



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center  
50 W. Town St., Suite 700  
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184  
www.epa.state.oh.us

MAILING ADDRESS:

P.O. Box 1049  
Columbus, OH 43216-1049

9/5/2008

Certified Mail

Scott Herman  
Mahoning Landfill, Inc.  
3510 Garfield Road  
New Springfield, OH 44443

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

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL  
Facility ID: 0250000840  
Permit Number: 02-20127  
Permit Type: Initial Installation  
County: Mahoning

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.

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

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

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

Sincerely,

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

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

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





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

**FINAL**

**Air Pollution Permit-to-Install  
for  
Mahoning Landfill, Inc.**

Facility ID: 0250000840  
Permit Number: 02-20127  
Permit Type: Initial Installation  
Issued: 9/5/2008  
Effective: 9/5/2008





State of Ohio Environmental Protection Agency  
 Division of Air Pollution Control

**Air Pollution Permit-to-Install**  
 for  
 Mahoning Landfill, Inc.

**Table of Contents**

Authorization ..... 1

A. Standard Terms and Conditions ..... 3

    1. Federally Enforceable Standard Terms and Conditions ..... 4

    2. Severability Clause ..... 4

    3. General Requirements ..... 4

    4. Monitoring and Related Record Keeping and Reporting Requirements ..... 5

    5. Scheduled Maintenance/Malfunction Reporting ..... 6

    6. Compliance Requirements ..... 6

    7. Best Available Technology ..... 7

    8. Air Pollution Nuisance ..... 7

    9. Reporting Requirements ..... 7

    10. Applicability ..... 8

    11. Construction of New Sources(s) and Authorization to Install ..... 8

    12. Permit-To-Operate Application ..... 9

    13. Construction Compliance Certification ..... 9

    14. Public Disclosure ..... 9

    15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission  
         Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations ..... 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. F001, Roadways and parking areas ..... 14

    2. F002, Landfill operations ..... 19

    3. F003, Soil stockpiles ..... 32





State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** 02-20127  
**Facility ID:** 0250000840  
**Effective Date:** 9/5/2008

# Authorization

Facility ID: 0250000840  
Facility Description: Sanitary Landfill  
Application Number(s): A0002822  
Permit Number: 02-20127  
Permit Description: Vertical landfill expansion and increase in the acceptable maximum daily waste receipts.  
Permit Type: Initial Installation  
Permit Fee: \$1,200.00  
Issue Date: 9/5/2008  
Effective Date: 9/5/2008

This document constitutes issuance to:

Mahoning Landfill, Inc.  
3510 Garfield Road  
New Springfield, OH 44443

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, Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 43087  
(330)425-9171

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski  
Director



State of Ohio Environmental Protection Agency  
 Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** 02-20127  
**Facility ID:** 0250000840  
**Effective Date:** 9/5/2008

## Authorization (continued)

Permit Number: 02-20127

Permit Description: Vertical landfill expansion and increase in the acceptable maximum daily waste receipts.

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

<b>Emissions Unit ID:</b>	<b>F001</b>
Company Equipment ID:	Roadways and parking areas
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F002</b>
Company Equipment ID:	Landfill operations
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F003</b>
Company Equipment ID:	Soil stockpiles
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** 02-20127  
**Facility ID:** 0250000840  
**Effective Date:** 9/5/2008

## **A. Standard Terms and Conditions**



## **1. Federally Enforceable Standard Terms and Conditions**

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

## **2. Severability Clause**

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

## **3. General Requirements**

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



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

#### **4. Monitoring and Related Record Keeping and Reporting Requirements**

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - (1) The date, place (as defined in the permit), and time of sampling or measurements.
  - (2) The date(s) analyses were performed.
  - (3) The company or entity that performed the analyses.
  - (4) The analytical techniques or methods used.
  - (5) The results of such analyses.
  - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northeast 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, Northeast 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, Northeast 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, Northeast 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, Northeast 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, Northeast 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, Northeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

## 10. Applicability

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

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

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



- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the PER covering the last period the emissions unit operated.

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

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

**12. Permit-To-Operate Application**

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

**13. Construction Compliance Certification**

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

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

**14. Public Disclosure**

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



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

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

**16. Fees**

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

**17. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Ohio EPA DAPC, Northeast District Office must be notified in writing of any transfer of this permit.

