



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
122 S. Front Street  
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049  
Columbus, OH 43216-1049

**RE: FINAL PERMIT TO INSTALL  
JEFFERSON COUNTY  
Application No: 06-07467  
Fac ID: 0641000223**

**CERTIFIED MAIL**

Y	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
40 CFR 60 WWW	NSPS
40 CFR 63 AAAAA	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
Y	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

**DATE: 10/28/2004**

Apex Energy Apex Sanitary Landfill  
David Krulock  
PO Box 1298  
Steubenville, OH 43952

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging 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 Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. 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, Ohio 43215

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

cc: USEPA

SEDO



**Permit To Install  
Terms and Conditions**

**Issue Date: 10/28/2004  
Effective Date: 10/28/2004**

**FINAL PERMIT TO INSTALL 06-07467**

Application Number: 06-07467  
Facility ID: 0641000223  
Permit Fee: **\$1450**  
Name of Facility: Apex Energy Apex Sanitary Landfill  
Person to Contact: David Krulock  
Address: PO Box 1298  
Steubenville, OH 43952

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**91999 Amsterdam Rd.  
Jewett, Ohio**

Description of proposed emissions unit(s):  
**Chapter 31 Modification to PTI 06-06987: Waste acceptance rate increase and storage pile size changes.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described 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

Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. State and Federally Enforceable Permit To Install General Terms and Conditions

#### 1. Monitoring and Related Recordkeeping 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:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. 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:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. 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 appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the

previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., 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.
- iv. 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.

## **2. 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 appropriate Ohio EPA District Office or local air agency 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).

## **3. 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.

## **4. 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.

## **5. Severability Clause**

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.

## **6. 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 reissuance, or modification, or for denial of a permit renewal application.
- 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, reopened, 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, reopening 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.

## **7. 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 this Permit To Install.

## **8. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that 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, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

## 9. Compliance Requirements

- a. 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.
- b. 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:
  - i. 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.
  - ii. 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.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. 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.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency 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:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. 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.

## 10. Permit To Operate Application

- a. If 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).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

#### **11. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

#### **12. 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.

**B. State Only Enforceable Permit To Install General Terms and Conditions**

**1. Compliance Requirements**

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

**2. 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 appropriate Ohio EPA District Office or local air agency.
- 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 appropriate Ohio EPA District Office or local air agency. 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., 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.)

**3. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**4. Termination of Permit To Install**

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. 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.

**5. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. 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 the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install 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.

**6. 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.

**7. 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).

**8. Construction Compliance Certification**

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

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., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**C. Permit To Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)  
**TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
PE (fugitive)	30.92
NMOC (fugitive)	95.76
Methane (fugitive)	14,982

**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

None.

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None.

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
<p>F002 - Refuse disposal activities including dumping, spreading, compacting, and covering.</p> <p>Terms in this permit supercede those identified in PTI 06-06987 issued 12/10/2002 for this emissions unit.</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>95.76 tons (86.87 Mg) of fugitive nonmethane organic compounds (NMOC)/year;</p> <p>14,982 tons (13,591.4 Mg) of fugitive methane/year;</p> <p>29.12 tons (26.42 Mg) of fugitive particulate emissions (PE)/year;</p> <p>Use of best available control measures to minimize or prevent the emission of fugitive dust, see Sections A.I.2.b through A.I.2.e below;</p> <p>The requirements of this rule also include compliance with the requirements of 40 CFR Part 60 Subpart WWW, CFR Part 63, Subpart AAAA, OAC rule 3745-17-07(B)(1), 3745-17-08(B), and OAC rule 3745-19.</p>
	<p>40 CFR Part 60, Subpart WWW</p>	<p>See Sections A.I.2.f below.</p>
	<p>OAC rule 3745-17-07(B)(1)</p>	<p>Visible fugitive particulate emissions shall not exceed 20 percent opacity as a three minute average.</p>
	<p>OAC rule 3745-17-08(B)</p>	<p>The control measures specified by this rule are less stringent than the control</p>

OAC rule 3745-19	measures established pursuant to OAC rule 3745-31-05(A)(3).
40 CFR Parts 63, Subpart AAAAA	See Section A.I.2.1 below. See Sections A.I.2.m through A.I.2.s below.

