of the asbestos-containing waste shipment described by the waste generator in 'a' through 'i' of this section, except as noted in the discrepancy indication space.

As soon as possible and no longer than thirty days after receipt of the waste, send the original completed copy of the signed waste shipment record to the waste generator and retain the remaining copy for the waste site disposal record.

- (10) 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.

e) Reporting Requirements

- (1) Until a collection and control system meeting the requirements of 40 CFR 60.753 and 60.755 is installed, the permittee shall submit an annual NMOC emission rate report to the director, except for the provisions for the "5-year" estimate below. The director may request such additional information as may be necessary to verify the reported NMOC emission rate.

- a. The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate, calculated using the formula from 40 CFR 60.754(a), also contained in this permit:

- i. The initial NMOC emission rate report may be combined with the initial design capacity report. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for below.

- ii. If the estimated NMOC emission rate as reported in the annual report to the director 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 director. 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 director. 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.

- b. The permittee is exempted from the requirements of submitting the annual or 5-year NMOC emission estimate report, following the installation of a collection and control system meeting the requirements of 40 CFR 60.753 and 60.755 (or other option under 40 CFR 60.752(b)(2)(iii)), or when the landfill is closed.

- (2) Unless otherwise approved by the director, the permittee shall submit a PTI application along with the first NMOC emissions report in which the emission rate exceeds 50 megagrams per year; and a collection and control system design plan, if applicable, shall be submitted within 1 year of the first NMOC emissions report in which the emission rate exceeds 50 megagrams per year, except as follows:



- a. If the permittee elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis, as provided in 40 CFR 60.754(a)(3), and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted to the director within 180 days of the first calculated emission rate exceeding 50 megagrams per year.
  - b. If the permittee elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in 40 CFR 60.754(a)(4), and the resulting NMOC emission rate is less than 50 megagrams per year, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance of 50 megagrams per year. The revised NMOC emission rate report, based on the provisions of 40 CFR 754(a)(4) and the resulting site-specific methane generation rate constant (k), shall be submitted to the director within 1 year of the first calculated emission rate exceeding 50 megagrams per year.
- (3) The permittee shall submit a closure report to the Division of Air Pollution Control at the appropriate Ohio EPA office of jurisdiction, within 30 days of waste acceptance cessation. Permanent closure shall be conducted in accordance with the requirements of 40 CFR 258.60; and the Ohio EPA may request additional information, as may be necessary, to verify that all of these conditions are met. 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 60.7(a)(4).
- (4) The permittee shall submit quarterly deviation reports that identify any of the following occurrences:
- a. Each day during which an inspection 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; and
  - b. Each instance when a control measure that was to be implemented as a result of an inspection was not implemented.
- (5) The permittee shall submit deviation reports that identify any of the following occurrences:
- a. each day during which an inspection was not performed by the required frequency;
  - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented;
  - c. any day where more than 5,000 tons per day of total waste (which includes MSW and C&DD material) was accepted.



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

- (6) The permittee shall submit quarterly reports summarizing the asbestos disposal activities. The 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.
  - 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.

- (7) As soon as possible and no longer than 30 days after receipt of the waste (ACM), the permittee shall send a copy of the signed waste shipment record to the waste generator.
- (8) Upon discovering a discrepancy between the quantity of waste 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, if different, the Northwest District Office. Describe the discrepancy and attempts to reconcile it and submit a copy of the waste shipment record along with the report.
- (9) The permittee shall submit, upon closure of the facility, a copy of the records of the asbestos waste disposal locations and quantities.
- (10) The permittee shall notify the Northwest District Office 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 the 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 Northwest District Office may require changes in the proposed emission control procedures); and
  - d. Location of any temporary storage site and the final disposal site.



