



Environmental  
Protection Agency

Ted Strickland, Governor  
Lee Fisher, Lt. Governor  
Chris Korleski, Director

11/30/2010

Certified Mail

Mr. David Murphy  
Noble Road Landfill  
10795 Hughes Road  
Cincinnati, OH 45251

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL  
Facility ID: 0370000134  
Permit Number: P0104115  
Permit Type: Administrative Modification  
County: Richland

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:

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 pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Kevin Boyce," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission 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 can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: U.S. EPA  
Ohio EPA-NWDO; Canada





**FINAL**

**Division of Air Pollution Control  
Permit-to-Install  
for  
Noble Road Landfill**

Facility ID: 0370000134  
Permit Number: P0104115  
Permit Type: Administrative Modification  
Issued: 11/30/2010  
Effective: 11/30/2010





Division of Air Pollution Control
Permit-to-Install
for
Noble Road Landfill

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 ..... 10
15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations ..... 10
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, Municipal solid waste landfill with asbestos disposal ..... 14



## Authorization

Facility ID: 0370000134

Facility Description: MSW landfill with asbestos disposal.

Application Number(s): M0000286

Permit Number: P0104115

Permit Description: Administrative modification to the municipal solid waste landfill with asbestos removal to increase the sulfur dioxide emission limit for the existing control device.

Permit Type: Administrative Modification

Permit Fee: \$100.00

Issue Date: 11/30/2010

Effective Date: 11/30/2010

This document constitutes issuance to:

Noble Road Landfill  
170 Noble Road East  
Shiloh, OH 44878

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



## Authorization (continued)

Permit Number: P0104115  
Permit Description: Administrative modification to the municipal solid waste landfill with asbestos removal to increase the sulfur dioxide emission limit for the existing control device.

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>P999</b>
Company Equipment ID:	Municipal solid waste landfill Inc. asbestos disposal
Superseded Permit Number:	03-17423
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 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 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.

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



1. P901, Municipal solid waste landfill with asbestos disposal

Operations, Property and/or Equipment Description:

Municipal solid waste landfill with asbestos disposal

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)	17.0 tons of fugitive particulate emissions (PE)/year  10.1 tons of fugitive of particulate matter less than 10 microns (PM10)/year  Visible fugitive PE shall not exceed 20% opacity as a three-minute average [from operations not associated with asbestos-containing material (ACM)]  Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust [See Sections b)(2)r. through b)(2)u.]  44.2 tons of fugitive nonmethane organic compounds (NMOC)/year  5237 tons of fugitive methane/year  58.0 lbs of carbon monoxide (CO)/hour; 254.03 tons of CO/year (flare emissions)  5.86 lbs of nitrogen oxides (NOx)/hour; 25.66 tons of NOx/year (flare emissions)  9.08 lbs of sulfur dioxide (SO2)/hour; 39.73 tons of SO2/year (flare emissions)



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>1.03 of NMOC/hour; 4.50 tons of NMOC/year (flare emissions)</p> <p>1.02 lb of hydrogen chloride (HCl)/hour; 4.48 tons of HCl/year (flare emissions)</p> <p>2.49 lbs of particulate matter less than 10 microns (PM10)/hour; 10.9 tons PM10/year (flare emissions) [All particulate emissions from the flare are PM10]</p> <p>See Section b)(2)a.</p> <p>See Sections c)(8) through c)(14) for requirements and limitations associated with asbestos-containing material (ACM)</p>
b.	40 CFR 60.750 et seq. (NSPS Subpart WWW)	See Sections b)(2)b. through b)(2)q.; d)(1) through d)(13); e)(1) through e)(3) and e)(5); f)(1) through f)(4); g)(2) through g)(4)
c.	40 CFR 63.1930 et seq. (MACT Subpart AAAA)	See Sections c)(7); e)(3); g)(1)
d.	OAC rule 3745-17-08(B)	none [See Section b)(2)w.]
e.	OAC rule 3745-17-07(B)(1)	none [See Section b)(2)v.]
f.	40 CFR, Part 61, Subpart M	See Section b)(2)y.