**2. Additional Terms and Conditions**

**2.a** The landfill fugitive dust operations/sources that are covered by this permit and subject to the requirements of OAC rule 3745-31-05 are listed below:

- i. waste dumping/unloading
- ii. waste compaction
- iii. soil excavation and handling
- iv. covering of waste with soil
- v. wind erosion from landfill surfaces

**2.b** The permittee shall ensure 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 which 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, but any watering shall avoid free liquids and runoff. No dusty material shall be dumped during periods of high wind speed unless treated to prevent it from becoming airborne.

**2.c** 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.

**2.d** 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.

- 2.e** 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.
- 2.f** The MSW landfill has a design capacity greater than 2.5 million megagrams and 2.5 million cubic meters. As a result, the permittee shall calculate a NMOC emission rate using the procedures specified in Section A.V.1. The NMOC emission rate shall be recalculated annually, except as provided in Section A.IV.3.
- 2.g** This facility shall not accept for disposal any NESHAP Regulated Asbestos Containing Material (RACM) as defined in the NESHAP for Asbestos, 40 CFR Part 61, Subpart M, section 141 amended November 20, 1990 or any subsequent revisions. This regulation defines RACM as "(a) Friable asbestos material, (b) Category I nonfriable asbestos containing material that has become friable, (c) Category I nonfriable asbestos containing material that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II nonfriable 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."
- 2.h** In addition, this facility shall not accept for disposal any Category II nonfriable asbestos containing material.
- 2.i** For asbestos materials, this facility shall be limited to accepting Category I nonfriable asbestos containing material that has not or will not be subjected to sanding, grinding, cutting or abrading.
- 2.j** The facility shall ensure that any Category I nonfriable 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 or becomes friable is subject to the NESHAPS regulation cited in additional term and condition A.I.2.g.
- 2.k** All terms stated in Additional Special Terms and Conditions Sections A.I.2.g through A.I.2.j are defined as in 40 CFR 61.141 amended November 20, 1990 or any subsequent revisions.
- 2.l** There shall be no open burning in violation of Ohio Administrative code 3745-19 at this facility.
- 2.m** The permittee shall comply with the NESHAP general provisions specified in 40 CFR Parts 63.1(a), 63.1(b), 63.1(e), 63.2, 63.4, 63.5(b), 63.6(e) operations and maintenance requirements including requirements for a Startup, Shutdown and Malfunction SSM Plan, 63.6(f), 63.10(b)(2)(i) through 63.10(b)(2)(v), 63.10(d)(5) malfunction reporting, 63.12(a) and 63.15.

  - i. As defined in 40 CFR 63.2, a malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which

causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

- ii. By the compliance deadline and thereafter, the permittee must operate and maintain this emissions unit, including associated air pollution control equipment and monitoring equipment, at all times, including periods of startup, shutdown, and malfunction, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the permittee reduce emissions from this emissions unit to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the permittee to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Ohio EPA which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, including the startup, shutdown, and malfunction (SSM) plan required by 40 CFR 63.6(e)(3), review of operation and maintenance records, and inspection of this emissions unit.
  - iii. Malfunctions must be corrected as soon as practicable after their occurrence in accordance with the SSM plan required in 40 CFR 63.6 (e)(3). To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.
  - iv. Operation and maintenance requirements established pursuant to section 112 of the Clean Air Act are enforceable independent of emissions limitations or other requirements in relevant standards.
- 2.n** The permittee must develop and implement a written SSM plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control and monitoring equipment used to comply with the relevant standard, NESHAP Subpart AAAA. The purpose of the SSM plan is to:
- i. ensure that, at all times, the permittee operates and maintains this emissions unit, including associated air pollution control and monitoring equipment, in a manner which satisfies the general duty to minimize emissions established by 40 CFR 63.6(e)(1)(i);

- ii. ensure that the permittee is prepared to correct malfunctions as soon as practicable after their occurrence, in order to minimize excess emissions of hazardous air pollutants; and
  - iii. reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).
- 2.o** To satisfy the requirements of 40 CFR 63.6(e) to develop a SSM plan, the permittee may use the emissions unit's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of 40 CFR 63.6(e) and are made available for inspection or submitted when requested by the Ohio EPA.
- 2.p** Based on the results of a determination made under 40 CFR 63.6(e)(1)(i), the Ohio EPA may require that a permittee make changes to the SSM plan. The Ohio EPA must require appropriate revisions to the SSM plan, if the Ohio EPA finds that the plan:
  - i. does not address a startup, shutdown, or malfunction event that has occurred;
  - ii. fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by paragraph 40 CFR 63.6(e)(1)(i);
  - iii. does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or
  - iv. includes an event that does not meet the definition of startup, shutdown, and/or malfunction listed in 40 CFR 63.2.
- 2.q** The permittee may periodically revise the SSM plan for this emissions unit as necessary to satisfy the requirements of 40 CFR 63.6(e) or to reflect changes in equipment or procedures at this emissions unit. Unless Ohio EPA provides otherwise, the permittee may make such revisions to the SSM plan without prior approval by the Ohio EPA. However, each such revision to SSM plan must be reported in the semiannual report required by 40 CFR 63.10(d)(5). If the SSM plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the SSM plan at the time the permittee developed the plan, the permittee must revise the SSM plan within 45 days after the event, to include detailed procedures for operating and maintaining this emissions unit during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the permittee makes any revision to the SSM plan which alters the scope of the activities at this emissions unit which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other

