OhioEPA

State of Ohio Environmental Protection Agency

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

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

10/10/01

RE: Proposed Title V Chapter 3745-77 Permit
15-76-18-1541
American Landfill

Attn: Genevieve Damico AR-18J
United States Enviromental Protection Agency
Region V
77 West Jackson Blvd.
Chicago, IL 60604-3590

Dear Ms. Damico:

The proposed issuance of the Title V permit for American Landfill, has been created in Ohio EPA's State Air Resources System (STARS) on 10/10/01, for review by USEPA. This proposed action is identified in STARS as 3-Title V Proposed Permit T+C covering the facility specific terms and conditions, and Title V Proposed Permit covering the general terms and conditions. This proposed permit will be processed for issuance as a final action after forty-five (45) days from USEPA's receipt of this certified letter if USEPA does not object to the proposed permit. Please contact Mike Ahern, DAPC Permit Management Unit supervisor at (614) 644-3631 by the end of the forty-five (45) day review period if you wish to object to the proposed permit.

Very truly yours,

Thomas G. Rigo

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

cc: Canton Division of Air Pollution Control
File, DAPC PMU

State of Ohio Environmental Protection Agency

PROPOSED TITLE V PERMIT

Issue Date: 10/10/01	Effective Date: To be entered upon final issuance	Expiration Date: To be entered upon final issuance

This document constitutes issuance of a Title V permit for Facility ID: 15-76-18-1541 to:
American Landfill
7916 Chapel Street, S.E.
Sandy Township, Stark County, OH 44688

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

F001 (Roadways and parking areas) Fugitive dust from vehicle traffic on landfill roadways and parking areas F002 (Material handling)	Land disposal of municipal solid waste (including asbestos) F004 (Soil/Aggregate stockpiles)	Fugitive dust from soil/aggregate stockpiles

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-04(A) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Canton Division of Air Pollution Control
420 Market Avnue N.
Canton, OH 44702-1544
(330) 489-3385

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

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 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 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 <u>emission limitations</u>, <u>operational restrictions</u>, <u>and control device operating parameter limitations</u>, 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 promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. 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. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.) See B.8 below if no deviations occurred during the quarter.
iii. Written reports, which identify any deviations from the federally enforceable <u>monitoring</u>, <u>recordkeeping</u>, <u>and</u> <u>reporting</u> <u>requirements</u> 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. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting requirements. 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 submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

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.

8. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

9. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

10. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

11. 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.

12. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V 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 paragraph (E) of OAC rule 3745-77-03.

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.

d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the appropriate Ohio EPA District Office or local air agency in the following manner and with the following content:

i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.

ii. Compliance certifications shall include the following:

(a) An identification of each term or condition of this permit that is the basis of the certification.

(b) The permittee's current compliance status.

(c) Whether compliance was continuous or intermittent.

(d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.

(e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

13. Permit Shield

a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but

excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

15. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

16. Off Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition;

b. The permittee provides contemporaneous written notice of the change to the director and the administrator, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change;

c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F);

d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes; and

e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For further clarification, the permittee can refer to Engineering Guide #63 that is available in their STARSHIP software package.)

17. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

18. Insignificant Activity

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

B. State Only Enforceable Section

1. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping 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 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. Records Retention Requirements

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.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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 verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

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 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. 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 emissions unit(s) that is (are) served by such control system(s).

6. 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.

7. 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.

8. Additional Reporting Requirements When There Are No Deviations of <u>Federally Enforceable</u> 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.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforcable Section

None

B. State Only Enforceable Section

1. The following insignificant emissions unit is located at this facility:

G001 - fuel dispensing facility.

The insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within a permit to install for the emissions unit.

2. The permittee shall not cause or allow any open burning in violation of OAC Chapter 3745-19 at this facility.

3. The permittee shall not initiate or allow any salvage operations to be conducted at this location without prior written approval of the Ohio EPA.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Roadways and parking areas (F001)

Activity Description: Fugitive dust from vehicle traffic on landfill roadways and parking areas

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
paved and unpaved roadways and parking areas (fugitive emissions)	OAC rule 3745-31-05 PTI 15-303 issued 01/29/86	Speed zones of no more than 10 miles per hour shall be established, posted, enforced and observed by all vehicles operating within the facility. Operate this emissions unit in such a manner as to minimize or eliminate visible particulate emissions of fugitive dust. (See sections A.I.2.c through A.I.2.k) no visible particulate emissions except for 6 minutes during any 60-minute period for the paved roadways and parking areas no visible particulate emissions except for 13 minutes during any 60-minute period for the unpaved roadways and parking areas
	OAC rules 3745-17-08(B) and 3745-17-07(B)	See section A.I.2.a.

2. Additional Terms and Conditions

2.a There are no applicable emission limitations/control measures from OAC rules 3745-17-08(B) and 3745-17-07(B) because the facility is not located in an Appendix A area as specified in OAC rule 3745-17-08.

2.b The paved roadways and parking areas that are covered by this permit are listed below.

Paved roadways: RD-1
Paved parking areas: P-2 and P-4

2. Additional Terms and Conditions (continued)

2.c The unpaved roadways and parking areas that are covered by this permit are listed below.

Unpaved roadways: RD-2, RD-3, RD-4, RD-5, and RD-6
Unpaved parking areas: P-1 and P-3

2.d All paved roadways and parking areas shall be flushed with water to minimize or eliminate, at all times, visible emissions of fugitive dust generated by vehicular traffic and to ensure compliance with the above-mentioned visible emission limitation for paved roadways and parking areas.

2.e 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.

2.f The unpaved shoulders of all paved roadways shall be treated with water and/or any other suitable dust suppression chemicals to minimize or eliminate, at all times, visible emissions of fugitive dust generated by vehicular traffic and to ensure compliance with the above-mentioned visible emission limitation for paved roadways and parking areas.

2.g All unpaved roadways and parking areas shall be treated with water and/or any other suitable dust suppression chemicals to minimize or eliminate, at all times, visible emissions of fugitive dust generated by vehicular traffic and to ensure compliance with the above-mentioned visible emission limitation for unpaved roadways and parking areas. The permittee shall maintain and operate a truck mounted spray system to distribute water and/or any other suitable dust suppression chemicals on unpaved roadways and parking areas.

2.h The control measures shall be implemented at frequencies that will minimize or eliminate visible emissions of fugitive dust generated by vehicular traffic and ensure compliance with the above-mentioned visible emission limitations, and the needed frequencies of implementation shall be determined by the permittee's inspections. It is further understood that on any specific day, implementation of the control measures shall not be necessary for a paved or unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to minimize or eliminate visible emissions of fugitive dust generated by vehicular traffic and to ensure compliance with the above-mentioned visible emission limitations.

2.i Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be considered as a paved roadway or parking area and controlled with the control measure specified above for paved surfaces. Such unpaved roadway or parking area shall remain subject to the visible emission limitation for unpaved roadways and parking areas.

2.j Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary to minimize or eliminate visible emissions of fugitive dust.

2.k The tires and bodies of all heavy-duty vehicles shall be washed with high pressure water prior to leaving the facility to prevent the carryover of dust or mud to public roadways. This washing shall not be required in freezing weather.

2.l If dust or mud is carried onto public roadways, it shall be removed, at the latest, by the end of the working day.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform inspections of the roadways and parking areas in accordance with the following frequencies:

paved roadways and parking areas:
Paved roadways: RD-1
Paved parking areas: P-2 and P-4

minimum inspection frequency:
Daily, by 12:00 noon, on days of operation only;

unpaved roadways and parking areas:
Unpaved roadways: RD-2, RD-3, RD-4, RD-5, and RD-6
Unpaved parking areas: P-1 and P-3

minimum inspection frequency:
Twice daily, by 12:00 noon and by the end of the day, on days of operation only;

The purpose of the inspections is to determine the need for implementing the control measures specified in section A.I.2. 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 minimize or eliminate visible emissions of fugitive dust generated by vehicular traffic and to ensure compliance with the above-mentioned visible emission limitations. 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.

The permittee may, upon receipt of written approval from the Canton local air agency, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to minimize or eliminate visible emissions of fugitive dust generated by vehicular traffic and to ensure compliance with the above-mentioned visible emission limitations.

2. The permittee shall maintain records of the following information:

2.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;

2.b the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;

2.c the dates the control measures were implemented; and

2.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 2.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.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify any of the following occurrences:

1.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

1.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 paragraph A.1.c.ii of the General Terms and Conditions.

IV. Reporting Requirements (continued)

3. If there are no deviations during a calendar quarter that must be reported pursuant to section A.IV of this permit, the permittee shall submit a quarterly report, in accordance with paragraph B.8 of the general terms and conditions, which states that no deviations occurred during that quarter.