- (11) The permittee shall notify the Northwest District Office 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 (WSR), if available, or when waste is not shipped with a WSR, 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 Ohio EPA is informed and provided the opportunity to inspect.
- (12) Pursuant to the New Source Performance Standards (NSPS), the source owner/operator is hereby advised of the requirements to report the following at the appropriate times:
  - a. construction date (no later than 30 days after such date);
  - b. actual start-up date (within 15 days after such date); and
  - c. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:  
Ohio Environmental Protection Agency  
DAPC - Permit Management Unit  
Lazarus Government Center  
P.O. Box 1049  
Columbus, OH 43216-1049

and

Ohio EPA, Northwest District Office  
347 North Dunbridge Road  
Bowling Green, Ohio 43402  
[OAC 3745-31-05(A)(3) and 3745-77-07(C)(1)]

f) Testing Requirements

- (1) The permittee shall calculate the NMOC emission rate using either the equation provided in 40 CFR 60.754(a)(1)(i) or the equation provided in 40 CFR 60.754(a)(1)(ii), and specified below. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in 40 CFR 60.754(a)(1)(i), for part of the life of the landfill. The default values to be used in both equations are 0.05 per year for "k", unless a site-specific methane generation rate constant is determined as specified in a Tier 3 determination; 170 cubic meters per megagram for "L0"; and 4,000 ppm by volume as hexane for "CNMOC", unless samples are collected and the actual NMOC concentration is determined, as specified in a Tier 2 determination.
  - a. The following equation shall be used if the actual year-to-year solid waste acceptance rate is known:

$$M_{nmoc} = \sum (i = 1 \text{ to } n) \text{ of } 2(k)(L_o)(M_i)(e^{(-kt_i)})(C_{nmoc})(3.6 \times 10^{-9})$$

where,

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



- k = methane generation rate constant, year<sup>-1</sup>
- L<sub>o</sub> = methane generation potential, cubic meters per megagram solid waste
- M<sub>i</sub> = mass of solid waste in the ith section, megagrams
- t<sub>i</sub> = age of the ith section, years
- C<sub>nmoc</sub> = concentration of NMOC, parts per million by volume as hexane
- 3.6 x 10<sup>-9</sup> = conversion factor
- n = number of sections

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill, when calculating the value for M<sub>i</sub>, if documentation of the nature and amount of such wastes is maintained.

- b. The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown:

$$M_{nmoc} = 2(L_o)(R)[(e^{-kc} - e^{-kt})(C_{nmoc})(3.6 \times 10^{-9})]$$

Where:

- M<sub>nmoc</sub> = mass emission rate of NMOC, megagrams per year
- L<sub>o</sub> = methane generation potential, cubic meters per megagram solid waste
- R = average annual acceptance rate, megagrams per year
- k = methane generation rate constant, year<sup>-1</sup>
- t = age of landfill, years
- C<sub>nmoc</sub> = concentration of NMOC, parts per million by volume as hexane
- c = time since closure, years; for active landfill c=0 and e<sup>-kc</sup>=1
- 3.6 x 10<sup>-9</sup> = conversion factor

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

- (2) The permittee shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year. If the calculated NMOC emission rate is calculated to be less than 50 megagrams per year, then the permittee shall submit an emission rate report as required in 40 CFR 60.757(b)(1), and shall recalculate the NMOC mass emission rate annually and submit the report to the director, as required under 40 CFR 60.752(b)(1) and as provided in this permit.

If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the permittee shall submit, within one year, a collection and control system design plan, prepared by a professional engineer, and shall install it in compliance with 40 CFR 60.752(b)(2); or shall determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in a Tier 2 determination, in 40 CFR 60.754(a)(3).

- (3) For a Tier 2 determination of the NMOC emission rate, the permittee shall determine the NMOC concentration using the following sampling procedure:
  - a. The permittee shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than



25 hectares in area, only 50 sample probes are required. The sample probes should be located to avoid known areas of nondegradable solid waste.