requirement in the NESHAP, Subpart AAAA, the revised plan shall not take effect until after the permittee has provided a written notice describing the revision to the Ohio EPA.

- 2.r The Title V Operating Permit for this emissions unit must require that the permittee adopt a SSM plan which conforms to the provisions of 40 CFR 63.6(e), and that the permittee operate and maintain this emissions unit in accordance with the procedures specified in the current SSM plan. However, any revisions made to the SSM plan in accordance with the procedures established by 40 CFR 63.6(e) shall not be deemed to constitute permit revisions under part 70 or part 71 of this chapter. Moreover, none of the procedures specified by the SSM plan for this emissions unit shall be deemed to fall within the permit shield provision in section 504(f) of the Clean Air Act.
- 2.s If a collection and/or control system is capped or removed, all of the conditions of paragraphs 60.752(b)(2)(v)(A),(B), and (C) shall be met.

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

- 1. The permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity, 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 or electronic formats are acceptable.
- 2. 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	<u>minimum inspection frequency</u>
a.	waste dumping/unloading	once during each day of operation
b.	waste compaction	once during each day of operation
c.	soil excavation and handling	once during each day of operation
d.	covering of waste with soil	once during each day of operation
e.	wind erosion from landfill surfaces	once during each day of operation

- 3. 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 events shall be performed as soon as such event(s) has (have) ended, except if the next inspection is within one week.

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

The information in Section A.III.4.d shall be kept separately for each landfill fugitive dust operation/source identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

#### **IV. Reporting Requirements**

1. The permittee shall submit an annual NMOC emission rate report to the Director, except as provided for in Section A.IV.3. The Director may request such additional information as may be necessary to verify the reported NMOC emission rate.
2. The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formulas and procedures provided in Section A.V.1.
3. If the estimated NMOC emission rate, as documented in the annual report, is less than 50 megagrams per year in each of the next 5 consecutive years, the permittee may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report, as per 40 CFR Part 60.757 (b)(1)(ii). This estimate shall include the current amount of solid waste in place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Southeast District Office. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Southeast District Office. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.
4. The NMOC emission rate report shall include all the data, calculations, sample reports, and measurements used to estimate the annual or 5-year emissions.

5. The permittee shall submit deviation reports that identify any of the following occurrences:
- each day during which an inspection was not performed by the required frequency; and
  - each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.

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

## V. Testing Requirements

1. The permittee shall calculate the NMOC emission rate using either the equation provided in Section A.V.1.a or the equation provided in Section A.V.1.b. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in Section A.V.1.a, for part of the life of the landfill. The values to be used in both equations are 0.05 per year for "k", until a site-specific methane generation rate constant can be determined as required in Section V.3; 170 cubic meters per megagram for "L<sub>0</sub>"; and 4,000 ppm by volume hexane for "C<sub>NMOC</sub>", until samples are collected and the actual NMOC concentration is determined, as specified in Section A.V.3.
- The following equation shall be used if the actual year-to-year solid waste acceptance rate is known:

$$M_{NMOC} = \sum_{i=1}^n 2k L_0 M_i (e^{-kt_i}) C_{NMOC} (3.6 \times 10^{-9})$$

where,

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

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

L<sub>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 x 10<sup>-9</sup> = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value 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:

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

Where:

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

$L_o$  = 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

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

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

$3.6 \times 10^{-9}$  = 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 of  $R$ , if documentation of the nature and amount of such wastes is maintained.

2. If the resulting NMOC mass emission rate calculated in Section V.1 is less than 50 megagrams per year, then the permittee shall:
- a. submit an annual emission report to the Administrator; and
  - b. recalculate the NMOC emission rate annually using the procedures specified in Section 60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year or the landfill is closed.