V. Testing Requirements

1. Compliance with the emission limitations for the paved and unpaved roadways and parking areas 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)(d) of OAC rule 3745-17-03.*)

* The procedures relating to Test Method 22 reflect the settlement agreement reached between Ohio EPA and the Ohio Electric Utilities concerning the Utilities' appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule containing the procedures was adopted by the Director of Ohio EPA in December, 1997. The USEPA and the Ohio Electric Utilities have agreed to consider the procedures as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of the procedures as a revision to the Ohio SIP for particulate matter.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Material handling (F002)

Activity Description: Land disposal of municipal solid waste (including asbestos)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Municipal Solid Waste (MSW) Landfill Operations; material handling operations for the landfill disposal of MSW (fugitive emissions);	OAC rule 3745-31-05 PTI #15-303 issued 01/29/86	Any bulk, dry, dusty materials shall be watered, as necessary, prior to or during dumping operations in order to minimize or eliminate visible emissions. Any dusty material to be stored prior to disposal shall be watered, as necessary, or have a temporary soil cover in order to minimize or eliminate visible emissions of fugitive dust. Use of best available control measures, as defined in section A.I.2.a, to minimize or eliminate visible emissions of fugitive dust. The landfill areas that are covered by this permit and subject to the above emission limitations and control measures are all landfill areas where MSW is deposited.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
asbestos disposal;	OAC rule 3745-31-05 PTI #15-303 issued 01/29/86	Use of best available technology disposal requirements as defined in section A.I.2.b to prevent the emissions of fugitive dust.
	OAC rule 3745-20-06	The applicable emission limitations/ control measures from this rule are less stringent than the emission limitations/ control measures from the NESHAP (40 CFR Part 61, Subparts A and M).
	40 CFR Part 61, Subparts A and M	No visible emissions; and Use of handling procedures and control measures as defined in section A.I.2.c to prevent the emissions of fugitive dust.
the following processes generated landfill gases (LFG): the active collection of LFG and the disposal of LFG with an open flare;	OAC rule 3745-31-05 PTI #15-1244 issued 12/24/96:	50.01 lbs CO/hr 219.03 TPY CO 9.18 lbs NOx/hr 40.21 TPY NOx 0.92 lb SO2/hr 4.02 TPY SO2 4.77 lbs HCL/hr 20.91 TPY HCL 18.90 lbs CH4/hr 82.78 TPY CH4 0.04 TPY H2S 0.02 TPY Benzene 0.37 TPY Toluene 0.03 TPY Vinyl Chloride 0.14 TPY Dichlorodifluoromethane 0.02 TPY Chlorobenzene 0.11 TPY Methylene Chloride 0.05 TPY 1, 2 Dichloroethane 0.07 TPY Carbon Tetrachloride 0.10 TPY Tetrachlorethane 0.03 TPY 1, 1 Dichloroethane 0.01 TPY 1, 1, 2, 2 - Tetrachloroethane 0.01 Chloromethane 0.02 Chlorodifluoromethane
	40 CFR Part 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills	See sections A.I.2.d through A.I.2.f below.

2. Additional Terms and Conditions

2.a Best Available Control Measures for All Waste Materials Except Regulated Asbestos-Containing Materials (RACM).

The permittee shall ensure that solid wastes are deposited, spread and compacted in such a manner as to minimize or prevent visible emissions of dust. All truckloads of solid waste shall 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. 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.b BAT Disposal Requirements for RACM

The permittee shall implement and maintain an "Asbestos Disposal Operating Procedure and Spill Contingency Plan" ("Plan") consisting of: authorized personnel training, inspection and disposal operating procedures, non-conforming load response procedures, inventory and maintenance procedures for safety and emissions control equipment, record keeping procedures, and emergency notification procedures. Authorized personnel shall be knowledgeable in the procedures, and the Plan shall be available for inspection at this facility at all times.

2.c NESHAP Subpart M Handling Procedures and Control Measures for the Disposal of RACM

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

ii. The permittee shall inspect each load of RACM delivered to the facility. The inspection shall consist of a visual examination to ensure that each shipment of RACM is received in intact, leak-tight containers labeled with appropriate hazard warning labels, the name of the waste generator, and the location of waste generation. The inspection shall also determine whether the waste shipment records accompany the consignment and accurately describe the waste material and quantity.

If the waste material is found to be improperly received on the basis of the inspection, the load shall be disposed of in accordance with the procedures in the "Asbestos Spill Contingency Plan," and the discrepancy shall be noted on the waste shipment record.

iii. Deposition and burial operations shall be conducted in a careful manner that prevents RACM from being broken up or dispersed before the materials are buried.

iv. The permittee shall cover and compact asbestos wastes in accordance with the following:

(a) As soon as practicable after the placement of friable asbestos, but no later than the end of each working day, the RACM deposited at the site during the operating day shall be covered with at least 2 inches of non-asbestos-containing materials. Once the RACM is covered, the area may be compacted.

(b) Care shall be taken to ensure that disposed asbestos shall not be re-excavated in subsequent operations. Any accidentally exposed material shall be immediately recovered in accordance with the provisions of the previous term and condition; and

(c) RACM shall be separated from the landfill final grade by no less than 24 inches of compacted non-asbestos-containing materials and a permanent cover of vegetation, or in accordance with current requirements for closure, whichever is more stringent.

2. Additional Terms and Conditions (continued)

v. The permittee shall establish restricted access, adequate to deter the unauthorized entry of the general public and any unauthorized personnel, within 100 feet of the unloading, deposition, and burial areas for the RACM. A hazard warning shall be displayed on signs not less than 20 X 14 inches in size, posted so they are visible before entering an area with asbestos waste disposal operations in progress; or alternatively, mark vehicles used to transport RACM with 21 X 14 inch signs so that the signs are displayed in such a manner and location that a person can easily read the legend. Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend:

DANGER
ASBESTOS DUST HAZARD
CANCER AND LUNG DISEASE HAZARD
Authorized Personnel Only

Notation
2.5 cm (1 inch) Sans Serif, Gothic or Block
2.5 cm (1 inch) Sans Serif, Gothic or Block
1.9 cm (3/4 inch) Sans Serif, Gothic or Block
14 Point Gothic

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

vi. Emissions control equipment shall be available for wetting and containing asbestos in the event of a release or non-conforming load disposal. All equipment required to implement the Plan shall be maintained in accordance with good engineering practices to ensure that the equipment is in a ready-to-use condition and in an appropriate location for use.

2.d NSPS WWW Collection System Requirements

The active collection system shall satisfy the following requirements, as specified in 40 CFR 60.752(b)(2)(ii)(A):

i. the system shall be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

ii. the system shall collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active, or 2 years or more if closed or at final grade;

iii. the system shall collect gas at a sufficient extraction rate; and

iv. the system shall be designed to minimize off-site migration of subsurface gas.

2.e NSPS WWW Flare Requirements

The collected gas shall be vented to an open flare designed and operated as follows:

i. the flare shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes, during any 2 consecutive hours;

ii. the flare shall be operated with a flame present at all times; and

2. Additional Terms and Conditions (continued)

iii. the permittee shall comply with either the requirements in paragraphs (a) and (b) or the requirements in paragraph (c) of this term and condition:

(a) Flares shall be used only with the net heating value of the gas being combusted being 11.2MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted, or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted shall be determined as follows or by utilizing methods approved by the Administrator in accordance with 40 CFR Part 60, Subpart WWW:

Ht = k x (the summation of Ci Hi for i=1 through i=n)

where:

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

k = constant, 1.740 x 10 to the minus seven degree (1/ppm)(g mole/scm) (MJ/kcal) where the standard temperature for (g mole/scm) is 20 degrees C;

Ci = concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77; and

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

(b) A steam-assisted and non-assisted flare shall be designed for and operated with an exit velocity of less than 18.3 m/sec. (60 ft/sec), except:

(i) steam-assisted and non-assisted flare shall be designed for and operated with an exit velocity of equal to or greater than 18.3 m/sec. (60 ft/sec), but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf); and

(ii) steam-assisted and non-assisted flare shall be designed for and operated with an exit velocity of less than the velocity, Vmax, and less than 122 m/sec (400 ft/sec) are allowed, as determined by

Log10 (Vmax) = (Ht + 28.8)/31.7

where:

Vmax = maximum permitted velocity, M/sec;

28.8 = constant;

31.7 = constant; and

Ht = the net heating value as determined in section A.I.2.e.iii.(a) above.

2. Additional Terms and Conditions (continued)

(c) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, Vmax, as determined by the following equation:

Vmax = (Xh2-K1)* K2

where:

Vmax = maximum permitted velocity, m/sec;

K1 = constant, 6.0 volume-percent hydrogen;

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

Xh2 = the volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77, or utilizing methods approved by the Administrator in accordance with 40 CFR Part 60, Subpart WWW.

iv. Air-assisted flare shall be designed for and operated with an exit velocity of less than the velocity, Vmax, as determined by the following equation:

Vmax = 8.706 + 0.7084 (Ht)

where:

Vmax = maximum permitted velocity, m/sec;

8.706 = constant;

0.7084 = constant; and

Ht = the net heating value as determined in section A.I.2.e.iii.(a) above.

2.f NSPS WWW Collection and Control System Requirements

The collection and control system may be capped or removed provided that all of the following conditions, as specified in 40 CFR 60.752(b)(2)(v), are met:

i. the landfill shall no longer be accepting solid waste and shall be permanently closed (pursuant to 40 CFR 258.60);

ii. the collection and control system shall have been in operation a minimum of 15 years; and

iii. the calculated NMOC gas produced by the landfill shall be less than 55 TPY on 3 successive test dates. The test dates shall be no less than 90 days apart and no more than 180 days apart.