- b. The permittee shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of Appendix A of 40 CFR Part 60. Method 18 of Appendix A of 40 CFR Part 60 may be used to analyze the samples collected by the Method 25 or 25C sampling procedure.
- c. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter, unless evidence can be provided to substantiate the accuracy of smaller volumes. The compositing shall be terminated before the cylinder approaches ambient pressure where measurement accuracy diminishes.
- d. If using Method 18, the permittee must identify all compounds in the sample, and, at a minimum, test for those compounds published in the most recent Compilation of Air Pollutant Emission Factors (AP-42), minus carbon monoxide, hydrogen sulfide, and mercury. At a minimum, the instrument must be calibrated for each of the compounds on the list. The concentration of each Method 18 compound shall be converted to CNMOC as hexane by multiplying it by the ratio of its carbon atoms divided by six.
- e. The permittee shall also divide the NMOC concentration determined from Method 25 or 25C of Appendix A of 40 CR Part 60 by six, to convert from CNMOC as carbon to CNMOC as hexane.
- f. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes, provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe before the gas moving or condensate removal equipment. For these systems, a minimum of three samples must be collected from the header pipe.
- g. If more than the required number of samples is taken, all samples must be used in the analysis.
- h. The permittee shall recalculate the NMOC mass emission rate using the average NMOC concentration from the collected samples instead of the default value.
- i. If the resulting mass emission rate, recalculated using the site-specific NMOC concentration, is equal to or greater than 50 megagrams per year, the permittee shall either:
  - i. comply with 40 CFR 60.752(b)(2) and submit, within one year, a collection and control system design plan, and install the system within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, as required by rule, or



- ii. determine the site-specific methane generation rate constant,  $k$ , in a Tier 3 determination, and recalculate the NMOC emission rate using the site-specific NMOC concentration from Tier 2 and site-specific methane generation rate constant,  $k$ , from Tier 3.
  - j. If the resulting mass emission rate, recalculated using the site-specific NMOC concentration, is less than 50 megagrams per year, the permittee shall submit annual reports (or 5-year submission per 40 CFR 60.757(b)(1)(ii)) for the estimated NMOC emissions, recalculated each year using the site-specific NMOC concentration and as provided in 40 CFR 60.757(b)(1). The site-specific NMOC concentration shall be retested, as above, every 5 years.
- (4) For a Tier 3 determination of the NMOC emission rate, the permittee shall determine the site-specific methane generation rate constant, using the procedures provided in Method 2E of Appendix A of 40 CFR, Part 60. The permittee shall estimate the NMOC mass emission rate using the equations from 40 CFR 60.754(a)(1), and included in this permit, using a site-specific methane generation rate constant  $k$  and the site-specific NMOC concentration from Tier 2, instead of the default values provided with the calculation in the rule. The permittee shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.
- a. If the resulting NMOC mass emission rate, calculated using the site-specific methane generation rate constant from Tier 3 and the site-specific concentration of NMOC from Tier 2, is equal to or greater than 50 megagrams per year, the permittee shall comply with 40 CFR 60.752(b)(2) and submit, within one year, a collection and control system design plan, and install the system within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, as required by rule; or
  - b. If the resulting NMOC mass emission rate, calculated using the site-specific methane generation rate constant from Tier 3 and the site-specific concentration of NMOC from Tier 2, is less than 50 megagrams per year, the permittee shall submit annual reports (or 5-year submission per 40 CFR 60.757(b)(1)(ii)) for the estimated NMOC emissions, recalculated each year using the site-specific methane generation rate constant  $k$  and the site-specific NMOC concentration from Tier 2, and submitted as provided in 40 CFR 60.757(b)(1).
  - c. The site-specific NMOC concentration shall be retested, as above, every 5 years, to be used in the NMOC emission estimate calculations. However, the calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.
- (5) The permittee may use other methods to determine the NMOC concentration or site-specific methane generation rate constant  $k$ , as an alternative to the methods required in 40 CFR 754(a)(3) or (4), only if the method has been approved by the Administrator of the U.S. Environmental Protection Agency.
- (6) When calculating emissions for PSD purposes, the permittee shall estimate the NMOC emission rate, for comparison to the PSD major source and significance levels in 40 CFR 51.166 or 40 CFR 52.21 using AP-42 or other approved measurement procedures.