(2) Additional Terms and Conditions

- a. The requirements of this rule also includes compliance with the requirements of 40 CFR 60 Subpart WWW and 40 CFR 63 Subpart AAAA.
- b. An annual NMOC emission rate report submitted in April 2004 as required by 40 CFR 60.757(b) indicated the calculated NMOC emission rate exceeded 50 megagrams per year requiring the following within 30 months after the April 2004 annual report:
 

The permittee shall install a collection and control system that captures the gas generated within the landfill as required in either b)(2)c. or b)(2)d. below.

[40 CFR 60.752(b)(2)(ii)]
- c. An active collection system shall:
  - i. 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. 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. collect gas at a sufficient extraction rate; and
- iv. be designed to minimize off-site migration of subsurface gas.

[40 CFR 60.752(b)(2)(ii)(A)]

- d. A passive collection system shall:

- i. comply with the provisions specified in b)(2)c. (as applicable); and
- ii. be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR 258.40. [Additional liner requirements under OAC rules 3745-27-06 and 3745-27-07 may apply.]

[40 CFR 60.752(b)(2)(ii)(B)]

- e. The permittee shall route all the collected gas to a control system that complies with the requirements for flares in b)(2)f., b)(2)g., and b)(2)h.

[40 CFR 60.752(b)(2)(iii)]

- f. Flares shall be designed and operated with no visible emissions as determined by the Method 22 of Appendix A of 40 CFR, Part 60, except for a periods not to exceed a total of 5 minutes during any 2 consecutive hours. The observation period for compliance determination is 2 hours and shall be used according to Method 22.

Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of flame.

The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by 40 CFR 60 Appendix A Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

[40 CFR 60.752(b)(2)(iii)(A), 40 CFR 60.18]

- g. Flares 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 flare is nonassisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$H_t = K \times (\text{summation of } l \text{ from } 1 \text{ to } n \text{ for } C_i H_i)$  where:

$K = \text{constant, } 1.740 \times 10^{-7} [(1/\text{ppm})(\text{g mole/scm})(\text{MJ/Kcal})]$   
where the standard temperature for (g mole/scm) is 20 degree Celsius;

Ht = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 degree Celsius and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 degree Celsius;

Ci = Concentration of sample component I in ppm on a wet basis, as measured for organics by 40 CFR 60 Appendix A Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 (Incorporated by reference as specified in 40 CFR 60.17); and

Hi = Net heat of combustion of sample component I, kcal/g mole at 25 degree Celsius and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated.

[40 CFR 60.752(b)(2)(iii)(A), 40 CFR 60.18]

- h. Steam-assisted and nonassisted flares shall be designed for and operated as follows:
- i. Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by dividing the volumetric flow rate (in units of standard temperature and pressure) as determined by 40 CFR 60 Appendix A Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip,) less than 18.3 m/sec (60 ft/sec), except as provided in ii and iii below.
  - ii. Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by dividing the volumetric flow rate (in units of standard temperature and pressure) as determined by 40 CFR 60 Appendix A Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip, 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).
  - iii. Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by dividing the volumetric flow rate (in units of standard temperature and pressure) as determined by 40 CFR 60 Appendix A Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip, less than the velocity, Vmax, as determined by the equation below, and less than 122 m/sec (400 ft/sec) are allowed.

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

Where:

$V_{max}$  = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

Ht = The net heating value as determined in paragraph (d) above.

[40 CFR 60.752(b)(2)(iii)(A), 40 CFR 60.18]

i. In accordance with the permittee's application, this permit to install (PTI) addresses the installation and operation of a control system utilizing a flare to comply with the requirements under NSPS Subpart WWW (see b)(2)e). The permittee should be advised that the installation and operation of alternative control systems as provided under 40 CFR 60.752(b)(2)(iii)(B) or routing collected gas to a treatment system as provided under 40 CFR 60.752(b)(2)(iii)(C) may constitute a "modification" as defined in OAC rule 3745-31-01. The permittee would be required to obtain a final PTI modification prior to performing any activity that would constitute a modification as defined above.

j. If the permittee seeks to demonstrate compliance with b)(2)c.iv. through the use of a collection system not conforming to the specifications provided in b)(2)o. through b)(2)q., the permittee shall provide information satisfactory to the Director to demonstrate that off-site migration is being controlled.