II. Operational Restrictions

1. Operational Restrictions for Landfill Gas Operations

II. Operational Restrictions (continued)

1.a This facility shall meet the Standards for Air Emissions from municipal solid waste landfills in accordance with the Standards of Performance for Municipal Solid Waste Landfills, Section 60.752, as clarified, as follows:

i. paragraphs (b)(2), and (b)(2)(iii)(A) or (b)(2)(iii)(C), (b)(2)(iv), and (b)(2)(v) of 60.752 and subsections; and

ii. paragraph (b) of 60.752 except that:

(a) the permittee of the MSW landfill must meet paragraph (b)(2) and not (b)(1); and

(b) the permittee of the MSW landfill is not subject to the requirement to submit a collection and control system design plan detailed in paragraph (b)(2)(i) of 60.752.

1.b Whenever the flare is in operation, a temperature needed to ensure 98 weight-percent destruction of the NMOCs must be maintained and at least 530 SCFM of landfill gas must be fed to it.

1.c The collected gas shall be routed to a flare control system designed and operated to reduce NMOCs by 98 weight-percent, at maximum inlet concentration.

If the flare is operated in accordance with 40 CFR 60.18, then the NMOCs will be reduced by 98 weight-percent.

1.d The permittee shall operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for 5 years or more if active, or for 2 years or more if closed or at final grade.

1.e The permittee shall operate the collection system with negative pressure at each wellhead except under the following conditions:

i. a fire or increased well temperature (the permittee shall record instances when positive pressure occurs in efforts to avoid a fire);

ii. use of a geomembrane or synthetic cover (the permittee shall develop acceptable pressure limits in the design plan); and

iii. a decommissioned well. (A well may experience a static positive pressure after shutdown to accommodate for declining flows. All design changes shall be approved by the Director of Ohio EPA.)

1.f The permittee shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius and with either a nitrogen level less than 20% or an oxygen level less than 5%. The permittee may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

1.g The permittee shall operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill.

1.h The permittee shall operate the collection system such that all collected gases are vented to a control system designed and operated in compliance with section A.I.2.e unless the collected gas is routed to a treatment system that processes the collected gas for subsequent sale. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within one hour.

1.i The permittee shall operate the flare at all times when the collected gas is routed to the system.

1.j The flare shall have a system to continuously detect the presence of the flare's flame and shall have a system to automatically stop the flow of LFG to the flare if no flame is detected. The flare shall provide a means to automatically reignite itself at all times in the event its flame is extinguished.

2. Operational restrictions for the LFG operations required by the best available technology requirements of PTI 15-1244: this facility shall be limited to inputting to the flare less than or equal to 5,000 scf of landfill gas per minute and 2,628 million scf of landfill gas per year.

III. Monitoring and/or Record Keeping Requirements

1. For the active gas collection system, the permittee shall install a sampling port and a thermometer or other temperature measuring device at each wellhead or an access port for temperature measurements at each wellhead and record the following information on a monthly basis:

1.a the gauge pressure in the gas collection header at each individual well;

1.b the nitrogen or oxygen concentration in the landfill gas; and

1.c the temperature of the landfill gas.

2. The permittee shall monitor surface concentrations of methane on a quarterly basis as follows:

2.a Monitor surface concentrations of methane along the entire perimeter of the collection area and along a serpentine pattern spaced 30 meters apart (or a site-specific established spacing) for each collection area.

2.b The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

2.c Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of Appendix A of 40 CFR Part 60, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

2.d Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified below shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements listed in section A.II.1.g:

i. the location of each monitored exceedance shall be marked and the location recorded;

ii. cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be remonitored within 10 calendar days of detecting the exceedance;

iii. if the remonitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the remonitoring shows a third exceedance for the same location, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Ohio EPA for approval. No further monitoring of that location is required until the action specified has been taken; and

iv. Any location that initially showed an exceedance but has a methane concentration less than 500 parts per million methane above background at the 10-day remonitoring specified above shall be remonitored 1 month from the initial exceedance. If the 1-month remonitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified in the preceding paragraph shall be taken.

3. The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

3.a a heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame; and

3.b a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes.

4. If a gas flow rate measuring device is not installed, then the permittee shall secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

5. The permittee shall maintain the following information for the life of the control equipment as measured during the initial performance test or compliance demonstration:

III. Monitoring and/or Record Keeping Requirements (continued)

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

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

Qm = 2Lo x R x {(e to the power -kc) - (e to the power -kt)}
where,
Qm = maximum expected gas generation flow rate, cubic meters per year
Lo = methane generation potential, cubic meters per megagram solid waste
R = average annual acceptance rate, megagrams per year
k = methane generation rate constant, per year
t = age in years of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less (If the equipment is installed after closure, t is the age of the landfill at installation)
c = time since closure, years (for an active landfill c = 0 and (e to the power -kc) = 1)

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

Qm = Summation of 2kLoMi x (e to the power -kti for i=1 through i=n)
where,
Qm = maximum expected gas generation flow rate, cubic meters per year
k = methane generation rate constant, per year
Lo = methane generation potential, cubic meters per megagram solid waste
Mi = mass of solid waste in the i'th section, megagrams
ti = age of the i'th section, in years

iii. If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in paragraphs A.III.5.a.i. and ii. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate; so, calculations using the equations in paragraphs A.III.5.a.i. or ii or other methods approved by the Ohio EPA shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment. (The permittee may use another method to determine the maximum gas generation flow rate if the method has been approved by the Ohio EPA.);

5.b the density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR Part 60.759(a)(1);

5.c the flare type (i.e., steam-assisted, air-assisted, or non-assisted);

5.d all visible emission readings;

5.e heat content determinations of the gas;

5.f flow rate or bypass flow rate measurements;

5.g exit velocity determinations made during the performance test as specified in 40 CFR 60.18; and

5.h continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the flare pilot flame or flare flame is absent.

6. The permittee shall properly install, operate, and maintain a device to continuously monitor the flare flame when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals. The permittee shall record the following information each day:

6.a all periods during which there was no flare flame; and

6.b the downtime for the flare and monitoring equipment when the collection and control system was in operation.

7. The permittee shall maintain, for the life of the collection system, an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

III. Monitoring and/or Record Keeping Requirements (continued)

8. The permittee shall conduct surface testing around the perimeter of the collection area along a pattern that traverses the landfill at 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover.

9. NSPS Monitoring and Recordkeeping Requirements for Landfill Gas Operations

9.a This facility shall maintain monthly records of the amount of landfill gas, in scf, input to the flare, the amount of landfill gas, in scf, input to the treatment system that processes the gas for subsequent sale or use, and the number of hours that the flare was operated.

9.b This facility shall maintain monthly records of any malfunctions when unburned landfill gas was released from the flare.

The permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the above item. Off-site records may be maintained if they are retrievable within 4 hours. Either hardcopy or electronic formats are acceptable.

9.c The permittee shall monitor the operations in accordance with the Standards of Performance for Municipal Solid Waste Landfills (Standards), 40 CFR 60.756, as indicated in this term and condition:

i. For the active collection system, monitor as per paragraph (a), (a)(1), (a)(2), and (a)(3) of 40 CFR 60.756.

ii. For the open flare, monitor as per paragraph (c), (c)(1), (c)(2), and (c)(2)(i) of 40 CFR 60.756, and

The permittee shall operate and maintain a heat or flame sensing device and associated controller at the pilot light or flare to indicate the continuous presence of a flame. The heat or flame sensing device shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

If the heat or flame sensing device detects a no-flame condition and the flame cannot be restarted after 3 tries, the system shall automatically shut down the flow of landfill gas to the flare.

iii. For the surface methane operational standard, monitor as per 40 CFR 60.756(f).

9.d The permittee shall maintain records in accordance with 40 CFR 60.758:

i. The records required in paragraph (a) of 40 CFR 60.758, maximum design capacity, the current amount of solid waste in place, and the year-by-year waste acceptance rate shall be maintained as indicated in this Section. The permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the above items. Off-site records may be maintained if they are retrievable within 4 hours. Either hardcopy or electronic formats are acceptable. These records may also be required by the OEPA, Division of Solid and Infectious Waste Management, and shall satisfy this permit condition.

ii. The control equipment records as per paragraph (b) and paragraphs (b)(1) and (b)(4) of 40 CFR 60.758;

iii. The equipment operating parameters records as per paragraphs (c), (c)(2), and (c)(4) of 40 CFR 60.758;

iv. The collector records as per paragraphs (d), (d)(1), and (d)(2) of 40 CFR 60.758; and

v. The collection and control systems exceedance records required in paragraph (e) of 40 CFR 60.758.

9.e The required records for the initial performance test required by 40 CFR 60.8 are listed in 40 CFR 60.758(b)(4). The records required by 40 CFR 60.758(b)(4) shall be maintained by the permittee in accordance with 40 CFR 60.758(b).

III. Monitoring and/or Record Keeping Requirements (continued)

10. The flare shall be monitored to ensure that it is operated and maintained in conformance with its design. From the second calendar year of operation, this monitoring shall be performed at least one time per calendar year during the permit term and shall be performed before the end of the month of June. At a minimum, the monitoring shall consist of a landfill gas heat content determination(s), a landfill gas flow rate measurement(s), a flare exit velocity determination(s), and a visible emission determination.