**18. Risk Management Plans**

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

**19. Title IV Provisions**

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



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** 02-20127  
**Facility ID:** 0250000840  
**Effective Date:** 9/5/2008

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



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** 02-20127  
**Facility ID:** 0250000840  
**Effective Date:** 9/5/2008

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
  - a) None.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** 02-20127  
**Facility ID:** 0250000840  
**Effective Date:** 9/5/2008

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



**1. F001, Roadways and parking areas**

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

**Facility roadways and parking areas**

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
<b>Unpaved roadways and parking areas</b>		
a.	OAC rule 3745-31-05(A)(3)	125.0 tons/year of fugitive particulate emissions (PE)  no visible PE except for three (3) minutes during any 60-minute period  best available control measures that are sufficient to minimize or eliminate visible PE of fugitive dust [See b)(2)a. through b)(2)f.].
<b>Paved roadways and parking areas</b>		
b.	OAC rule 3745-31-05(A)(3)	21.7 tons/year of fugitive particulate emissions (PE)  no visible PE except for one (1) minute during any 60-minute period  best available control measures that are sufficient to minimize or eliminate visible PE of fugitive dust [See b)(2)a. through b)(2)f.].
<b>Unpaved and paved roadways and parking areas</b>		
c.	OAC rule 3745-17-07(B)	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).
d.	OAC rule 3745-17-08(B)	The permittee is not located within an "Appendix A" area as identified in OAC



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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).

(2) Additional Terms and Conditions

- a. The permittee shall employ best available control measures on all paved and unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements.

In accordance with the permittee's application, the permittee has committed to treat the paved and unpaved roadways and parking areas with water via a spray truck at sufficient treatment frequencies and to maintain and enforce speed limits sufficient to ensure compliance with the visible emissions limitations of this permit.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- b. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for paved or unpaved roadways and parking areas that are covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- c. The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
- d. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
- e. Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface resulting from the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.



- f. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology (BAT) requirements of OAC rule 3745-31-05.
- c) Operational Restrictions
  - (1) The permittee shall post speed limit signs identifying the maximum on-site speed limit on facility roadways.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) Except as otherwise provided in this section, the permittee shall perform inspections of the paved and unpaved roadways and parking areas once per day of operation.
  - (2) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
  - (3) The permittee may, upon receipt of written approval from the Northeast District Office of Ohio EPA, modify the above-mentioned inspection frequencies, if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
  - (4) The permittee shall maintain records of the following information:
    - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
    - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
    - c. the dates the control measures were implemented; and
    - d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in d)(4)d. shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.
- e) Reporting Requirements
  - (1) 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.
- (2) The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.
- f) Testing Requirements
- (1) Compliance with the emission limitations specified in 1.b) shall be determined in accordance with the following methods:
- a. Emission Limitation:  
  
There shall be no visible particulate emissions of fugitive dust from any unpaved roadway or parking area surface except for a time not to exceed three (3) minutes during any 60-minute observation period.  
  
Applicable Compliance Method:  
  
Compliance with the emission limitation for unpaved roadways and parking areas 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"), and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.
  - b. Emission Limitation:  
  
There shall be no visible particulate emissions of fugitive dust from any paved roadway or parking area surface except for a time not to exceed one (1) minute during any 60-minute observation period.  
  
Applicable Compliance Method:  
  
Compliance with the emission limitation for paved roadways and parking areas 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"), and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.
  - c. Emission Limitation:  
  
125.0 tons/year of fugitive PE from unpaved roadways and parking areas  
  
Applicable Compliance Method:  
  
Compliance with fugitive PE limitation shall be determined by using the emission factor equation in Section 13.2.2, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 11/06) for unpaved roadways. These emission limits are based on 168,357 vehicle miles traveled per year for



normal traffic, 61,320 vehicle miles per year for construction traffic, a 75 percent (%) control efficiency for PE for normal traffic, and a 50 percent (%) control efficiency for PE for construction traffic.

d. Emission Limitation:

21.7 tons/year of fugitive PE from paved roadways and parking areas

Applicable Compliance Method:

Compliance with fugitive PE limitations shall be determined by using the emission factor equations in Section 13.2.1, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 11/06) for paved roadways. These emission limits are based on 63,117 vehicle miles traveled per year and a 80 percent (%) control efficiency for PE.

g) Miscellaneous Requirements

(1) None.