[40 CFR 60.755(a)(6)]

k. The permittee shall place each well or design component as specified in the approved design plan. Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of 5 years or more if active; or 2 years or more if closed or at final grade.

[40 CFR 60.755(b)]

l. For compliance with the surface methane operational standard as provided in c)(3), any reading of 500 parts per million (ppm) or more above background at any location shall be recorded as a monitored exceedance and the actions as specified in I through v of this section shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of c)(3).

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 re-monitored within 10 calendar days of detecting the exceedance.

- iii. If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in 'v' of this section shall be taken, and no further monitoring of that location is required until the action specified in 'v' 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 re-monitoring specified in 'ii' or 'iii' of this section shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring 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 re-monitoring shows an exceedance, the actions specified in 'iii' or 'v' 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. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.

[40 CFR 60.755(C)(4)]

- m. For compliance with the surface methane operational standard as provided in c)(3), the permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis. [Additional requirements under OAC rule 3745-27-19(E)(12) and OAC rule 3745-27-14(A) may apply.]

[40 CFR 60.755(C)(5)]

- 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.

[40 CFR 60.755(e)]

- o. 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 expandibility, 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 as determined in b)(2)p.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.

[40 CFR 60.759(a)(1) and (2)]

- p. The placement of gas collection devices as determined in b)(2).o.i shall control all gas producing areas, except as provided by 'i' and 'ii' as follows:
  - i. Any segregated area of non-degradable material may be excluded from collection if documented as provided under d)(12). 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:

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

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

$k$  = methane generation rate constant, in year <sup>-1</sup>

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

$M_i$  = mass of the degradable solid waste in the I th section, in megagram

$t_i$  = 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

$3.6 \times 10^{-9}$  = conversion factor

- iii. The values for  $k$ ,  $Lo$ , 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  $k$ ,  $Lo$  and  $C_{nmoc}$  are provided below:

$k^* = 0.05$  per year

$Lo = 170$  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.

[40 CFR 60.759(a)(3), 40 CFR 60.754(a)(1)]

- q. When the permittee constructs new gas collection devices, 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 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.
- ii. 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.
- iii. 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.

[40 CFR 60.759(b)]

- r. 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:
- construction /operation
  - solid waste handling
  - soil handling
  - wind erosion
- s. The permittee shall employ best available control measures for the above landfill fugitive dust operations/sources for the purpose of ensuring compliance with the above-mentioned applicable requirements. The permittee maintains that the inherent moisture content of the materials involved in fugitive dust operations/sources is at a level which will result in negligible fugitive dust emissions and is more than sufficient to comply with all applicable requirements. If at any time the moisture content is not sufficient to meet the above applicable requirements, the permittee shall employ best available control measures to ensure compliance.
- t. Best available 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.
- u. 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.
- v. 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).
- w. This 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).
- x. 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.
- y. The requirements established pursuant to this rule are less stringent or equivalent to the requirements of OAC rule 3745-31-05 (A)(3).
- z. 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.

c) Operational Restrictions

- (1) The permittee of an MSW landfill with a gas collection and control system used to comply with the provisions of b)(2)e. 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. These records shall be submitted with the annual reports as provided in e)(3).
  - b. Use of a geomembrane or synthetic cover. (The permittee shall develop acceptable pressure limits in the design plan.)
  - c. A decommissioned well. (A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Director.)

[40 CFR 60.753(b)]
- (2) The permittee shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. 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.
  - a. The nitrogen level shall be determined using 40 CFR, Part 60, Appendix A, Method 3C, unless an alternative test method is approved by the Administrator.
  - b. The oxygen level shall be determined by an oxygen meter using 40 CFR, Part 60, Appendix A, Method 3A, unless an alternative test method is approved by the Administrator, except that:
    - i. The span shall be set so that the regulatory limit is between 20 and 50 percent of the span.