The heat content determination of the landfill gas shall be determined using a LANDTEC GEM 500 or equivalent hand-held gas composition meter to determine the methane content in volume percent methane and the resulting methane content shall then be multiplied by the methane heat content, 10.1 BTUs per SCF per volume percent to derive the heat content of the landfill gas in BTU/SCF.

The landfill gas flow rate shall be determined using an independent flow measurement system with an accuracy of at least plus or minus 10% such as a LANDTEC GEM-500 with an appropriate flow measurement device. The flow rate shall be measured in the same time period as the methane content measurement required in the previous paragraph. All flow and other readings shall be taken under representative conditions that reflect routine operations at the full normal operating flow capacity of the system. For a manual flow rate measurement, two separate measurements shall be taken no more than 5 minutes apart, and averaged together for the recorded flow rate. For a continuous flow rate monitor, two separate readings shall be taken no more than five minutes apart, and averaged together for the recorded flow rate. All of the flow rate measurement system equipment shall be calibrated and maintained in accordance with the manufacturer's recommendation. The flow rate measurement system equipment shall have been recently calibrated no longer ago than one half the frequency interval recommended by the manufacturer, with the last calibration date and a calibration summary being recorded in the records described in the third following paragraph.

The flare exit velocity in feet/sec or meters/sec shall be determined by dividing the flow rate of the landfill gas determined in accord with the previous paragraph by the unobstructed cross-sectional area of the flare tip.

The visible emission determination shall be conducted in accord with Term and Condition A.V.1.ze.

Records of the monitoring shall be maintained for a minimum of five years. These records shall contain the records of the flare type (i.e., steam-assisted, air-assisted, or non-assisted), all visible emissions readings, the heat content and method of determination of the heat content, the landfill gas flowrate to the flare including the method of determination of the flowrate and equipment calibration information, and the flare exit velocity determination. The records specified in this term and condition are in addition to those required in 40 CFR 60.758(c).

11. Record Keeping Requirements for the Material Handling Operations for the Landfill Disposal of MSW

The permittee shall maintain the following:

11.a records of the dates that watering was performed prior to or during dumping operations of any bulky, or dry, or dusty materials, or materials likely to become airborne in order to minimize or eliminate visible emissions of fugitive dust;

11.b records of the dates that material was treated to prevent fugitive dust emissions from becoming airborne during periods of high wind speed; and

11.c records of any days that dusty materials to be stored prior to disposal were watered or covered with a temporary soil cover in order to minimize or eliminate visible emissions of fugitive dust.

IV. Reporting Requirements

1. 40 CFR Part 61, Subparts A & M (NESHAP) Reporting requirements for landfills which dispose of RACM

1.a The permittee shall submit quarterly reports summarizing the asbestos disposal activities. The reports shall contain the following information:

i. the name, address and location of the facility, the calendar period covered by the report and any changes in the methods of storage or the disposal operations; and

IV. Reporting Requirements (continued)

ii. a list of all asbestos-containing waste consignments received including: the date received, the name of the waste generator, the name and location of the facility where the load originated, the quantity of asbestos, and any discrepancy or non-conformity discovered.

These quarterly asbestos disposal activity reports shall be submitted not later than January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters, respectively.

1.b As soon as possible and no longer than 30 days after receipt of the waste, the permittee shall send a copy of the signed waste shipment record to the waste generator.

Upon discovering a discrepancy between the quantity of waste designated on a waste shipment record and the quantity actually received, the permittee shall attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, the permittee shall immediately report in writing to the state, local, district, or USEPA regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different than the above, the Canton City Health Department, Air Pollution Control Division. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.

1.c The permittee shall submit, upon closure of the facility, a copy of the records of the asbestos waste disposal locations and quantities.

1.d The permittee shall notify the Canton City Health Department, Air Pollution Control Division in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. The following information shall be included in the notice:

i. scheduled starting and completion dates;

ii. reason for disturbing the waste;

iii. procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated RACM (if deemed necessary, the Director may require changes in the proposed emission control procedures); and

iv. location of any temporary storage site and the final disposal site.

2. Best Available Technology Requirements for Landfills which Dispose of RACM

The permittee shall notify the Canton City Health Department, Air Pollution Control Divison of any load of asbestos-containing material which is rejected, or any non-conforming load disposed of in accordance with the "Asbestos Spill Contingency Plan." Notification shall be provided as soon as possible by a phone contact, followed in writing by the next working day. The written notification shall provide a copy of the waste shipment record ("WSR"), if available, or when waste is not shipped with a WSR, provide available information concerning vehicle identification, source of the load, a description of the load, nature of discrepancy, and the location of disposal. If possible, non-conforming loads of suspect friable material shall be detained, or the location of disposal protected from damage, until the Ohio EPA is informed and provided the opportunity to inspect.

3. Reporting Requirements for the Control Measure Performance of the Material Handling Operations for the Landfill Disposal of MSW

The permittee shall submit an annual report to the Canton City Health Department, Air Pollution Control Division, by January 31 of each year, covering the previous calendar year, containing all the dates that each control measure (required to be recorded in term and condition A.III.11.) was implemented.

4. Reporting Requirements for Landfill Gas Operations

IV. Reporting Requirements (continued)

4.a The permittee shall submit any and all reports in accordance with the Standards of Performance for Municipal Solid Waste Landfills, 40 CFR 60.757, except as indicated in this and the following term and condition.

The reports shall be submitted to:

The Ohio EPA, Division of Air Pollution Control, Authorization and Compliance Unit, Lazarus Government Center, P. O. Box 1049, Columbus, OH 43216-1049; and

The Canton City Health Department, Air Pollution Control Division, 420 Market Avenue North, Canton, OH 44702-1544 (copy).

4.b The following reports shall be submitted (if not already submitted):

i. The initial design capacity report required by 40 CFR 60.757(a) shall be submitted and shall contain the items required by 40 CFR 60.757 (a)(2)(i) and (ii).

ii. An amended design capacity report required by paragraph (a)(3) shall be submitted, if necessary;

iii. The closure report required by paragraph (d) shall be submitted within 30 days of waste acceptance cessation;

iv. An equipment removal report required by paragraph (e) shall be submitted 30 days prior to removal or cessation of operation of the control equipment;

v. Annual reports in accordance with 40 CFR 60.757 (f), including paragraphs (f)(1) through (f)(6) shall be submitted. The report shall be submitted each year by June 8 and shall cover the period from April first of the previous calendar year to March 31 of the current calendar year. This annual report is to document the performance of the active collection system with the required performance detailed in 40 CFR 60.752 (b)(2)(ii)(A);

vi. The collection and control system information required in 40 CFR 60.757 (g)(1) through (6) with the initial test report required under 40 CFR 60.8 shall be submitted;

vii. The initial NMOC emission rate report required by paragraph (b) of 40 CFR 60.757 shall be submitted; and

viii. This facility is not subject to submitting the collection and control system design plan in 40 CFR 60.752(b)(2)(i) and in 40 CFR 60.757(c) except that this facility shall submit a report certifying that the collection and control system either conforms with the specifications for active collection systems in 40 CFR 60.759 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to 40 CFR 60.759.

4.c The permittee shall submit the following information with the initial performance test report required pursuant to 40 CFR 60.8:

i. a diagram of the collection system showing collection system positioning, including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;

ii. the data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;

iii. the documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;

iv. the sum of the gas generation flow rate for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area;

v. the provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

IV. Reporting Requirements (continued)

vi. the provisions for the control of off-site migration.

4.d Any breakdown or malfunction of the landfill gas collection and control system resulting in the emission of raw landfill gas emissions to the atmosphere for more than 1 hour in duration shall be reported to the Canton local air agency within one hour after the occurrence, or as soon as reasonably possible, and immediate remedial measures shall be undertaken to correct the problem and prevent further emissions to the atmosphere, as indicated in OAC rule 3745-15-06.

4.e The permittee shall submit quarterly deviation (excursion) reports that identify any of the following occurrences:

i. any record which indicates that the gauge pressure in the gas collection header at each individual well was positive, unless the well was decommissioned;

ii. any record which indicates that the nitrogen or oxygen concentration in the landfill gas as measured at the wellhead at each individual well was greater than 20% (or a limit established in accordance with term and condition A.II.1.f.) or 5% (or a limit established in accordance with term and condition A.II.1.f.), respectively;

iii. any record which indicates that the temperature of the landfill gas as measured at the wellhead at each individual well was greater than 55 degrees Celsius (or a limit established in accordance with term and condition A.II.1.f.);

iv. any record which indicates that the surface concentration of methane was greater than 500 parts per million above background;

v. all periods during which LFG was passing through the flare and the flare flame was not lit (the reports shall include the date, time, and duration of each such period); and

vi. all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow or any record which indicates that the bypass line valve was not maintained in the closed position.

The deviation reports shall be submitted in accordance with the reporting requirements of General Term and Condition A.1.c.ii of this permit.

4.f The permittee shall submit annual reports which include the following:

i. all periods when the collection system was not operating in excess of 5 days; and

ii. any record indicating the date of installation and the location of each well or collection system expansion added pursuant to 40 CFR 60.755(a)(3), (b), and (c)(4).