**2. F002, Landfill operations**

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

MSW Landfill Operations - waste disposal activities including dumping, spreading, compacting, covering, and gas generation

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions of fugitive dust shall not exceed 4.4 tons per year.  Visible particulate emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.  Use of fugitive dust control measures at sufficient frequencies to comply with the above emission limitations.
b.	40 CFR Part 60, Subpart WWW OAC Chapter 3745-76	The requirements of these applicable rules are equivalent to the requirements established pursuant to OAC rule 3745-31-05(A)(3).
c.	40 CFR Part 61, Subpart M OAC Chapter 3745-20	This landfill shall not accept regulated asbestos-containing materials (RACM).  The requirements of these applicable rules are equivalent to the requirements established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-07(B)	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).
e.	OAC rule 3745-17-08(B)	The permittee is not located within an "Appendix A" area as identified in OAC



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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).

(2) Additional Terms and Conditions

- a. When the landfill is closed, the permittee is no longer subject to the requirement to maintain an operating permit under part 70 or 71 of this chapter for the landfill if the landfill is not otherwise subject to the requirements of either Part 70 or 71, provided the 5-year projected NMOC emission rate will not exceed 50 Mg/yr. [40 CFR 60.752(d)]
- b. For purposes of submitting a timely application for, and obtaining an operating permit under Title V of the Act, the permittee is subject to the requirements of §§70.5(a)(1)(i) or 71.5(a)(1)(i) of this chapter. [40 CFR 60.752(b)(1) and 60.752(c)]
- c. If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the permittee shall request the Ohio EPA Northeast District Office to reopen the Title V permit for review, or determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the procedures provided in this permit. [40 CFR 60.752(c)]
- d. The facility shall not accept for disposal any RACM as defined in the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Asbestos, 40 CFR Part 61, Subpart M, Section 141 and OAC rule 3745-20, or any subsequent revisions to either rule. RACM is defined to include:
  - i. friable asbestos material;
  - ii. Category I non-friable asbestos-containing material that has become friable;
  - iii. Category I non-friable asbestos-containing material that will be or has been subjected to sanding, grinding, cutting, or abrading; or
  - iv. Category II non-friable asbestos-containing material that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.
- e. In addition, this facility shall not accept any Category II non-friable asbestos-containing material. For asbestos materials, the permittee shall be limited to accepting Category I non-friable asbestos-containing material that has not or will not be subjected to sanding, grinding, cutting, or abrading. The permittee shall ensure that any Category I non-friable asbestos-containing material which has not or will not be subjected to sanding, grinding, cutting, or abrading shall not become friable during processing at the landfill. Any asbestos-containing



material that is friable or becomes friable is subject to the asbestos NESHAP regulation. If any asbestos material arrives at the landfill from an unregulated residence and meets the description of regulated asbestos-containing material as described in b)(2)d.i. through b)(2)d.iv., the landfill shall:

- i. cause or permit no visible emissions to the outside air from the asbestos-containing waste materials during on-site transportation, transfer, deposition or compacting operations;
  - ii. assure that deposition and burial operations 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;
  - iii. cover the asbestos-containing waste material with at least 12 inches of non-asbestos-containing material, as soon as practicable after deposition, but no later than at the end of the operating day; and
  - iv. assure that during the unloading, deposition, burial and initial compaction of asbestos-containing waste materials, the disposal site is restricted adequately to deter unauthorized entry of the general public and any unauthorized personnel to within one hundred feet of the operations. [40 CFR 61.154, Subpart M] & [OAC rule 3745-20-06]
- f. There shall be no open burning, in violation of OAC Chapter 3745-19, at this facility. [OAC Chapter 3745-19]
- g. Pursuant to the authority in ORC section 3704.03(L), any representative of the director may, upon presentation of proper identification, enter at any reasonable time upon any portion of the property where this landfill is located, including any improvements thereon, to make inspections; take samples; conduct tests; examine records or reports pertaining to any emissions of air contaminants; and inspect monitoring equipment, emissions control equipment, and/or methods of operation and gas sampling. No operator or agent of this landfill shall act in any manner to refuse, hinder, or thwart this legal right of entry. [ORC section 3704.03(L)]
- h. If this landfill is permanently closed, the permittee shall comply with all of the applicable provisions of OAC rule 3745-20-07. [OAC rule 3745-20-07(D)]
- c) Operational Restrictions
- (1) The permittee shall ensure that solid wastes are deposited, spread, and compacted in such a manner as to minimize or prevent visible emissions of fugitive dust. The permittee shall require all truckloads of solid waste to be unloaded in a manner that will minimize the drop height of the solid wastes. Any dusty materials or wastes likely to become airborne shall be watered as necessary prior to or during dumping operations in order to minimize or eliminate visible emissions of fugitive dust. Watering shall be conducted in such a manner as to avoid the pooling of liquids and runoff. No dusty material shall be dumped during periods of high wind speed, unless the material has been treated to prevent fugitive dust emissions from becoming airborne.