- ii. A data recorder is not required.
- iii. Only two calibration gases are required, a zero and span, and ambient air may be used as the span.
- iv. A calibration error check is not required.
- v. The allowable sample bias, zero drift, and calibration drift are plus or minus 10 percent.

[40 CFR 60.753(C)]

- (3) 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. To determine if this level is exceeded, the permittee shall conduct surface testing on a quarterly basis around the perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The permittee may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

[40 CFR 60.753(d)]

- (4) The permittee shall operate the gas collection and control system such that all collected gases are vented to a control system designed and operated in compliance with b)(2)e. 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 1 hour.

[40 CFR 60.753(e)]

- (5) The permittee shall operate the control and/or treatment system at all times when the collected gas is routed to the system.

[40 CFR 60.753(f)]

- (6) If monitoring demonstrates that the operational requirements in c)(1) through c)(3) are not met, corrective action shall be taken as specified in d)(1), d)(2), b)(2).i., and/or b)(2)m. If corrective actions are taken as specified, the monitored exceedance is not a violation of the operational requirements.

[40 CFR 60.753(g)]

- (7) The permittee shall develop and implement a written startup, shutdown, and malfunction (SSM) plan according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site.

[40 CFR 63.1960]

- (8) There shall be no visible emissions from asbestos-containing waste materials (ACM) during on-site transportation, transfer, deposition, or compacting operations
- (9) 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.
- (10) 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.
- (11) 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 c)(11)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.
- (12) 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.
- (13) 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.
- (14) 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.

- (15) The permittee shall not accept more than 6,000 tons of waste per day for disposal at the facility. This total tonnage includes both solid waste and exempt waste, including, but not limited to, construction and demolition debris.

d) Monitoring and/or Recordkeeping Requirements

- (1) 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)(1). 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.
- 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 c)(2). 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 exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Director for approval.

[40 CFR 60.755(a)(3) and (5), 40 CFR 60.756(a)]

- (2) The permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals (or a site-specific established spacing) for each collection area on a quarterly

basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided as follows:

- a. 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.
- b. Surface emission monitoring shall be performed in accordance with section 4.3.1 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.
- c. The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of Appendix A of 40 CFR, Part 60, except that "methane" shall replace all references to VOC.
- d. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.
- e. To meet the performance evaluation requirements in section 3.1.3 of Method 21 of Appendix A of 40 CFR, Part 60, the instrument evaluation procedures of section 4.4 of Method 21 of Appendix A of 40 CFR, Part 60 shall be used.
- f. The calibration procedures provided in section 4.2 of Method 21 of Appendix a of 40 CFR, Part 60 shall be followed immediately before commencing a surface monitoring survey.

[40 CFR 60.755(C)(1),(2), and (3); 40 CFR 60.755(d)(1) through (4)]

- (3) The permittee shall 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.
  - b. A device that records flow to or bypass of the flare. The permittee shall either:
    - i. calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or
    - ii. 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.

[40 CFR 60.756(C)]

- (4) The permittee shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in this permit. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500

ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

[40 CFR 60.756(f)]

- (5) The permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report required pursuant to 40 CFR 60.757, 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 be also required by the OEPA, Division of Solid and Infectious Waste Management, and may satisfy this permit condition.

[40 CFR 60.758(a)]

- (6) The permittee shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed below as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal:
- The maximum expected gas generation flow rate as calculated.
  - The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined.
  - Where the permittee seeks to demonstrate compliance with b)(2)e through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emissions readings, heat content determinations, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

[40 CFR 60.758(b)(1) and (4)]

- (7) The permittee of a controlled landfill subject to the provisions of this subpart 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) 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.

[40 CFR 60.758(C)]

- (8) 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)(1) through d)(3).

[40 CFR 60.758(C)(2)]

- (9) The permittee shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under d)(3), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.
- [40 CFR 60.758(C)(4)]
- (10) The permittee shall keep 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.
- [40 CFR 60.758(d)]
- (11) 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)k. of this permit.
- [40 CFR 60.758(d)(1)]
- (12) The permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of 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.
- [40 CFR 60.758(d)(2)]
- (13) 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.
- [40 CFR 60.758(e)]
- (14) 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 'l' 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.