These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

4.g The permittee shall submit an equipment removal report to the Canton City Health Department, Air Pollution Control Division 30 days prior to removal or cessation of operation of the control equipment. The equipment removal report shall contain the information specified in 40 CFR 60.757(e)(1). The Ohio EPA may request additional information as may be necessary to verify that all of the conditions for removal in 40 CFR 60.752(b)(2)(v) have been met.

4.h The permittee shall submit a closure report to the Canton Canton City Health Department, Air Pollution Control Division within 30 days of waste acceptance cessation. The Ohio EPA may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Ohio EPA, no additional wastes may be placed into the landfill without filing a notification of modification as described in 40 CFR 60.7(a)(4).

IV. Reporting Requirements (continued)

5. Best Available Technology Requirements for the Active Collection of LFG and Disposal of LFG with a Flare:

The permittee shall submit an annual report detailing the monitoring required in Term and Condition A.III.10. to ensure that the flare is operated and maintained in conformance with its design as per 40 CFR 60.18. The report shall be submitted to the addresses listed in term and condition A.IV.2.a. within 30 days of completion of this monitoring.

The report shall contain all of the data collected during the testing, the determined values for the net heating value of the landfill gas and the flare exit velocity, and the field data sheet from the visible emissions readings. The report shall also contain the measure that the permittee employed or plans to employ to bring the flare back into compliance with 40 CFR 60.18.

V. Testing Requirements

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Any bulk, dry, dusty materials shall be watered, as necessary, prior to or during dumping operations in order to minimize or eliminate visible emissions.

Applicable Compliance Method:
Compliance shall be met by performing the required control measures in accordance with section A.I.2.a and compliance shall be demonstrated by maintaining the records in accordance with section A.III.11.a and submitting the reports in accordance with section A.IV.5.

1.b Emission Limitation:
Any dusty material to be stored prior to disposal shall be watered, as necessary, or have a temporary soil cover in order to minimize or eliminate visible emissions.

Applicable Compliance Method:
Compliance shall be met by performing the required control measures in accordance with section A.I.1 and compliance shall be demonstrated by maintaining the records in accordance with section A.III.11.c and submitting the reports in accordance with section A.IV.5.

1.c Emission Limitation:
Use of reasonably available control measures, as defined in section A.I.2.a, to minimize or eliminate the emissions of fugitive dust.

Applicable Compliance Method:
Compliance shall be met by performing the required control measures in accordance with section A.I.2.a and compliance shall be demonstrated by maintaining the records in accordance with section A.III.11 and submitting the reports in accordance with section A.IV.5.

1.d Emission Limitation:
No visible emissions

Applicable Compliance Method:
Compliance shall be demonstrated through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 22.

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

Applicable Compliance Method:
Compliance shall be demonstrated through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 22.

V. Testing Requirements (continued)

1.f Emission Limitation:
50.01 lbs CO/hr

Applicable Compliance Method:

According to the PTI 15-1244 application, per AP-42, Supplement D, Table 11.5-1, Emission Factors for Flare Operations, the carbon monoxide emission factor is 0.37 lb/MMBtu. The maximum landfill gas flow rate to the flare is 5,000 SCFM. The landfill gas has heat capacity is 450 Btu/CF based on typical average landfill gas.

Calculated CO emissions = (5,000 SCFM) (450 Btu/CF) (MMBtu/1,000,000 BTU) (60 M/hr) (0.37 lb/MMBtu)

Calculated CO emissions = 50 lbs/hr

Because the calculated CO emissions is less than or equal to the allowable CO emissions compliance is shown.

If required, a stack test utilizing Method 10 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

1.g Emission Limitation:
219.03 TPY CO

Applicable Compliance Method:
Utilize the measured hourly CO emission rate from above and multiply by 8760 hours of operation/year and 1 ton/2000 pounds to obtain the yearly CO emissions in tons.

Compliance will be shown if the calculated maximum annual CO emissions are less than or equal to the allowable annual CO emissions (219.03 tons).

1.h Emission Limitation:
9.18 lbs NOx/hr

Applicable Compliance Method:
According to the PTI 15-1244 application, per AP-42, Supplement D, Table 11.5-1, Emission Factors for Flare Operations, the nitrogen oxides emission factor is 0.068 lb/MMBtu. The maximum landfill gas flow rate to the flare is 5,000 SCFM. The landfill gas has heat capacity is 450 Btu/CF based on typical average landfill gas.

Calculated NOx emissions = (5,000 SCFM) (450 Btu/CF) (MMBTU/1,000,000 Btu) (60 M/hr) (0.068 lb/MMBtu)

Calculated NOx emissions = 9.18 lbs/hr

Because the calculated NOx emissions is less than or equal to the allowable NOx emissions compliance is shown.

If required, a stack test utilizing Method 7 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

1.i Emission Limitation:
40.21 TPY NOx

Applicable Compliance Method:
Utilize the measured hourly NOx emission rate from above and multiply by 8760 hours of operation/year and 1 ton/2000 pounds to obtain the yearly NOx emissions in tons.

Compliance will be shown if the calculated maximum annual NOx emissions are less than or equal to the allowable annual NOx emissions (40.21 tons).

V. Testing Requirements (continued)

1.j Emission Limitation:
0.92 lb SO2/hr

Applicable Compliance Method:
According to the PTI 15-1244 application, 98% of the sulfur molecules in the landfill gas are oxidized to sulfur dioxide. The maximum landfill gas flow rate to the flare is 5,000 SCFM. Based on typical average landfill gas, there are 0.4972 lb/hr of hydrogen sulfide in the flow to the flare.

Calculated SO2 emissions = (0.4972 lb H2S/hr) (0.98) (1 mole H2S/34.08 lbs) (1 mole SO2/1 mole H2S) (64.06 lbs SO2/1 mole)

Calculated SO2 emissions = 0.92 lbs/hr

Because the calculated SO2 emissions are less than or equal to the allowable SO2 emissions, compliance is shown.

If required, a stack test utilizing Method 6 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

1.k Emission Limitation:
4.02 TPY SO2

Applicable Compliance Method:
Utilize the measured hourly SO2 emission rate from above and multiply by 8760 hours of operation/year and 1 ton/2000 pounds to obtain the yearly SO2 emissions in tons.

Compliance will be shown if the calculated maximum annual SO2 emissions are less than or equal to the allowable annual SO2 emissions (4.02 tons).

1.l Emission Limitation:
4.77 lbs HCl/hr

Applicable Compliance Method:
According to the PTI 15-1244 application, 98% of the chlorine molecules in the landfill gas are emitted as hydrogen chloride. The maximum landfill gas flow rate to the flare is 5,000 SCFM. Based on typical average landfill gas, chlorine molecules in the landfill gas from vinyl chloride, dichlorodifluoromethane, chlorobenzene, methylene chloride, 1,2 dichloroethane, carbon tetrachloride, tetrachloroethane, 1,1 dichloroethane, 1,1,2,2 tetrachloroethane, chloromethane, and chlorodifluoromethane are emitted as hydrogen chloride.

Performing similar stoichiometric calculations as from the hourly SO2 allowable compliance method from above for each of the chlorine containing compounds gives a calculated HCl emission rate of 4.77 lbs/hr.

Because the calculated HCl emissions are less than or equal to the allowable HCl emissions, compliance is shown.

If required, a stack test utilizing Method 26 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

1.m Emission Limitation:
20.91TPY HCl

Applicable Compliance Method:
Utilize the measured hourly HCl emission rate from above and multiply by 8760 hours of operation/year and 1 ton/2000 pounds to obtain the yearly HCl emissions in tons.

Compliance will be shown if the calculated maximum annual HCl emissions are less than or equal to the allowable annual HCl emissions (20.91 tons).

V. Testing Requirements (continued)

1.n Emission Limitation:
18.90 lbs CH4/hr

Applicable Compliance Method:
According to the PTI 15-1244 application, per AP-42, Supplement D, Table 11.5-1, Emission Factors for Flare Operations, the total hydrocarbons as methane emission factor is 0.14 lb/MMBtu. The maximum landfill gas flow rate to the flare is 5,000 SCFM. The landfill gas has heat capacity is 450 Btu/CF based on typical average landfill gas.

Calculated CH4 emissions = (5,000 SCFM) (450 Btu/CF) (MMBtu/1,000,000 BTU) (60 M/hr) (0.14 lb/MMBtu)

Calculated CH4 emissions = 18.9 lbs/hr

Because the calculated CH4 emissions are less than or equal to the allowable CH4 emissions, compliance is shown.

If required, a stack test utilizing an appropriate method from 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

1.o Emission Limitation:
82.78 TPY CH4

Applicable Compliance Method:
Utilize the measured hourly CH4 emission rate from above and multipy by 8760 hours of operation/year and 1 ton/2000 pounds to obtain the yearly CH4 emissions in tons.

Compliance will be shown if the calculated maximum annual CH4 emissions are less than or equal to the allowable annual CH4 emissions (82.78 tons).