If the estimated NMOC emission rate as reported in the annual report is less than 50 megagrams per year in each of the next 5 consecutive years, the permittee may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report, as per 40 CFR Part 60.757 (b)(1)(ii), (See Section IV.3).

3. If the resulting NMOC mass emission rate calculated in Section V.1 is equal to or greater than 50 megagrams per year, the permittee shall comply with 40 CFR 60.752(b)(2) or 40 CFR 60.754 as follows:

Compliance with 40 CFR 60.752(b)(2)

In order to demonstrate compliance with 40 CFR 60.752(b)(2) the permittee shall:

- a. submit a collection and control system design plan prepared by a professional engineer to the Southeast District Office within one year in accordance with 40 CFR 60.752(b)(2);
- b. within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, install a collection and control system that captures the gas generated within the landfill, as required by 40 CFR 60.752 (b)(2)(ii)(A) for an active collection system or (B) for a passive collection system;
- c. within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, route all the collected gas to a control system meeting the following requirements:
  - i. an open flare designed and operated in accordance with 40 CFR 60.18; or
  - ii. a control system designed and operated to reduce NMOC by 98 weight-percent; or, if the control is an enclosed combustion device, to either reduce the NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 ppm by volume, dry basis as hexane at 3% oxygen\*; or
  - iii. route the collected gas to a treatment system that processes the collected gas for subsequent sale or use\*\*
- d. operate the collection and control device in accordance with the provisions of 40 CFR 60.753, 60.755, and 60.756\*\*\*;
- e. submit a Permit to Install (PTI) application for a modification of the MSW landfill to address new source review issues associated with the installation of the collection and control system.

\* The reduction efficiency or ppm by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in 40 CFR 60.754(d).

\*\* All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of "c.i" and "c.ii" above.

\*\*\* The collection and control system may be capped or removed if all of the conditions of paragraphs 60.752(b)(2)(v)(A),(B), and (C) are met.

**OR**

Compliance with 40 CFR 60.754

In order to demonstrate compliance with 40 CFR 60.754:

- a. The permittee shall recalculate the NMOC mass emission rate, applying the equations in Section V.1 above and using the average NMOC concentration ( $C_{\text{NMOC}}$ ) from the collected samples, derived as required in "b" below; and the site-specific methane generation rate constant "k", determined using the procedures from Method 2E of Part 60, Appendix A (from "c" below), instead of the default values for " $C_{\text{NMOC}}$ " and "k" provided in that section (Section V.1). The permittee shall retest the site-specific NMOC concentration every 5 years using the methods specified below ("b"). The calculation of the site-specific methane generation rate constant "k" needs to be performed only once ("c"), and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.
- b. The permittee shall determine the NMOC concentration using the following sampling procedure. The permittee shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 sample probes are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The permittee shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of Appendix A of 40 CFR Part 60. Method 18 of Appendix A of 40 CFR Part 60 may be used to analyze the samples collected by the Method 25 or 25C sampling procedure. 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. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If using Method 18, the permittee must identify all compounds in the sample and, as a minimum, test for those compounds published in the most recent Compilation of Air Pollutant Emission Factors (AP-42), minus carbon monoxide, hydrogen sulfide, and mercury. As a minimum, the instrument must be calibrated for each of the compounds on the list. Convert the concentration of each Method 18 compound to  $C_{\text{NMOC}}$  as hexane by multiplying by the ratio of its carbon atoms divided by six. The permittee must divide the NMOC concentration from Method 25 or 25C of Appendix A of 40 CR Part 60 by six to convert from  $C_{\text{NMOC}}$  as carbon to  $C_{\text{NMOC}}$  as hexane. 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 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.

- c. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of appendix A in 40 CFR Part 60.
4. Compliance with the emissions limitation(s) in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:

29.12 tons (26.42 Mg) of fugitive PE/year

Compliance Method:

The permittee shall demonstrate compliance by adding maximum potential emissions from wind erosion from landfill surfaces, waste dumping/unloading, waste compaction, soil excavation and handling, and covering of waste with soil.