- (15) 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.
- (16) 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:

landfill fugitive dust operations/sources:	minimum inspection frequency:
construction /operation	twice daily (and not less than 4 hour apart) during operation
solid waste handling	twice daily (and not less than 4 hour apart) during operation
soil handling	twice daily (and not less than 4 hour apart) during operation
wind erosion	twice daily (and not less than 4 hour apart) during operation

- (17) 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 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.
- (18) The permittee shall maintain records of the following information:
- the date and reason any required inspection was not performed;
  - the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
  - the dates the control measure(s) was (were) implemented; and
  - on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in '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.

- (19) The permittee shall maintain daily records of the amount of waste accepted per day, in tons. The amount of waste accepted includes both solid waste and exempt waste, including, but not limited to, construction and demolition debris.

e) Reporting Requirements

- (1) Until a compliant collection and control system is installed, meeting the requirements of this permit and 40 CFR 60 Subpart WWW, the permittee shall submit an annual NMOC emission rate report to the Director (Ohio EPA Division of Air Pollution Control, district office or local air agency). The permittee shall recalculate the NMOC emission rate annually using the procedures specified in f)(4). The Director may request any additional information as may be deemed necessary to verify the reported NMOC emission rate. The permittee is exempted from the requirements of submitting the annual NMOC emission estimate report, following the installation of a collection and control system meeting the requirements of this permit and 40 CFR 60 Subpart WWW.

[40 CFR 60.757(b)]

- (2) 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). [Additional requirements under OAC rule 3745-27-11(E) may apply.]

[40 CFR 60.757(d)]

- (3) The permittee shall submit to the Director annual reports of the recorded information in e)(6)a. through e)(6)f. For flares, reportable exceedances are defined under d)(3). The report shall be submitted by January 31 and July 31 of each year and shall cover the previous six calendar months.
- a. Value and length of time for each exceedance of the applicable parameters monitored under d)(1).
  - b. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under d)(3).
  - c. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.
  - d. All periods when the collection system was not operating in excess of 5 days.
  - e. The location of each exceedance of the 500 ppm methane concentration as provided in c)(3) and the concentration recorded at each location for which an exceedance was recorded in the previous month.
  - f. The date of installation and the location of each well or collection system expansion added.

[40 CFR 63.1955(C), 40 CFR 60.757(f)]

- (4) 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, 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.

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

- (5) 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. modification date (no later than 30 days after such date);
  - b. actual start-up date of modification (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 EPA, Northwest District Office  
347 North Dunbridge Road  
Bowling Green, OH 43402

- (6) Any breakdown or malfunction of the landfill gas collection and control system resulting in the emission of raw landfill gas emissions to the atmosphere shall be reported to the Northwest District Office within one hour after the occurrence, or as soon reasonably possible, and immediate remedial measures shall be undertaken to correct the problem and prevent further emissions to the atmosphere.
- (7) 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.

- (8) 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.
- (9) 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.
- (10) The permittee shall notify the Northwest District Office of any load of asbestoscontaining 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 proved the opportunity to inspect.

- (11) The permittee shall submit deviation reports that identify any each day during which the amount of waste accepted exceeded the restriction specified in Section c)(15). The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

f) Testing Requirements

- (1) The permittee shall maintain the following information for the life of the control equipment (flare) as measured during the initial performance test or compliance demonstration:

- a. the maximum expected gas generation flow rate, in cubic meters/year as calculated based on the following:

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

$$Q_m = 2L_o \times R \times \{(e^{-kc}) - (e^{-kt})\}$$

Where:

$Q_m$  = maximum expected gas generation flow rate, cubic meters per year

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

$R$  = average annual acceptance rate, megagram per year

$k$  = methane generation rate constant, per year

$t$  = age of the landfill at equipment installation plus the time the owner or operator 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), years

$c$  = time since closure, years (for an active landfill  $c = 0$  and  $e^{-kc} = 1$ )

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

$$Q_m = \sum_{l=1}^n 2kL_oM_l \times (e^{-kt})$$

Where:

$Q_m$  = maximum expected gas generation flow rate, cubic meters per year

$k$  = methane generation rate constant, per year

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

$M_l$  = mass of solid waste in the  $l$  th section, in megagrams

$t_i$  = 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 above. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using either of the equations above 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. For the purposes of determining sufficient density of gas collectors for compliance with a collection system designed to handle the maximum expected landfill gas flow rate, the permittee shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Director, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

[40 CFR 60.755(a)(1) & (2)]

(2) The permittee shall calculate the NMOC emission rate using the equation(s) provided in 40 CFR 60.754. After the installation of a collection and control system in compliance with 40 CFR 60.755, the permittee shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in 40 CFR 60.752(b)(2)(v), using the following equation:

$$MNMOOC = 0.00189 (QLFG) CNMOOC$$

Where:

MNMOOC = mass emission rate of NMOC, megagrams per year

QLFG = flow rate of landfill gas, cubic meters per minute

CNMOOC = NMOC concentration, parts per million by volume as hexane

- a. The flow rate of landfill gas, QLFG, 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 this part.
- b. The average NMOC concentration, CNMOOC, 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 25C or Method 18 of appendix A of this part. If using Method 18 of appendix A of this part, 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 landfill owner or operator shall divide the NMOC

concentration from Method 25C of appendix A of this part by six to convert from CNMOC as carbon to CNMOC as hexane.

- c. The permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator.

[40 CFR 60.754(b)]

- (3) 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.

[40 CFR 60.75(C)]

- (4) As required for the report in e)(1), the permittee shall calculate the NMOC emission rate using either the equation provided in f)(1)a. or the equation provided in f)(1)b. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in f)(1)a, for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in f)(1)b, for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per megagram for Lo, and the facility's Tier 2 value, 584 parts per million by volume as hexane (or a more recently determined and accepted Tier II value, if applicable) for the Cnmoc. 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.

- a. The following equation shall be used if the actual year-to-year solid waste acceptance rate is known.

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

Where:

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

k = methane generation rate constant, in year<sup>(-1)</sup>

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

$M_i$  = mass of solid waste in the l th section, in megagrams

$t_i$  = age of the l th section, in years

$C_{nmoc}$  = concentration of NMOC, in parts per million by volume as hexane

$3.6 \times 10^{-9}$  = 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 for  $M_i$  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.

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

Where:

$M_{nmoc}$  = mass emission rate of NMOC, in megagrams per year

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

$R$  = average annual acceptance rate, in megagrams per year

$k$  = methane generation rate constant, in year<sup>(-1)</sup>

$t$  = age of landfill, in years

$C_{nmoc}$  = concentration of NMOC, in parts per million by volume as hexane

$c$  = time since closure, in years (For an active landfill,  $c = 0$  and  $e^{(-kc)} = 1$ .)

$3.6 \times 10^{-9}$  = conversion factor

The mass of nondegradable solid waste may be subtracted from the average annual acceptance rate when calculating a value for  $R$ , if documentation of the nature and amount of such wastes is maintained.

[40 CFR 60.754(a)(1)]

- (5) Compliance with the emissions limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation: 17.0 tons of fugitive PE/year and 10.1 tons of fugitive PM10/year

Applicable Compliance Method: This emission limitation was established by combining the uncontrolled emissions associated with the landfill fugitive dust operations/sources of: construction/operation, solid waste handling, soil handling, and wind erosion, and applying a 75% control efficiency for use of best available control measures (except wind erosion). The combined uncontrolled emissions were calculated using appropriate AP-42 emission factors [Section 11.9 (07/98) and 13.2.4 (01/95)] and associated maximum material throughout, surface areas, etc.

Therefore, provided compliance is shown with the requirements of this permit to apply best available control measures, compliance with the annual PE and PM10 limitations will be assumed.

- b. Emission Limitation: 58.0 lbs of CO/hour (flare)

Applicable Compliance Method: The hourly emission limitation reflects the emissions unit's potential to emit. Therefore, no record keeping, monitoring

and/or reporting are necessary to ensure compliance with this limitation. The potential to emit was determined by multiplying the maximum landfill gas collection rate of 5743 cfm, 0.50 cubic ft methane/cubic ft of landfill gas, 909.8 BTU/cubic ft of methane, 0.37 lbs of CO/1,000,000 BTU [AP-42 Table 13.5-1 (09/91)], and 60 minutes/hour.