- (2) The permittee shall employ best available control measures for the above-identified landfill fugitive dust operations/sources for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permit application, the permittee maintains that the inherent moisture content of the materials involved in fugitive dust operations/sources is at a level which 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.
  - (3) The above-identified control measure(s) shall be implemented 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 measure(s) shall continue during the operation of the fugitive dust operation/sources until further observation confirms that use of the control measure(s) is unnecessary.
  - (4) 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. [OAC rules 3745-17-08 and 3745-31-05(A)(3) (BAT)]
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall keep for at least five (5) years up-to-date, readily accessible, on-site records of a design capacity report, 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 paper copy or electronic formats are acceptable. [40 CFR 60.758(a)]
  - (2) The permittee shall maintain records of the NMOC emission rate for the landfill using the procedures specified in 40 CFR 60.754(a)(1) and these terms.
  - (3) The permittee shall keep readily accessible, on-site records of any conversion of design capacity from volume to mass or mass to volume, the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within four (4) hours. Either paper copy or electronic formats are acceptable. [40 CFR 60.758(f)]
  - (4) The permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing and/or non-degradable wastes, excluded from collection as provided in 40 CFR 60.759(a)(3)(i), as well as any nonproductive areas excluded from collection as provided in 40 CFR 60.759(a)(3)(ii). [40 CFR 60.758(d)(2)]
  - (5) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust resulting from any landfill operations (such as wastes unloading, covering, excavation, and wind erosion). The presence or absence of any visible emissions of fugitive dust shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
    - a. the color of the emissions;



- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

[OAC rules 3745-17-07(B) and 3745-31-05(A)(3)]

- (6) The permittee shall maintain a daily operations log which records/documents any watering activity employed to minimize or eliminate visible emissions of fugitive dust for each waste dumping/placement area; the record shall include the time, the location, and the amount of water employed, in gallons. [OAC rule 3745-31-05(A)(3)]

e) Reporting Requirements

- (1) The permittee shall submit an NMOC emission rate (Tier 1) report to the Director annually. The NMOC emission rate shall be calculated using the formula and procedures provided in 40 CFR 60.754(a) or (b), as applicable. The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual emissions. The Director may request such additional information as may be necessary to verify the reported NMOC emission rate. The annual NMOC emissions report shall be submitted to the Director (the Ohio EPA Northeast District Office) by June 6th of each year and shall cover the previous calendar year, until a collection and control system is installed in compliance with 60.752(b)(2) and operating in accordance with 40 CFR 60.753 and 60.755. 40 CFR 60.757(B)(1) allows for 5 year summary reports, as long as the NMOC emission rate is under 50 Mg/y for all 5 years (see e)(4)d. [40 CFR 60.752(b)(1), 60.755, & 60.757(b)]
- (2) The permittee shall submit a collection and control system design plan and an application to modify the permit to install to implement the plan to the Director within one year (except as specified in e)(4)] of the first report in which the emission rate equals or exceeds 50 megagrams per year, except as follows:
  - a. If the permittee elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis, and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within 180 days of the first calculated exceedance of 50 megagrams per year.
  - b. If the permittee elects to recalculate the NMOC emission rate after determining a Tier 3 site-specific methane generation rate constant (k), and the resulting NMOC emission rate is less than 50 Mg/yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of 40 CFR 60.754(a)(4) and the resulting site-specific



methane generation rate constant (k) shall be submitted to the Director within one year of the first calculated emission rate exceeding 50 megagrams per year. [40 CFR 60.757(c)]

- (3) If the annual report demonstrates that calculated NMOC emission rate is equal to or greater than 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, the permittee shall comply with the following:
- a. Within one year, the permittee shall submit a collection and control system design plan that complies with 40 CFR 60.752 and is prepared by a professional engineer, and an amended permit to install application to the Director; and
  - b. Within 30 months, the permittee shall install and operate a collection and control system that captures the gas generated within the landfill as required by 40 CFR Part 60, Subpart WWW. [40 CFR 60.752(b)(2)]
  - c. If the permittee seeks to install a collection system that does not meet the specifications in 40 CFR 60.759, the permittee shall provide to the Director a description of the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Director may specify additional appropriate monitoring procedures. [40 CFR 60.756(e)]