The maximum potential emission rate for wind erosion was calculated by multiplying an emission factor of 14.59 kg PE/hectare/day, as determined using the equation from U.S. EPA's Control of Open Fugitive Dust Sources (September 1988) times the maximum surface area of 4.856 hectares, the number of days in a year, and by the conversion factors of Mg/1000 kg and ton/0.907185 Mg.

$$E \text{ (kg/day/acre)} = 1.9 \text{ (s/1.5)} \text{ (365-p/235)} \text{ (f/15)}$$

where:

E = emission factor in kg/day/hectare (3.53 kg/day/hectare)

s = silt content (9.2% for soil piles)

p = number of days with greater than 0.01 inches of precipitation (145)

f = percentage of time wind speed exceeds 12 mph (20%)

Therefore:

$$14.59 \text{ kg/hectare/day} \times 4.856 \text{ hectares} \times 365 \text{ day/yr} \times \text{Mg}/1000\text{kg} \times \text{ton}/0.907185 \text{ Mg} = 28.51 \text{ tons/yr}$$

The maximum potential emission rate for solid waste handling was calculated by multiplying an emission factor of 0.000116 kg PE/Mg, determined from AP-42, Chapter 13.2.4.3 (1/95), Equation 1, by a maximum annual throughput of 1,489,091 Mg of waste accepted/year and by the conversion factors of Mg/1000 kg and ton/0.907185 Mg.

$$E = k \text{ (0.0016)} \times [ (U/2.2)^{1.3} / (M/2)^{1.4} ]$$

where:

E = emission factor (0.000116 kg PE/Mg)

k = particle size multiplier (0.725)

U = mean wind speed (4.47 m/s)

M = material moisture content (20%)

Therefore:

$$0.000116 \text{ kg/Mg} \times 1,489,091 \text{ Mg/yr} \times \text{Mg}/1000 \text{ kg} \times \text{ton}/0.907185 \text{ Mg} = 0.19041 \text{ ton/yr}$$

The maximum potential emission rate for cover soil handling was calculated by multiplying an emission factor of 0.00081 kg PE/Mg determined from AP-42, Chapter 13.2.4.3 (1/95), Equation 1, by a maximum annual throughput of 470,191.4 Mg of soil handled/year and by the conversion factors of Mg/1000 kg and ton/0.907185 Mg.

$$E = k (0.0016) \times [ (U/2.2)^{1.3} / (M/2)^{1.4} ]$$

where:

E = emission factor (0.00081 kg PE/Mg)

k= particle size multiplier (0.725)

U = mean wind speed (4.47 m/s)

M = material moisture content (5%)

Therefore:

$$0.00081 \text{ kg/Mg} \times 470,191 \text{ Mg/yr} \times \text{Mg}/1000 \text{ kg} \times \text{ton}/0.907185 \text{ Mg} = 0.41982 \text{ ton/yr}$$

And:

$$28.51 \text{ tons PE/yr from wind erosion} + 0.19041 \text{ ton PE/yr from solid waste handling} + 0.41982 \text{ ton PE/yr from cover soil handling} = 29.12 \text{ tons PE/yr}$$

b. Emission Limitation:

95.76 tons (86.87) Mg of fugitive NMOC/year

Compliance Method:

The permittee shall demonstrate compliance with the above emission limitation through the annual NMOC emission rate report required in Section A.IV.1.

c. Emission Limitation:

14,982 tons (13,591.4 Mg) of fugitive methane/year

Compliance Method:

The permittee shall demonstrate compliance through calculations using the Landfill Gas Emissions Model (LandGEM) version 2.01 for a maximum landfill capacity of 7,956,853 Mg of compacted waste and AP-42 emission factors from Section 2.4, Municipal Solid Waste Landfills (11/98).

d. Emission Limitation:

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

Compliance Method:

If required the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A - Method 9.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F002 - Refuse disposal activities including dumping spreading compacting and covering.	OAC rule 3745-31-05	None

2. **Additional Terms and Conditions**

- 2.a None.

**II. Operational Restrictions**

None.

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit was evaluated based on the design parameters of the emissions unit as specified by the permittee in the accepted application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene

TLV (mg/m3): 13.3

Maximum Hourly Emission Rate (lbs/day): 1.55

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 64.31

MAGLC (ug/m3): 316

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

2. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
  - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### **IV. Reporting Requirements**

None.

**V. Testing Requirements**

None.

**VI. Miscellaneous Requirements**

None.

