State of Ohio Environmental Protection Agency

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

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

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

05/13/99

CERTIFIED MAIL

RE: Final Title V Chapter 3745-77 permit

16-77-01-0976
Hardy Road Sanitary Landfill
Jack Hulligan
1585 Hardy Road
Akron, OH 44313

Dear Jack Hulligan:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully.

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. It is also requested by the Director that a copy of the appeal be served upon the Environmental Enforcement Section of the Office of the Attorney General. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street
Room 300
Columbus, Ohio 43215

If you have any questions, please contact Akron Air Pollution Control.

Very truly yours,

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

cc: Akron Air Pollution Control
Becky Castle, DAPC PMU

Ohio EPA
State of Ohio Environmental Protection Agency

TITLE V PERMIT

Issue Date: 05/13/99

FINAL ISSUANCE

Effective Date: 05/13/99

Expiration Date: 05/13/04

This document constitutes issuance to:

Hardy Road Sanitary Landfill
1585 Hardy Road
Akron, OH 44313

of a Title V permit for Facility ID: 16-77-01-0976

Emissions Unit ID (Company ID)/
Emissions Unit Activity Description:
F001 (Landfill Operations)
Release of fugitive dust from landfill operations.

F002 (Roadways/Parking)
Release of fugitive dust from roadways and parking areas.

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

Akron Air Pollution Control
146 South High Street, Room 904
Akron, OH 44308
(330) 375-2480

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 emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be 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 monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. 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.

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 emission units are located at this facility:

G001 - diesel dispensing unit

Each 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 operation to be conducted at this location without prior approval of the Ohio EPA. This excludes recycling or energy recovery, unless Ohio EPA approval is needed.

4. The permittee 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. If an odor resulting from construction activities is detected at the property line, the permittee shall institute all available mitigation measures. Odor mitigation measures deemed appropriate by the Director to protect the comfort, repose, health or safety of the public shall be implemented upon request.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Landfill Operations (F001)

Activity Description: Release of fugitive dust from landfill operations.

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
existing MSW landfill, gas collection and control system	OAC rule 3745-17-07	See A.I.2.a below.
	OAC rule 3745-21-08	See A.I.2.b below.
	40 CFR Part 60, Subpart WWW	methane concentration from the collection system shall be less than 500 parts per million above background at the surface of the landfill utility flare shall be designed and operated in accordance with 40 CFR 60.18 (see sections A.II.1, A.II.3, and A.II.7) no visible emissions from the flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours
load-in of landfill cell (see section A.I.2.h for identification of landfill cell)	OAC rule 3745-17-07(B)	20% opacity as a 3-minute average
	OAC rule 3745-17-08(B), (B)(6)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see sections A.I.2.e, A.I.2.f, and A.I.2.j)
operation of vehicles on top of landfill cell, excluding emissions from the combustion of fuels in such vehicles (i.e., surface working)	OAC rule 3745-17-07(B)	20% opacity as a 3-minute average
	OAC rule 3745-17-08(B), (B)(6)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see sections A.I.2.g, A.I.2.i, and A.I.2.j)

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
wind erosion from landfill cell	OAC rule 3745-17-07(B)	20% opacity as a 3-minute average
	OAC rule 3745-17-08(B), (B)(6)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see sections A.I.2.h through A.I.2.j)

2. Additional Terms and Conditions

2.a The emission limit based on this applicable rule is less stringent than the limit established pursuant to 40 CFR Part 60, Subpart WWW.

2.b The permittee shall minimize the carbon monoxide emissions from this emissions unit's control device by the use of the best available control techniques and operating practices in accordance with best current technology.

2.c All collected landfill gas shall be routed to an open flare control system designed and operated to reduce NMOCs by 98 weight-percent, at maximum inlet concentration.

2.d The landfill cell that is covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 is listed below:

Hardy Road Cell

2.e The permittee shall employ reasonably available control measures on all cell load-in operations associated with the landfill cell for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the cell load-in operations with water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.f The above-mentioned control measures shall be employed for each cell load-in operation of the landfill cell if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during any such operation until further observation confirms that use of the measures is unnecessary.