The permittee shall submit a permit to install (PTI) application and be issued a new PTI, before an expansion or an increase in the waste material received increases the calculated NMOC emissions to equal or exceed 50 megagrams/year. If the amended design capacity report is not submitted with the PTI application, the permittee shall submit an amended design capacity report to the director within 90 days of the increase in the maximum design capacity of the landfill. [40 CFR 60.752(a) & 60.757(a)]

- (4) If the estimated NMOC emission rate as reported in the annual report to the Director is less than 50 megagrams per year in each of the next five (5) consecutive years, the permittee may elect to submit an estimate of the NMOC emission rate for the next five-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the five (5) years for which an NMOC emission rate is estimated. This estimate shall be revised at least once every five (5) years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the five-year estimate, a revised five-year estimate shall be submitted to the Director. The revised estimate shall cover the five-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate. The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the five-year emissions. [40 CFR 60.752(b)(1), 60.755, & 60.757(b)]
- (5) The permittee shall submit an amended design capacity report to the Director providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in 40 CFR 60.758(f). The amended design capacity report shall contain the following information:



- a. A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by Ohio EPA’s Division of Solid and Infectious Waste Management.
  - b. The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by Ohio EPA’s Division of Solid and Infectious Waste Management, a copy of the portion of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with the relevant parameters as part of the report. The Director may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill. [40 CFR 60.757(a)(2) and (a)(3) and OAC Chapter 3745-31]
- (6) 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: [40 CFR 60.7]
- a. construction date (no later than 30 days after such date);
  - b. actual start-up date (within 15 days after such date); and
  - c. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency

DAPC - Permit Management Unit

Lazarus Government Center

P.O. Box 1049

Columbus, Ohio 43216-1049

and

Ohio EPA, Northeast District Office

2110 East Aurora Road

Twinsburg, Ohio 44087

- (7) The permittee shall submit a closure report to the Director within 30 days of cessation of waste acceptance. The Director may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Director, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4). If the landfill closes, and was not required to install a gas control and collection system terms of this permit specific to 40



CFR Part 60, Subpart WWW are no longer applicable. [40 CFR 60.752(b)(ii)(B), 40 CFR 60.757(d) and OAC Chapter 3745-31]

- (8) The permittee shall submit quarterly written reports that (a) identify all days during which any visible emissions of fugitive dust from materials were observed from operations involving this emissions unit (such as wastes unloading, covering, excavation and wind erosion) and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the director (the Ohio EPA Northeast District Office) by January 31, April 30, July 31 and October 31 and shall cover the previous calendar quarters. [OAC rules 3745-17-07(B) and 3745-31-05(A)(3)]
- (9) The permittee shall maintain records of the total volume of material received each day. These records shall be maintained for a period of not less than three (3) years, and the records shall be available for review by the director or his representative during normal business hours. [40 CFR Part 60, Subpart WWW] & [OAC rule 3745-31-05]

f) Testing Requirements

- (1) The permittee shall calculate Tier 2 and/or Tier 3 NMOC emission rates for the landfill using the procedures specified in 40 CFR 60.754. [40 CFR 60.752(b)]
- (2) The NMOC emission rate shall be calculated using either of the following equations specified below. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in 40 CFR 60.754(a)(1)(i), for part of the life of the landfill. The default values to be used in both equations are 0.05 per year for "k", unless a site-specific methane generation rate constant is determined as specified in a Tier 3 determination; 170 cubic meters per megagram for "L<sub>0</sub>"; and 4,000 ppm by volume as hexane for "C<sub>NMOC</sub>", unless samples are collected and the actual NMOC concentration is determined, as specified in a Tier 2 determination.
  - a. The following equation shall be used if the actual year-to-year solid waste acceptance rate is known:

$$M_{NMOC} = \sum_{i=1}^n 2kL_0 M_i (e^{-kt_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

M<sub>NMOC</sub> = Total NMOC emission rate from the landfill, megagrams per year;

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

L<sub>0</sub> = methane generation potential, cubic meters per megagram solid waste;

M<sub>i</sub> = mass of solid waste in the i<sup>th</sup> section, megagrams;

t<sub>i</sub> = age of the i<sup>th</sup> section, years;

C<sub>NMOC</sub> = concentration of NMOC, parts per million by volume as hexane;



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

n = number of sections.