- c. Emission Limitation: 5.86 lbs of NO<sub>x</sub>/hour (flare)

Applicable Compliance Method: The hourly emission limitation reflects the emissions unit's potential to emit. Therefore, no record keeping, monitoring and/or reporting requirements are necessary to ensure compliance with this limitation. The potential to emit was determined by multiplying the maximum landfill gas collection rate of 5743 cfm, 0.50 cubic ft methane/cubic ft of landfill gas, 40 lbs of NO<sub>x</sub>/1,000,000 dscf methane [AP-42 Table 2.4-5 (11/980)], and 60 minutes/hour.

- d. Emission Limitation: 9.08 lbs of SO<sub>2</sub>/hour (flare)

Applicable Compliance Method: The hourly emission limitation reflects the emissions unit's potential to emit. Therefore, no record keeping, monitoring and/or reporting requirements are necessary to ensure compliance with this limitation. The potential to emit was determined by using AP-42, Section 2.4, equations 3, 4, & 7 Municipal Solid Waste Landfills [11/98] and the following:

- i. CH<sub>4</sub> gas generation rate of 4880 m<sup>3</sup>/hr
- ii. Sulfur concentration in the landfill gas = 290 ppm
- iii. 85% landfill gas collection efficiency

- e. Emission Limitation: 1.03 lbs of NMOC/hour (flare)

Applicable Compliance Method: The hourly emission limitation reflects the emissions unit's potential to emit. Therefore, no record keeping, monitoring and/or reporting requirements are necessary to ensure compliance with this limitation. The potential to emit was determined by applying a 98% control efficiency for the flare to the maximum hourly NMOC rate to the flare (51.5 lbs NMOC/hr)\*.

\*The maximum NMOC rate to the flare was determined by Landfill Gas Emission Model (LandGEM). The maximum NMOC rate will occur in the year 2017 and is based on the following:

- i.  $1.66 \times 10^6$  Mg refuse in place (2003)
- ii. annual waste acceptance rate of 1,040,000 Mg per year
- iii. maximum landfill capacity of  $1.410 \times 10^7$
- iv. 85% landfill gas collection efficiency

- f. Emission Limitation: 1.02 lb of HCl/hour (flare)

Applicable Compliance Method: The hourly emission limitation reflects the emissions unit's potential to emit. Therefore, no record keeping, monitoring and/or reporting requirements are necessary to ensure compliance with this limitation. The potential to emit was determined by using AP-42, Section 2.4, equations 3, 4, & 10 Municipal Solid Waste Landfills [11/98] and the following:

- i. CH<sub>4</sub> gas generation rate of 4880 m<sup>3</sup>/hr
- ii. Chloride ion concentration in the landfill gas = 41.99 ppmv
- iii. 85% landfill gas collection efficiency

- g. Emission Limitation: 2.49 lbs of PM<sub>10</sub>/hour (flare)

Applicable Compliance Method: The hourly emission limitation reflects the emissions unit's potential to emit. Therefore, no record keeping, monitoring and/or reporting requirements are necessary to ensure compliance with this limitation. The potential to emit was determined by multiplying the maximum landfill gas generation rate of 5743 cfm, 0.50 cubic ft methane/cubic ft of landfill gas, 17 lbs of PM/1,000,000 dscf methane [AP-42 Table 2.4-5 (11/980)], and 60 minutes/hour. [All PM is assumed to be PM<sub>10</sub>.]