1.p Emission Limitation:
0.98 TPY NMOC

Applicable Compliance Method:
The NMOC annual allowable is the sum of the annual allowables of benzene, toluene, vinyl chloride, dichlorodifluoromethane, chlorobenzene, methylene chloride, 1, 2 dichloroethane, carbon tetrachloride, tetrachloroethane, 1,1 dichloroethane, 1,1,2,2 tetrachloroethane, chloromethane, and chlorodifluoromethane. Provided compliance is shown with the individual annual allowables, compliance with the NMOC annual allowable will be shown.

If required, a stack test utilizing Method 25C or 18 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

V. Testing Requirements (continued)

1.q Emission Limitation:
0.04 TPY H2S

Applicable Compliance Method:
The permit application lists the concentration of the contaminant (in ppmv) in the inlet gas as 18.5 ppmv. The gas concentration and the selection of contaminants are based on typical average concentrations usually found in landfill gases. It is assumed that 98% of the S in the inlet gas is combusted to H2S. The flare is fed 5,000 SCFM of landfill gas (maximum). The ppmv is converted to lbs/hr by multiplying the ppmv by the molecular weight of the compound divided by 385.1 million. The molecular weight of H2S is 34 lbs/lb mole.

Calculated maximum TPY H2S = (18.5 ppmv H2S) (1.0 - 0.98) (34 lbs/lb mole) (1/385.1 million) (60 minutes/hour) (5,000 cubic feet/minute) (24 hours/day) (365 days/year) (ton H2S/2,000 lbs H2S)

Calculated maximum TPY H2S = 0.04 TPY H2S

Compliance will be shown if the calculated maximum annual H2S emissions are less than or equal to the allowable annual H2S emissions (0.04 ton).

If required, a stack test utilizing Method 15 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

1.r Emission Limitation:
0.02 TPY Benzene

Applicable Compliance Method:
The permit application lists the concentration of the contaminant (in ppmv) in the inlet gas as 3.64 ppmv. The gas concentration and the selection of contaminants are based on typical average concentrations usually found in landfill gases. It is assumed that 98% of the benzene in the inlet gas is combusted. The flare is fed 5,000 SCFM of landfill gas (maximum); ppmv is converted to lbs/hr by multiplying the ppmv by the molecular weight of the compound divided by 385.1 million. The molecular weight of benzene is 78.11 lbs/lb mole.

Calculated TPY Benzene = (3.64 ppmv benzene) (1.0 - 0.98) (78.11 lbs/lb mole) (1/385.1 million) (60 minutes/hour) (5,000 cubic feet/minute) (24 hours/day) (365 days/year) (ton benzene/2,000 lbs benzene)

Calculated TPY Benzene = 0.02 TPY Benzene

Compliance will be shown if the calculated maximum annual benzene emissions are less than or equal to the allowable annual benzene emissions (0.02 ton).

If required, a stack test utilizing Method 18 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

V. Testing Requirements (continued)

1.s Emission Limitation:
0.37 TPY Toluene

Applicable Compliance Method:
The permit application lists the concentration of the contaminant (in ppmv) in the inlet gas as 57.75 ppmv. The gas concentration and the selection of contaminants are based on typical average concentrations usually found in landfill gases. It is assumed that 98% of the toluene in the inlet gas is combusted. The flare is fed 5,000 SCFM of landfill gas (maximum); ppmv is converted to lbs/hr by multiplying the ppmv by the molecular weight of the compound divided by 385.1 million. The molecular weight of toluene is 92.13 lbs/lb mole.

Calculated TPY Toluene = (57.75 ppmv toluene) (1.0 - 0.98) (92.13 lbs/lb mole) (1/385.1 million) (60 minutes/hour) (5,000 cubic feet/minute) (24 hours/day) (365 days/year) (ton toluene/2,000 lbs toluene)

Calculated TPY Toluene = 0.36 TPY Toluene

Compliance will be shown if the calculated maximum annual toluene emissions are less than or equal to the allowable annual toluene emissions (0.37 ton).

If required, a stack test utilizing Method 18 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

1.t Emission Limitation:
0.02 TPY Chlorobenzene

Applicable Compliance Method:
The permit application lists the concentration of the contaminant (in ppmv) in the inlet gas as 2.02 ppmv. The gas concentration and the selection of contaminants are based on typical average concentrations usually found in landfill gases. It is assumed that 98% of the chlorobenzene in the inlet gas is combusted. The flare is fed 5,000 SCFM of landfill gas (maximum); ppmv is converted to lbs/hr by multiplying the ppmv by the molecular weight of the compound divided by 385.1 million. The molecular weight of chlorobenzene is 112.56 lbs/lb mole.

Calculated TPY Chlorobenzene = (2.02 ppmv chlorobenzene) (1.0 - 0.98) (112.56 lbs/lb mole) (1/385.1 million) (60 minutes/hour) (5,000 cubic feet/minute) (24 hours/day) (365 days/year) (ton chlorobenzene/2,000 lbs chlorobenzene)

Calculated TPY Chlorobenzene = 0.02 TPY Chlorobenzene

Compliance will be shown if the calculated maximum annual chlorobenzene emissions (0.02 ton) are less than or equal to the allowable annual chlorobenzene emissions (0.02 ton).

If required, a stack test utilizing Method 18 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

V. Testing Requirements (continued)

1.u Emission Limitation:
0.03 TPY Vinyl Chloride

Applicable Compliance Method:
The permit application lists the concentration of the contaminant (in ppmv) in the inlet gas as 7.72 ppmv. The gas concentration and the selection of contaminants are based on typical average concentrations usually found in landfill gases. It is assumed that 98% of the vinyl chloride in the inlet gas is combusted. The flare is fed 5,000 SCFM of landfill gas (maximum); ppmv is converted to lbs/hr by multiplying the ppmv by the molecular weight of the compound divided by 385.1 million. The molecular weight of vinyl chloride is 62.5 lbs/lb mole.

Calculated TPY Vinyl Chloride = (7.72 ppmv vinyl chloride) (1.0 - 0.98) (62.5 lbs/lb mole) (1/385.1 million) (60 minutes/hour) (5,000 cubic feet/minute) (24 hours/day) (365 days/year) (ton vinyl chloride/2,000 lbs vinyl chloride)

Calculated TPY Vinyl Chloride = 0.03 TPY Vinyl Chloride

Compliance will be shown if the calculated maximum annual vinyl chloride emissions are less than or equal to the allowable annual vinyl chloride emissions (0.03 ton).

If required, a stack test utilizing Method 18 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

1.v Emission Limitation:
0.14 TPY Dichlorodifluoromethane

Applicable Compliance Method:
The permit application lists the concentration of the contaminant (in ppmv) in the inlet gas as 16.44 ppmv. The gas concentration and the selection of contaminants are based on typical average concentrations usually found in landfill gases. It is assumed that 98% of the dichlorodifluoromethane in the inlet gas is combusted. The flare is fed 5,000 SCFM of landfill gas (maximum); ppmv is converted to lbs/hr by multiplying the ppmv by the molecular weight of the compound divided by 385.1 million. The molecular weights of dichlorodifluoromethane is 120.91 lbs/lb mole.

Calculated TPY Dichlorodifluoromethane = (16.44 ppmv dichlorodifluoromethane) (1.0 - 0.98) (120.91 lbs/lb mole) (1/385.1 million) (60 minutes/hour) (5,000 cubic feet/minute) (24 hours/day) (365 days/year) (ton dichlorodifluoromethane/2,000 lbs dichlorodifluoromethane)

Calculated TPY Dichlorodifluoromethane = 0.14 TPY Dichlorodifluoromethane

Compliance will be shown if the calculated maximum annual dichlorodifluoromethane emissions are less than or equal to the allowable annual dichlorodifluoromethane emissions (0.14 ton).

If required, a stack test utilizing Method 18 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

V. Testing Requirements (continued)

1.w Emission Limitation:
0.11 TPY Methylene Chloride

Applicable Compliance Method:
The permit application lists the concentration of the contaminant (in ppmv) in the inlet gas as 19.31 ppmv. The gas concentration and the selection of contaminants are based on typical average concentrations usually found in landfill gases. It is assumed that 98% of the methylene chloride in the inlet gas is combusted. The flare is fed 5,000 SCFM of landfill gas (maximum). The ppmv is converted to lbs/hr by multiplying the ppmv by the molecular weight of the compound divided by 385.1 million. The molecular weight of methylene chloride is 84.94 lbs/lb mole.

Calculated TPY Methylene Chloride = (19.31 ppmv methylene chloride) (1.0 - 0.98) (84.94 lbs/lb mole) (1/385.1 million) (60 minutes/hour) (5,000 cubic feet/minute) (24 hours/day) (365 days/year) (ton methylene chloride/2,000 lbs methylene chloride)

Calculated TPY Methylene Chloride = 0.11 TPY Methylene Chloride

Compliance will be shown if the calculated maximum annual methylene chloride emissions (0.11 ton) are less than or equal to the allowable annual methylene chloride emissions (0.11 ton).

If required, a stack test utilizing Method 18 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

1.x Emission Limitation:
0.05 TPY 1,2 Dichloroethane

Applicable Compliance Method:
The permit application lists the concentration of the contaminant (in ppmv) in the inlet gas as 6.9 ppmv. The gas concentration and the selection of contaminants are based on typical average concentrations usually found in landfill gases. It is assumed that 98% of the 1,2 dichloroethane in the inlet gas is combusted. The flare is fed 5,000 SCFM of landfill gas (maximum); ppmv is converted to lbs/hr by multiplying the ppmv by the molecular weight of the compound divided by 385.1 million. The molecular weight of 1,2 dichloroethane is 98.97 lbs/lb mole.