The mass of non-degradable 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

a  
c  
c

$$M_{NMOC} = 2L_0R(e^{-kc} - e^{-kt})(C_{NMOC})(3.6 \times 10^{-9})$$

p  
t

ance rate is unknown:

where:

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

$L_0$  = methane generation potential, cubic meters per megagram solid waste;

R = average annual acceptance rate, megagrams per year;

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

t = age of landfill, years;

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

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

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

The mass of non-degradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value of R, if documentation of the nature and amount of such wastes is maintained. [40 CFR 60.754(a)(1)]

- (3) The calculated NMOC mass emission rate shall be compared to the standard of 50 megagrams per year. If the calculated NMOC emission rate is calculated to be less than 50 megagrams per year, the permittee shall submit an annual or 5-year estimate of the NMOC emission rate, and shall recalculate the NMOC mass emission rate annually and submit the report to the director.

If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, within one year, the permittee shall either:

- a. submit a collection and control system design plan, prepared by a professional engineer, and shall install it in compliance with 40 CFR 60.752(b)(2); or



- b. determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in a Tier 2 determination. [40 CFR 60.754(a)(2)]
- (4) A Tier 2 NMOC concentration shall be determined using the following sampling procedure:
- a. There shall be at least two sample probes per hectare of landfill surface that has retained waste for at least two (2) years. If the landfill is larger than 25 hectares in area, only 50 sample probes are required. The sample probes should be located to avoid known areas of non-degradable solid waste.
  - b. One sample of landfill gas from each probe shall be collected and analyzed to determine the NMOC concentration using Method 25 or 25C of Appendix A of 40 CFR Part 60. Method 18 of Appendix A of 40 CFR Part 60 may be used to analyze the samples collected by the Method 25 or 25C sampling procedure.
  - c. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter, unless evidence can be provided to substantiate the accuracy of smaller volumes. The compositing shall be terminated before the cylinder approaches ambient pressure where measurement accuracy diminishes.
  - d. If using Method 18, all compounds in the sample must be identified, and, at a minimum, the sample must be tested for those compounds published in the most recent Compilation of Air Pollutant Emission Factors (AP-42), minus carbon monoxide, hydrogen sulfide, and mercury. At a minimum, the instrument must be calibrated for each of the compounds on the list. The concentration of each Method 18 compound shall be converted to  $C_{\text{NMOC}}$  as hexane by multiplying it by the ratio of its carbon atoms divided by six.
  - e. The NMOC concentration determined from Method 25 or 25C of Appendix A of 40 CR Part 60 shall be divided by six, to convert from  $C_{\text{NMOC}}$  as carbon to  $C_{\text{NMOC}}$  as hexane.
  - f. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes, provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe before the gas moving or condensate removal equipment. For these systems, a minimum of three samples must be collected from the header pipe.
  - g. If more than the required number of samples are taken, all samples must be used in the analysis.
  - h. The NMOC mass emission rate shall be recalculated using the average NMOC concentration from the collected samples instead of the default value.



- i. If the resulting NMOC mass emission rate, recalculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, the permittee shall either:
    - i. comply with 40 CFR 60.752(b)(2) and within one year submit a collection and control system design plan and application to modify the permit to install, and within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, install the system; or
    - ii. perform a Tier 3 determination to determine the site-specific methane generation rate constant,  $k$ , and recalculate the NMOC emission rate using the site-specific NMOC concentration from Tier 2 and site-specific methane generation rate constant,  $k$ , from Tier 3.
  - j. If the resulting mass emission rate, recalculated using the site-specific NMOC concentration is less than 50 megagrams per year, the permittee shall submit annual or five-year reports for the estimated NMOC emissions, recalculated using the site-specific NMOC concentration. The site-specific NMOC concentration shall be retested, as above, every five (5) years. [40 CFR 60.754(a)(3)]
- (5) A Tier 3 determination of the site-specific methane generation rate constant,  $k$ , shall be determined, using the procedures provided in Method 2E of Appendix A of 40 CFR Part 60. The NMOC mass emission rate shall be estimated using the equations from 40 CFR 60.754(a)(1), as included in this permit, where a site-specific methane generation rate constant  $k$  and the site-specific NMOC concentration from Tier 2, instead of the default values provided with the calculation in the rule. The resulting NMOC mass emission rate shall be compared to the standard of 50 megagrams per year.
- a. If the resulting NMOC mass emission rate, calculated using the site-specific methane generation rate constant from Tier 3 and the site-specific concentration of NMOC from Tier 2, is equal to or greater than 50 megagrams per year, the permittee shall comply with 40 CFR 60.752(b)(2) and submit, within one year submit a collection and control system design plan and application to modify the permit to install, and within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, install the system; or
  - b. If the resulting NMOC mass emission rate, calculated using the site-specific methane generation rate constant from Tier 3 and the site-specific concentration of NMOC from Tier 2, is less than 50 megagrams per year, the permittee shall submit either annual reports or 5-year submission as required by 40 CFR 60.757(b)(1)(ii) for the estimated NMOC emissions, recalculated each year using the site-specific methane generation rate constant  $k$  and the site-specific NMOC concentration from Tier 2, and submitted as provided in 40 CFR 60.757(b)(1).
  - c. The site-specific NMOC concentration shall be retested, as above, every five (5) years, to be used in the NMOC emission estimate calculations. However, the calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations. [40 CFR 60.754(a)(4)]