(7) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

- a. Emission Limitations:  
54.9 tons NMOC /year  
36,800 tons methane /year

**Applicable Compliance Method:**

Emissions shall not exceed these values based on the calculations referenced below. These calculations represent the highest emission rates which could occur based on US EPA's Landfill Gas Emission Model (LandGEM).

The maximum gas generation/emissions were calculated or predicted using LandGEM, based on the proposed landfill capacity of (9,610,000 megagrams) divided over approximately 46 years of proposed operation, at an average maximum receiving rate of 209,000 megagrams of waste material per year. Predictions are for year 2021.

- i. NMOC concentrations and emissions were determined according to 40 CFR 60, Appendix A, Method 25C and LandGEM (Tier 2 value of 132).
- ii. CH4 emissions were estimated according to US EPA's AP-42, Compilation of Air Pollution Emission Factors, Chapter 2.4, for municipal solid waste landfills, (11/98) and LandGEM.

- b. Emission Limitation:  
38.21 tons/year of fugitive PE and 5.24 tons/year of fugitive PM10

**Applicable Compliance Method:**

Compliance with fugitive PE and PM10 limitations shall be determined by calculations using the information in the table below:

<b>Activity</b>	<b>PE Emission Factor (PM10 scaling/ratio factor)</b>	<b>Source of Emission Factor or Equation</b>	<b>Annual Basis</b>	<b>Total Emissions (tons/year)</b>
Truck Loading - Landfill Soil Cover	0.0005 lb/ton 0.0002 lb/ton	AP-42, Section 13.2.4 (1/95)	100,000 tons	PE - 0.03 PM <sub>10</sub> - 0.01
Truck Unloading Landfill Soil Cover	0.0005 lb/ton 0.0002 lb/ton	AP-42, Section 13.2.4 (1/95)	100,000 tons	PE - 0.03 PM <sub>10</sub> - 0.01
Truck Loading - Construction	0.0008 lb/ton 0.0004 lb/ton	AP-42, Section 13.2.4 (1/95)	301,650 tons	PE - 0.12 PM <sub>10</sub> - 0.05
Truck Unloading - Construction	0.0008 lb/ton 0.0004 lb/ton	AP-42, Section 13.2.4 (1/95)	301,650 tons	PE - 0.12 PM <sub>10</sub> - 0.05
Waste Dumping	0.0005 lb/ton 0.0002 lb/ton	AP-42, Section 13.2.4 (1/95)	1,825,000 tons	PE - 0.47 PM <sub>10</sub> - 0.22



Bulldozer - Daily Cover	2.1087 lb/dozer hr 0.2775 lb/dozer hr	AP-42, Section 11.9-1 (7/98)	1,460 hours	PE - 1.54 PM <sub>10</sub> - 0.20
Bulldozer - Construction	2.1087 lb/dozer hr 0.2775 lb/dozer hr	AP-42, Section 11.9-1 (7/98)	2,280 hours	PE - 3.05 PM <sub>10</sub> - 0.40
Soil Removal Scraper - Construction	0.0580 lb/ton 0.0075 lb/ton	AP-42, Section 11.9-4 (7/98)	188,400 tons	PE - 5.46 PM <sub>10</sub> - 0.71
Soil Removal Scraper - Landfill	0.0580 lb/ton 0.0075 lb/ton	AP-42, Section 11.9-4 (7/98)	12,000 tons	PE - 0.35 PM <sub>10</sub> - 0.05
Bulldozer - Waste Spreading	1.8388 lb/dozer hr 0.2419 lb/dozer hr	AP-42, Section 11.9-1 (7/98)	8,760 hours	PE - 8.05 PM <sub>10</sub> - 1.06
Wind Erosion - Construction	0.3800 ton/acre/yr 0.0494 ton/acre/yr	AP-42, Section 11.9-4 (7/98)	40 acres	PE - 15.20 PM <sub>10</sub> - 1.98
Wind Erosion - Landfill	0.3800 ton/acre/yr 0.0494 ton/acre/yr	AP-42, Section 11.9-4 (7/98)	10 acres	PE - 3.80 PM <sub>10</sub> - 0.49

c. Emission Limitation:

15.0 tons/year of CO

Applicable Compliance Method:

The permittee shall demonstrate compliance through calculations using the equations in AP-42, Section 2.4, equation #1 and #4 (dated 11/98) and the Landfill Gas Emissions Model (LandGEM) with a total landfill capacity of 9,610,000 tons of compacted waste.

d. Emission Limitation:

Visible fugitive PE shall not exceed 20% opacity as a three-minute average

Applicable Compliance Method:

If required, compliance with the visible emission limitation listed above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

g) Miscellaneous Requirements

- (1) The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements for 40 CFR Part 60 are also federally enforceable.
- (2) Upon closure of the facility, the permittee shall comply with the following provisions of OAC rule 3745-20-07 and shall submit a copy of the records of the asbestos waste disposal locations and quantities to the Director (Northwest District Office).



- a. Each owner or operator of an inactive asbestos waste disposal site shall either:
  - i. Discharge no visible emissions to the outside air from an inactive waste disposal site; or
  - ii. Cover the asbestos-containing waste material with at least six inches of non-asbestos- containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material; or
  - iii. Cover the asbestos-containing material with at least two feet of compacted non-asbestos-containing material and maintain the cover to prevent exposure of the asbestos-containing waste material.
- b. Unless a natural barrier adequately deters access by the general public, each owner or operator of an inactive asbestos waste disposal site shall install and maintain warning signs and fencing as follows, or comply with g)(2)a.ii or g)(2)a.iii:
  - i. Display warning signs at all entrances and at intervals of three hundred feet or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited. The warning signs must conform to the requirements of g)(2)f.
  - ii. Fence the perimeter of the site in a manner adequate to deter access by the general public.
  - iii. Upon request and submission of appropriate information, the Director will determine whether a fence or a natural barrier adequately deters access by the public.
  - iv. When requesting a determination on whether a natural barrier adequately deters public access, supply information enabling the Director to determine whether a fence or a natural barrier adequately deters access by the general public.
- c. The owner or operator may use an alternative control method that has received prior approval of the Director rather than comply with the requirements of g)(2)a or g)(2)b.
- d. Each owner or operator of an inactive waste disposal site shall notify the Director in writing at least forty-five days prior to excavating or otherwise disturbing or removing any asbestos-containing waste material. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Director at least ten working days before excavation begins. In no event shall excavation begin earlier than the date specified in the original notification. Each owner or operator shall include the following information in the notice:
  - i. Scheduled starting and completion dates.
  - ii. Reason for disturbing the waste.



- iii. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing material. If deemed necessary, the director may require changes in the emission control procedures to be used.
- iv. Location of any temporary storage site and the final disposal site.
- e. Within sixty days of a site becoming inactive, record a notation of the presence of asbestos-containing material on the deed to the facility property and on any other instrument that would normally be examined during the title search; this notation will, in perpetuity, notify any potential purchaser of the property that:
  - i. The land has been used for the disposal of asbestos-containing waste material; and
  - ii. The survey plot and record of the location and quantity of asbestos-containing waste disposed of within the disposal site required in paragraph (C)(2) of rule 3745-20-06 of the Ohio Administrative Code has been filed with the Director; and
  - iii. The site is subject to Chapter 3745-20 of the Ohio Administrative Code and 40 CFR Part 61, Subpart M.
- f. The warning signs referenced in g)(2)b.i must:
  - i. Be posted in such a manner and location that a person can easily read the legend; and
  - ii. Conform to the requirements for a twenty inch by fourteen inch upright format warning sign and display the following legend in the lower panel with letter sizes of at least one inch sans serif, gothic, or block. Spacing between any two lines must be at least equal to the height of the upper of the two lines:

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