Calculated TPY 1,2 Dichloroethane = (6.9 ppmv 1,2 dichloroethane) (1.0 - 0.98) (98.97 lbs/lb mole) (1/385.1 million) (60 minutes/hour) (5,000 cubic feet/minute) (24 hours/day) (365 days/year) (ton 1,2 dichloroethane/2,000 lbs 1,2 dichloroethane)

Calculated TPY 1,2 Dichloroethane = 0.05 TPY 1,2 Dichloroethane

Compliance will be shown if the calculated maximum annual 1,2 dichloroethane emissions (0.05 ton) are less than or equal to the allowable annual 1,2 dichloroethane emissions (0.05 ton).

If required, a stack test utilizing Method 18 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

V. Testing Requirements (continued)

1.y Emission Limitation:
0.07 TPY Carbon Tetrachloride

Applicable Compliance Method:
The permit application lists the concentration of the contaminant (in ppmv) in the inlet gas as 6.22 ppmv. The gas concentration and the selection of contaminants are based on typical average concentrations usually found in landfill gases. It is assumed that 98% of the carbon tetrachloride in the inlet gas is combusted. The flare is fed 5,000 SCFM of landfill gas (maximum); ppmv is converted to lbs/hr by multiplying the ppmv by the molecular weight of the compound divided by 385.1 million. The molecular weight of carbon tetrachloride is 153.82 lbs/lb mole.

Calculated TPY Carbon Tetrachloride = (6.22 ppmv carbon tetrachloride) (1.0 - 0.98) (153.82 lbs/lb mole) (1/385.1 million) (60 minutes/hour) (5,000 cubic feet/minute) (24 hours/day) (365 days/year) (ton carbon tetrachloride/2,000 lbs carbon tetrachloride)

Calculated TPY Carbon Tetrachloride = 0.07 TPY Carbon Tetrachloride

Compliance will be shown if the calculated maximum annual carbon tetrachloride emissions (0.07 ton) are less than or equal to the allowable annual carbon tetrachloride emissions (0.07 ton).

If required, a stack test utilizing Method 18 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

1.z Emission Limitation:
0.10 TPY Tetrachloroethane

Applicable Compliance Method:
The permit application lists the concentration of the contaminant (in ppmv) in the inlet gas as 8.29 ppmv. The gas concentration and the selection of contaminants are based on typical average concentrations usually found in landfill gases. It is assumed that 98% of the tetrachloroethane in the inlet gas is combusted. The flare is fed 5,000 SCFM of landfill gas (maximum); ppmv is converted to lbs/hr by multiplying the ppmv by the molecular weight of the compound divided by 385.1 million. The molecular weight of tetrachloroethane is 165.83 lbs/lb mole.

Calculated TPY Tetrachloroethane = (8.29 ppmv tetrachloroethane) (1.0 - 0.98) (165.83 lbs/lb mole) (1/385.1 million) (60 minutes/hour) (5,000 cubic feet/minute) (24 hours/day) (365 days/year) (ton tetrachloroethane/2,000 lbs tetrachloroethane)

Calculated TPY Tetrachloroethane = 0.09 TPY Tetrachloroethane

Compliance will be shown if the calculated maximum annual tetrachloroethane emissions (0.09 ton) are less than or equal to the allowable annual tetrachloroethane emissions (0.10 ton).

If required, a stack test utilizing Method 18 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

V. Testing Requirements (continued)

1.za Emission Limitation:
0.03 TPY 1,1 Dichloroethane

Applicable Compliance Method:
The permit application lists the concentration of the contaminant (in ppmv) in the inlet gas as 4.24 ppmv. The gas concentration and the selection of contaminants are based on typical average concentrations usually found in landfill gases. It is assumed that 98% of the 1,1 dichloroethane in the inlet gas is combusted. The flare is fed 5,000 SCFM of landfill gas (maximum); ppmv is converted to lbs/hr by multiplying the ppmv by the molecular weight of the compound divided by 385.1 million. The molecular weight of 1,1 dichloroethaneis 96.96 lbs/lb mole.

Calculated TPY 1,1 Dichloroethane = (4.24 ppmv 1,1 dichloroethane) (1.0 - 0.98) (96.96 lbs/lb mole) (1/385.1 million) (60 minutes/hour) (5,000 cubic feet/minute) (24 hours/day) (365 days/year) (ton 1,1 dichloroethane/2,000 lbs 1,1 dichloroethane)

Calculated TPY 1,1 Dichloroethane = 0.03 TPY 1,1 Dichloroethane

Compliance will be shown if the calculated maximum annual 1,1 dichloroethane emissions (0.03 ton) are less than or equal to the allowable annual 1,1 dichloroethane emissions (0.03 ton).

If required, a stack test utilizing Method 18 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

1.zb Emission Limitation:
0.01 TPY 1,1,2,2, Tetrachloroethane

Applicable Compliance Method:
The permit application lists the concentration of the contaminant (in ppmv) in the inlet gas as 6.22 ppmv. The gas concentration and the selection of contaminants are based on typical average concentrations usually found in landfill gases. It is assumed that 98% of the 1,1,2,2, tetrachloroethane in the inlet gas is combusted. The flare is fed 5,000 SCFM of landfill gas (maximum); ppmv is converted to lbs/hr by multiplying the ppmv by the molecular weight of the compound divided by 385.1 million. The molecular weight of 1,1,2,2, tetrachloroethane is 153.82 lbs/lb mole.

Calculated TPY 1,1,2,2, Tetrachloroethane = (6.22 ppmv 1,1,2,2, tetrachloroethane) (1.0 - 0.98) (153.82 lbs/lb mole) (1/385.1 million) (60 minutes/hour) (5,000 cubic feet/minute) (24 hours/day) (365 days/year) (ton 1,1,2,2, tetrachloroethane/2,000 lbs 1,1,2,2, tetrachloroethane)

Calculated TPY 1,1,2,2, Tetrachloroethane = 0.007 TPY 1,1,2,2, Tetrachloroethane

Compliance will be shown if the calculated maximum annual 1,1,2,2, tetrachloroethane emissions (0.007 ton) are less than or equal to the allowable annual 1,1,2,2, tetrachloroethane emissions (0.01 ton).

If required, a stack test utilizing Method 18 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

V. Testing Requirements (continued)

1.zc Emission Limitation:
0.01 TPY Chloromethane

Applicable Compliance Method:
The permit application lists the concentration of the contaminant (in ppmv) in the inlet gas as 3.72 ppmv. The gas concentration and the selection of contaminants are based on typical average concentrations usually found in landfill gases. It is assumed that 98% of the chloromethane in the inlet gas is combusted. The flare is fed 5,000 SCFM of landfill gas (maximum); ppmv is converted to lbs/hr by multiplying the ppmv by the molecular weight of the compound divided by 385.1 million. The molecular weight of chloromethane is 50.49 lbs/lb mole.

Calculated TPY Chloromethane = (3.72 ppmv chloromethane) (1.0 - 0.98) (50.49 lbs/lb mole) (1/385.1 million) (60 minutes/hour) (5,000 cubic feet/minute) (24 hours/day) (365 days/year) (ton chloromethane/2,000 lbs chloromethane)

Calculated TPY Chloromethane = 0.01 TPY Chloromethane

Compliance will be shown if the calculated maximum annual chloromethane emissions (0.01 ton) are less than or equal to the allowable annual chloromethane emissions (0.01 ton).

If required, a stack test utilizing Method 18 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

1.zd Emission Limitation:
0.02 TPY Chlorodifluoromethane

Applicable Compliance Method:
The permit application lists the concentration of the contaminant (in ppmv) in the inlet gas as 2.81 ppmv. The gas concentration and the selection of contaminants are based on typical average concentrations usually found in landfill gases. It is assumed that 98% of the chlorodifluoromethane in the inlet gas is combusted. The flare is fed 5,000 SCFM of landfill gas (maximum); ppmv is converted to lbs/hr by multiplying the ppmv by the molecular weight of the compound divided by 385.1 million. The molecular weight of chlorodifluoromethane is 86.47 lbs/lb mole.

Calculated TPY Chlorodifluoromethane = (2.81 ppmv chlorodifluoromethane) (1.0 - 0.98) (86.47 lbs/lb mole) (1/385.1 million) (60 minutes/hour) (5,000 cubic feet/minute) (24 hours/day) (365 days/year) (ton chlorodifluoromethane/2000 lbs chlorodifluoromethane)

Calculated TPY Chlorodifluoromethane = 0.02 TPY Chlorodifluoromethane

Compliance will be shown if the calculated maximum annual chlorodifluoromethane emissions are less than or equal to the allowable annual chlorodifluoromethane emissions (0.02 ton).

If required, a stack test utilizing Method 18 of 40 CFR Part 60, Appendix A, may be requested to confirm the emission rate.

1.ze Emission Limitation:
No visible emissions from the flare, except for periods not to exceed a total of 5 minutes, during any 2 consecutive hours.