- (6) Other methods to determine the NMOC concentration or site-specific methane generation rate constant k, may be used as an alternative to the methods required in 40 CFR 754(a)(3) or (4), only if the method has been approved by the Administrator of the U.S. Environmental Protection Agency. [40 CFR 60.754(a)(5)]
- (7) 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 60.754(c)]
- (8) Compliance with the emission limitations specified in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions of fugitive dust (material transfer, aggregate handling, load-in/load-out operations and wind erosion) from this emissions unit shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be determined by visible emission evaluations performed in accordance with USEPA Reference Method 9 as set forth in "Appendix A on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraph (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03(B)(3). [OAC rule 3745-17-07(B)]

b. Emission Limitation:

Particulate emissions of fugitive dust shall not exceed 4.4 tons per year from daily cover material handling, waste dumping, spreading, grading, and compacting.

Applicable Compliance Method:

The potential emission rate for cover material handling is calculated using the following equation from AP-42, Chapter 13.2.4.3 (11/06):

$$E1 = [(0.74) * (0.0032) * (U/5)^{1.3} / (M/2)^{1.4}] \text{ lb/ton} * 456,250 \text{ tons/yr} * \text{ton}/2,000 \text{ lbs} * (1 - CE)$$

where:

U = mean wind speed, 9.4 for Youngstown

M = moisture content of the soil, assume 12%

456,250 tons/yr = cover soil material handled annually, estimated as half the annual waste receipt from application

CE = fractional control efficiency for moist material (0.75)



The potential emission rate for waste dumping is calculated using the following equation from AP-42, Chapter 13.2.4.3 (11/06):

$$E_2 = [(0.74) * (0.0032) * (U/5)^{1.3} / (M/2)^{1.4}] \text{ lb/ton} * 912,500 \text{ tons/yr} * \text{ton}/2,000 \text{ lbs} * (1 - CE)$$

where:

U = mean wind speed, 9.4 for Youngstown

M = moisture content of the waste, assume 20%

912,500 tons/yr = annual waste receipt from application

CE = fractional control efficiency for moist material (0.75)

The potential emission rate for spreading, grading, and compacting is calculated using the following equation from AP-42, Table 11.9-1 (7/98) (this equation shall be applied once for cover soil material and once for waste material):

$$E = [5.7 * (s)^{1.2}] / M^{1.3} * 8,760 \text{ hrs/yr} * \text{ton}/2,000 \text{ lbs} * (1 - CE)$$

where:

s = silt content of cover material (9%),

silt content of waste material (5%)

M = moisture content of cover material (12%),

moisture content of waste material (20%)

CE = fractional control efficiency for moist cover and waste material (0.75)

g) Miscellaneous Requirements

(8) None.



**3. F003, Soil stockpiles**

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

Facility storage piles - material load in/out and wind erosion

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	There shall be no visible particulate emissions of fugitive dust from any storage pile except for a time not to exceed 1 minute during any 60-minute observation period.  Particulate emissions shall not exceed 4.0 tons per year from wind erosion and load-in and load-out operations.  The permittee shall employ best available control measures that are sufficient to minimize or eliminate visible PE of fugitive dust [See b)(2)a. through b)(2)e.]
b.	OAC rule 3745-17-07(B)	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).
c.	OAC rule 3745-17-08(B)	The permittee 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).



(2) Additional Terms and Conditions

- a. All of the storage piles at this facility are covered by this permit and are subject to the requirements of OAC rule 3745-31-05.
- b. The permittee shall employ best available control measures on all load-in and load-out operations associated with the storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's application, the permittee has committed to process aggregate material with inherently high moisture content and to minimize drop height distance from front-end loaders to ensure compliance.