- h. Emission Limitation: 44.2 tons of fugitive NMOC/year and 5237 tons of fugitive methane/year

Applicable Compliance Method: The annual emission limitations represent the maximum potential to emit determined by Landfill Gas Emission Model (LandGEM). Therefore, no record keeping, monitoring and/or reporting requirements are necessary to ensure compliance with these limitations. Maximum potential emissions will occur in the year 2017 and are based on the following:

- i.  $1.66 \times 10^6$  Mg refuse in place (2003)
- ii. annual waste acceptance rate of 1,040,000 Mg per year
- iii. maximum landfill capacity of  $1.410 \times 10^7$
- iv. 85% landfill gas collection efficiency

- i. Emission Limitations: 254.03 tons of CO/year (flare), 25.66 tons of NO<sub>x</sub>/year (flare), 39.76 tons of SO<sub>2</sub>/year (flare), 4.50 tons of NMOC/year (flare), 4.48 tons of HCl/year (flare) and 10.9 tons of PM<sub>10</sub>/year (flare)

Applicable Compliance Method: The annual emission limitations 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. The annual allowable emission limitations were developed by multiplying the hourly potential to emit of the emissions unit by a maximum operating schedule of 8,760 hours per year, and dividing by 2000 lbs per ton.

- j. Emission Limitation: Visible fugitive PE shall not exceed 20% opacity as a three-minute average [from operations not associated with asbestos-containing material (ACM)]

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, 2002, and the modifications listed in paragraphs (B)(3)(a) through (B)(3)(d) of OAC rule 3745-17-03.

- k. Emission Limitation: There shall be no visible emissions from asbestos-containing waste materials (ACM) during on-site transportation, transfer, deposition, or compacting operations.

Applicable Compliance Method: If required, compliance with the visible emission limitation listed above shall be determined in accordance with Test Method 22 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, 2002, and the modifications listed in paragraphs (B)(4)(a) and (B)(4)(c) of OAC rule 3745-17-03.

g) Miscellaneous Requirements

- (1) Compliance with the terms and conditions of this permit for this emissions unit which are established under authority of NSPS Subpart WWW shall also constitute compliance with MACT Subpart AAAA requirements.

Correspondingly, violations of the terms and conditions of this permit for this emissions unit which are established under authority of NSPS Subpart WWW shall also constitute violation of MACT Subpart AAAA requirements.

Compliance for 40 CFR 63 Subpart AAAA is determined in the same way it is determined for 40 CFR 60, Subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data, collected under the d)(3), are used to demonstrate compliance with the operating conditions for control systems. If a deviation occurs, the permittee has failed to meet the control device operating conditions described in this subpart and has deviated from the requirements of this subpart.

[40 CFR 63.1955(a)(1), 40 CFR 63.1960]

- (2) Deviation means any instance in which the permittee:
- a. Fails to meet any requirement or obligation established by Subpart AAAA, including, but not limited to, any emissions limitation (including any operating limit) or work practice standard;
  - b. Fails to meet any term or condition of this Title V operating permit; or

- c. Fails to meet any emission limitation, (including any operating limit), or work practice standard in Subpart AAAA during SSM, regardless of whether or not such failure is permitted by this subpart.

Deviation also includes when a SSM plan is not developed, implemented, or maintained on site.

[40 CFR 63.1965(C), 40 CFR 63.1990]

- (3) The permittee is not required to expand the system as required in d)(1).a during the first 180 days after gas collection system startup.

[40 CFR 60.755(a)(4)]

- (4) The permittee, in seeking to comply with b)(2)e., shall include the following information with the initial performance test report required under 40 CFR 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 rates 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.

[40 CFR 60.757(g)]

- (5) 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.
- (6) 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 nonasbestos-containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material; or
  - iii. Cover the asbestos-containing material with at least two feet of compacted nonasbestos-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 'a.ii' or 'a.iii' of this section:
- 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 'f' of this section.
  - 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 'a' or 'b' of this section.
- 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 'b.i' of this section 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"

(7) Authority to Enter

Pursuant to the authority of 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, and examine records or reports pertaining to any emissions of air contaminants and any monitoring equipment, emissions control equipment, or methods. No operator or agent of this landfill shall act in any manner to refuse, hinder, or thwart this legal right of entry.

(8) The permittee shall not construct, install or modify any emission unit(s) contained within this PTI (P0104115) until permit approval has been issued by the Ohio EPA (through the



final issuance of PTI #03-16456) authorizing the vertical expansion of the Noble Road Landfill.