Applicable Compliance Method:
Compliance shall be demonstrated through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 22, and procedures specified in 40 CFR Part 60.18.

1.zf The nitrogen level shall be determined using Method 3C of 40 CFR Part 60, Appendix A, unless an alternative test method is established as allowed by 40 CFR Part 60.752(b)(2)(i).

1.zg The oxygen level shall be determined (1) by an oxygen meter using Method 3A of 40 CFR Part 60, Appendix A, or, (2) by a CES-LANDTEC Gas Extraction Monitor using Method 3A of 40 CFR Part 60, Appendix A, unless an alternative test method is established as allowed by 40 CFR Part 60.752(b)(2)(i), except that:

V. Testing Requirements (continued)

i. the span shall be set so that the regulatory limit is between 20 and 50% of the span:

ii. a data recorder is not required;

iii. only two calibration gases are required, a zero and span, and ambient air may be used as the span;

iv. a calibration error check is not required; and

v. the allowable sample bias, zero drift, and calibration drift are plus or minus 10%.

2. The permittee shall conduct or have conducted, within 90 days after the installation of the collection and control system, an initial performance test to demonstrate that the flare can operate in conformance with the requirements specified in 40 CFR Part 60.18. The net heating value of the gas being combusted in the flare and the actual exit velocity of the flare shall be determined in accordance with the procedures and methods specified in 40 CFR Part 60.18. The visible emission evaluation shall be conducted in accordance with the procedures specified in section A.V.1.ze. Note that this test has already been conducted.

3. After the installation of a collection and control system in compliance with 40 CFR Part 60.755, the permittee shall calculate the NMOC emission rate for the purposes of determining when the system can be removed as provided in 40 CFR Part 60.752(b)(2)(v) in accordance with the equation and procedures specified in 40 CFR Part 60.754(b), (b)(1), and (b)(2). The permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Ohio EPA as provided in 40 CFR Part 60.752(b)(2)(i)(B).

VI. Miscellaneous Requirements

1. The equipment associated with the LFG operations shall be operated and maintained by personnel properly trained in its operation.

2. The utility flare shall be designed, installed, and operated in accordance with the Standards of Performance for Municipal Solid Waste Landfills, 40 CFR 60.750 to 60.759 as indicated in the Additional Special Terms and Conditions of PTI 15-1244, in accordance with 40 CFR 60.18 (b) to (f), in accordance with the PTI 15-1244 application, and in accordance with the Title V application.

3. Design, construction, and siting of the gas extraction wells and collection system shall be in accordance with the PTI 15-1244 application, the Standards of Performance for Municipal Solid Waste Landfills, 40 CFR 60.750 to 60.759 as indicated in the additional special terms and conditions of PTI 15-1244, standard industry methods and practices currently in use, and in accordance with the Title V application.

4. The permittee of this facility shall operate this facility in such a manner that it does not become offensive or objectionable to the public in violation of OAC rule 3745-15-07.

5. The permittee of this facility shall not install any air contaminant source including a landfill gas-fired boiler or generator, without first obtaining a permit to install from the Ohio EPA.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Soil/Aggregate stockpiles (F004)

Activity Description: Fugitive dust from soil/aggregate stockpiles

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
storage piles (see section A.I.2.a for identification of storage piles)	OAC rules 3745-17-08(B) and 3745-17-07(B)	See A.I.2.a.
	OAC rule 3745-31-05 PTI 15-991 issued 02/18/93	5.0 lbs/hr PM 21.8 TPY PM
load-in and load-out of storage piles (see section A.I.2.a for identification of storage piles)	OAC rules 3745-17-08(B) and 3745-17-07(B)	See A.I.2.a.
	OAC rule 3745-31-05 PTI 15-991 issued 02/18/93	no visible emissions except for one minute during any 60-minute period best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see sections A.I.2.c, A.I.2.d and A.I.2.g)
wind erosion from storage piles (see section A.I.2.a for identification of storage piles)	OAC rules 3745-17-08(B) and 3745-17-07(B)	See A.I.2.a.
	OAC rule 3745-31-05 PTI 15-991 issued 02/18/93	no visible emissions except for one minute during any 60-minute period best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see sections A.I.2.e through A.I.2.g)

2. Additional Terms and Conditions

2.a There are no applicable emission limitations/control measures from OAC rules 3745-17-08(B) and 3745-17-07(B) because the facility is not located in an Appendix A area as specified in OAC rule 3745-17-08.

2. Additional Terms and Conditions (continued)

2.b The storage piles that are covered by this permit and subject to the requirements of OAC rule 3745-31-05 are listed below:

soil/aggregate stockpiles used in support of landfill development and operations, and stockpiled materials from mobile aggregate processing system.

2.c 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 permit application, the permittee has committed to minimizing drop heights during the unloading of trucks and during the load in and load out of the storage piles, watering of dusty materials, either prior to dumping or during dumping, use of a continuous mobile conveyor/stacker for some load-in operations, with watering, and good operating practices to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.d 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) is (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 (are) unnecessary.

2.e 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 permittee's permit application, the permittee has committed to the maintenance of as low a storage pile height as possible, and watering, as necessary, to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.f 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) is (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.g 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.

II. Operational Restrictions

1. The permittee shall not place more than 1.1 million tons of soil/aggregate materials into storage piles per year.

III. Monitoring and/or Record Keeping 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: all storage piles
minimum load-in inspection frequency: daily, unless no load-in operations take place on a particular day

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: all storage piles
minimum load-out inspection frequency: daily, unless no load-out operations take place on a particular day

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: all storage piles
minimum wind erosion inspection frequency: daily

III. Monitoring and/or Record Keeping Requirements (continued)

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 may, upon receipt of written approval from the Canton local air agency, 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.

7. The permittee shall maintain records of the following information:

7.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;

7.b the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;

7.c the dates the control measures were implemented; and

7.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 7.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.

8. The permittee shall maintain monthly records that document the total weight of all soil/aggregate materials placed into the storage piles.

IV. Reporting Requirements

1. The permittee shall submit an annual weight of soil/aggregate material report by January 31 of each year, covering the previous calendar year, which contains the weight, in tons, of soil/aggregate material placed into storage piles.

2. The permittee shall submit quarterly deviation reports that identify any of the following occurrences:

2.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

2.b each instance when a control measure that was to be implemented as a result of an inspection was not implemented.

3. The deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

V. Testing Requirements

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitation:
21.8 TPY PM

Applicable Compliance Method:
Calculate the drop operations (load-in) emissions using predictive equations. Calculate the wind erosion emissions using an emission factor.

Calculate the drop operations particulate matter emissions using equation #1 on page 13.2.4-3 of the Fifth Edition of AP-42 (rating B). The equation estimates total particulate emissions for both batch drop and continuous drop operations.

Drop Operations Emissions: Assume average silt content is 14% and moisture content averages 10%.

AP-42 gives the emission factor as E = k (0.0032) ((U/5) to the 1.3 power)) / ((M/2) to the 1.4 power)

E = Emission factor (lb PM emitted/ton of aggregate stockpiled)
k = Particle size multiplier (0.74 for < or = 30 um)
U = Mean wind speed (9.9 mph)
M = Material moisture content (10%)

E = 0.00060 lb PM/ton stockpiled

Annual Continuous Drop PM Emissions:
The allowable number of tons of MSW disposed per year = 1.1 million tons.

Annual Continuous Drop PM Emissions = (0.00060 lb PM/ton stockpiled) (1 ton/2000 lbs) (1.1 million tons stockpiled/year)

Annual Continuous Drop PM Emissions = 0.33 TPY

Wind Erosion Emissions:
Calculate the wind erosion particulate matter emissions using the emission factor, 3.5 lbs PM emitted per acre per day, from the 1992 AWMA "Air Pollution Engineering Manual" Anthony J. Buonicore and Wayne T. Davis, Table 1, page 779, for sand and gravel processing plants.

The allowable number of tons of MSW disposed per year = 1.1 million tons and the maximum area of the storage piles is assumed to be 3 acres.

Annual Wind Erosion PM Emissions = (3.5 lb PM emitted/acre/day) (1 ton/2000 lbs) (1.1 million tons stockpiled/year)

Annual Wind Erosion PM Emissions = 1.9 TPY PM

Total Annual PM Emissions = Total Annual Drop Operations PM Emissions + Total Annual Wind Erosion PM Emissions

Total Annual PM Emissions = 0.33 + 1.9 tons = 2.2 tons

Compliance is shown because the maximum total annual PM emissions (2.2 tons) is less than or equal to the allowable annual PM emissions (21.8 tons).

V. Testing Requirements (continued)

1.b Emission Limitation:
5.0 lbs PM per hour

Applicable Compliance Method:
Multiply the "Total annual PM emissions from soil stockpiles" calculated in A.V.1.a above by (2,000 lbs/ton) (1 year/365 days) (1 day/24 hours) to obtain the calculated PM emissions per hour.

Total hourly PM Emissions = 0.50 lb

Compliance is shown because the maximum total hourly PM emissions (0.50 lb) is less than or equal to the allowable hourly annual PM emissions (5.0 lbs).

1.c Emission Limitation:
No visible emissions except for one minute in any hour.

Applicable Compliance Method:
Utilize 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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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