The operator shall avoid dragging any front-end loader bucket along the ground. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- c. The above-mentioned control measure(s) shall be employed for each load-in and load-out operation of each storage pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during any such operation until further observation confirms that use of the measure(s) is unnecessary.
- d. The permittee shall employ best available control measures for wind erosion from the surfaces of all storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the application, the permittee has committed to process aggregate material with inherently high moisture content to ensure compliance. If at any time the moisture content is not sufficient to meet the above emission limitation for wind erosion from the surfaces of all storage piles, the permittee shall employ fugitive dust control measures to ensure compliance. Fugitive dust control measures can include, but are not limited to, the use of water, the use of other dust suppressant materials, or the use of non dust producing approved cover materials. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- e. The above-mentioned control measure(s) shall be employed for wind erosion from each pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measure(s) shall not be necessary for a storage pile that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.
- f. 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.



- c) Operational Restrictions
  - (1) None.
  
- d) Monitoring and/or Recordkeeping Requirements
  - (1) Except as otherwise provided in this section, the permittee shall perform inspections of each load-in operation at each storage pile at this facility once per day of operation.
  - (2) Except as otherwise provided in this section, the permittee shall perform inspections of each load-out operation at each storage pile at this facility once per day of operation.
  - (3) Except as otherwise provided in this section, the permittee shall perform inspections of the wind erosion from pile surfaces associated with each storage pile at this facility once per day of operation.
  - (4) No inspection shall be necessary for wind erosion from the surface of a storage pile when the pile is covered with snow and/or ice and for any storage pile activity if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
  - (5) The purpose of the inspections is to ensure continued compliance for load-in and load-out of a storage pile and for wind erosion from the surface of a storage pile and determine the need for implementing additional control measures. The inspections shall be performed during representative, normal storage pile operating conditions.
  - (6) The permittee shall maintain records of the following information:
    - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
    - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
    - c. the dates the control measure(s) were implemented; and
    - d. on a calendar quarter basis, the total number of days the control measure(s) were implemented and, for wind erosion from pile surfaces, the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in e)(6)d. shall be kept separately for (i) the load-in operations, (ii) the load-out operations, and (iii) the pile surfaces (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

- e) Reporting Requirements
  - (1) The permittee shall submit deviation (exceedance) 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.
- (2) The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

f) Testing Requirements

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

a. Emission Limitation:

There shall be no visible particulate emissions of fugitive dust from any storage pile except for a time not to exceed 1 minute during any 60-minute observation period.

Applicable Compliance Method:

Compliance with the visible emission limitation for the wind erosion and load-in and load-out operations from the storage piles identified 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").

b. Emission Limitation:

Particulate emissions shall not exceed 4.0 tons per year from wind erosion and load-in and load-out operations.

Applicable Compliance Method:

The permittee shall demonstrate compliance by summing the maximum potential emissions from wind erosion and material load in/out from soil storage piles.

The potential emission rate for wind erosion is calculated as determined by the method from U.S. EPA's Control of Open Fugitive Dust Sources, Equation 4-9 (September 1988), as follows:

$$[1.7 * (s/1.5) * (365 - p)/235 * (f/15)] \text{ lb/acre/day} * 5 \text{ acres} * 365 \text{ days/yr} * \text{ton}/2,000 \text{ lbs} * (1 - CE)$$

where:

s = the silt content (%) of the cover material (assume 9%)

p = number of days with at least 0.01 inch of precipitation per year, 150 days (Youngstown)



f = percent of time wind is at least 12 mph, 27.5% (Youngstown)

CE = fractional control efficiency for moist material (0.75)

The potential emission rate for waste handling is calculated as determined from AP-42, Chapter 13.2.4.3 (11/06), as follows:

$$E = [(0.74) * (0.0032) * (U/5)^{1.3} / (M/2)^{1.4}] \text{ lb/ton} * 456,250 \text{ tons/yr} * \text{ton}/2,000 \text{ lb} * 2 * (1 - CE)$$

where:

U = mean wind speed, 9.4 for Youngstown

M = moisture content of the soil, assume 12%

456,250 = cover soil material handled annually, estimated as half the annual waste receipt from application

2 = accounts for load-in and load-out

CE = fractional control efficiency for moist material (0.75)

g) Miscellaneous Requirements

- (1) None.