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
<p>F003 - Storage piles activities including soil, sand, and aggregate.</p> <p>Terms in this permit supercede those identified in PTI 06-06987 issued 12/10/2002 for this emissions unit.</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>Fugitive particulate emissions shall not exceed 1.80 tons per year;</p>
<p>load-in and load-out of storage piles (see Section A.2.a for identification of storage piles)</p>		<p>No visible emissions except for one minute in any hour;</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.I.2.b, A.I.2.c and A.I.2.f);</p>
<p>wind erosion from storage piles (see Section A.2.a for identification of storage piles)</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>No visible emissions except for one minute in any hour;</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.I.2.d through A.I.2.f);</p>
<p>load-in and load-out of storage piles, and wind erosion from storage piles</p>	<p>OAC rule 3745-17-07 (B)(6)</p>	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3);</p>

OAC rule 3745-17-08 (B), (B)(6)

The control measures specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

## 2. Additional Terms and Conditions

- 2.a** The storage piles that are covered by this permit and subject to the above-mentioned requirements are listed below:
- i. soil (approximately six piles) average 1.50 acre each;
  - ii. aggregate (approximately three piles) average 0.50 acre each; and
  - iii. granular material (approximately two piles) average 0.50 acre each
- 2.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 accepted permit application, the permittee has committed to treat the load-in and load-out materials with water and/or any other suitable dust suppression chemicals to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.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.
- 2.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 approved permit application, the permittee has committed to treat each storage pile with water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.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.

- 2.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 rules 3745-17-08 and 3745-31-05.

**II. Operational Restrictions**

None

**III. 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 in accordance with the following frequencies:

storage pile identification	minimum load-in inspection frequency
All	Daily

- 2. Except as otherwise provided in this section, the permittee shall perform inspections of each load-out operation at each storage pile in accordance with the following frequencies:

storage pile identification	minimum load-out inspection frequency
All	Daily

- 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 in accordance with the following frequencies:

storage pile identification	minimum wind erosion inspection frequency
All	Daily

- 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 determine the need for implementing the control measures specified in this permit for load-in and load-out of a storage pile, and wind erosion from the surface of a storage pile. 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 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, 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 measure(s).

The information required in A.III.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.

#### IV. 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.

#### V. Testing Requirements

- 1. Emission Limitation:

No visible emissions except for one minute in any hour

Compliance Method:

Compliance with the visible emission limitations for 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"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.

- 2. Emission Limitation:

Fugitive particulate emissions shall not exceed 1.80 tons per year

The maximum potential emission rate for storage pile load-in and load-out operations was calculated by multiplying an emission factor of 0.00081 kg PE/Mg, as determined from AP-42, Chapter 13.2.4.3 (1/95), Equation 1, by the maximum throughput of 406,416 Mg for all storage pile operations combined, and by the conversion factors of Mg/1000 kg and ton/0.907185 Mg.

$$E = k (0.0016) \times [ (U/2.2)^{1.3} / (M/2)^{1.4} ]$$

where:

E = emission factor 0.00081 kg PE/Mg

k = particle size multiplier (0.725)

U = mean wind speed (4.47 m/s)

M = material moisture content (5%)

Therefore:

$$0.00081 \text{ kg/Mg} \times 406,416 \text{ Mg/yr} \times \text{Mg}/1000 \text{ kg} \times \text{ton}/0.907185 \text{ Mg} = 0.36288 \text{ ton/yr}$$

The maximum potential emission rate for wind erosion was calculated by multiplying an emission factor of 3.535 kg PE/hectare/day, as determined using the equation from U.S. EPA's Control of Open Fugitive Dust Sources (September 1988), by the maximum surface area of 1.01 hectares, the number of days in a year, and by the conversion factors of Mg/1000 kg and ton/0.907185 Mg.

$$E \text{ (kg/day/acre)} = 1.9 (s/1.5) (365-p/235) (f/15)$$

where:

E = emission factor in kg/day/hectare (3.535 kg/day/hectare)

s = silt content (9.2% for soil piles)

p = number of days with greater than 0.01 inches of precipitation (145)

f = percentage of time wind speed exceeds 12 mph (20%)

Therefore:

$$3.535 \text{ kg/hectare/day} \times 1.01 \text{ hectares} \times 365 \text{ day/yr} \times \text{Mg}/1000 \text{ kg} \times \text{ton}/0.907185 \text{ Mg} = 1.43651 \text{ tons/yr}$$

And:

$$0.36288 \text{ ton PE/yr from load-in/load-out operations} + 1.43651 \text{ tons PE/yr from wind erosion} = 1.80 \text{ tons PE/yr}$$

## VI. Miscellaneous Requirements

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F003 - Storage piles activities including soil sand and aggregate.	None	None

2. **Additional Terms and Conditions**

- 2.a None.

**II. Operational Restrictions**

None.

**III. Monitoring and/or Recordkeeping Requirements**

None.

**IV. Reporting Requirements**

None.

**V. Testing Requirements**

None.

**VI. Miscellaneous Requirements**

None.