2.g The permittee shall employ reasonably available control measures on all surface working operations associated with the landfill cell for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the surface working operations with water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.h The permittee shall employ reasonably available control measures for wind erosion from surfaces associated with the landfill cell for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the landfill surface with water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.i The above-mentioned control measures shall be employed for surface operations and wind erosion from the landfill cell if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measures shall not be necessary for the landfill cell 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. Additional Terms and Conditions (continued)

2.j 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 3745-17-08.

II. Operational Restrictions

1. The nonassisted open flare shall have a net heating value of the gas being combusted of 7.45 MJ/scm (200 Btu/scf) or greater.

2. The maximum daily quantity of landfill gas burned in the open flare system shall not exceed 1,455 scfm (2,095,200 scf/day).

3. If the heat sensing device detects a no flame condition which cannot be immediately restarted, the system shall automatically shut down the flow of landfill gas.

4. All recording devices shall be synchronized based on the time of day.

5. The open flare and landfill gas collection system shall be operated and maintained by personnel properly trained in its operation.

6. The gas collection system shall be operated at negative pressure to ensure that all collected landfill gas is directed to the flare station as required by section A.I.2.c above.

7. The nonassisted open flare shall be designed and operated with an exit velocity of less than 18.3 m/sec (60 ft/sec).

8. The permittee shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The permittee may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens. The nitrogen and oxygen levels shall be determined using USEPA Method 3C and Method 3A, respectively. The permittee shall install a sampling port and thermometer or other temperature measuring device at each wellhead.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall, on a monthly basis, monitor and record the following information for each wellhead:

a. the gauge pressure in the gas collection header;

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

c. the temperature of the landfill gas.

2. The permittee shall operate and maintain a heat sensing device, such as an ultraviolet beam sensor or thermocouple at the pilot light to indicate the continuous presense of a flame. The heat sensing device shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall record all periods of time during which a flame is not present.

3. The permittee shall operate and maintain a continuous gas flow monitor and recorder which measures and records the gas flow to the control device at least every 15 minutes. The gas flow monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall record, on a daily basis, the total volume of landfill gas burned in the flare system.

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

4. The permittee shall, on a daily basis, visually inspect the flare during operation and record whether or not any visible emissions are present.

[NOTE: The permittee is not required to use USEPA Method 9 or Method 22 for these inspections.]

5. Except as otherwise provided in this section, the permittee shall perform inspections of each cell load-in operation at the Hardy Road landfill cell on a daily basis.

6. Except as otherwise provided in this section, the permittee shall perform inspections of the surface working operation associated with the Hardy Road landfill cell on a daily basis.

7. Except as otherwise provided in this section, the permittee shall perform inspections of the wind erosion from the cell surface of the Hardy Road landfill cell on a daily basis.

8. No inspection shall be necessary for wind erosion from the surface of the cell when the cell is covered with snow and/or ice and for any landfill cell 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.

9. The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for cell load-in of the landfill cell, surface working operations, and wind erosion from the surface of the landfill cell. The inspections shall be performed during representative, normal landfill cell operating conditions.

10. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or 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. Such modified inspection frequencies would not be considered a minor or significant modification that would be subject to the Title V permit modification requirements in paragraphs (C)(1) and (C)(3) of OAC rule 3745-77-08.

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

a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;

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

c. the dates the control measures were implemented; and

d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

[NOTE: These daily inspections are for fugitive dust control and are not part of the landfill gas control measures.]

12. The information required in section A.III.11.d shall be kept separately for (i) the cell load-in operations, (ii) the surface working operations, and (iii) the cell surface (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

13. The permittee shall conduct quarterly 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. The permittee may establish an alternative traversing pattern that ensures equivalent coverage.

14. The following procedures shall be used for compliance with the surface methane operational standard:

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

14.a The permittee shall 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, on a quarterly basis, using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in section A.III.15.

14.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.

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

14.d Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the following actions shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the allowable mass emissions limitation.

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

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

iii. If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in section A.III.14.d.v. shall be taken, and no further monitoring of that location shall be taken until such action has been taken.

iv. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm above background at the 10-day remonitoring shall be re-monitored 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 is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified in section A.III.14.d.iii or v shall be taken.

v. For any location where the monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.

14.e The permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

15. The permittee shall comply with the following instrumentation specifications and procedures for surface monitoring devices:

a. the portable analyzer shall meet the instrument specifications provided in 40 CFR Part 60, Appendix A, Method 21, section 3, except that "methane" shall replace all references to VOC;

b. the calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air;

c. to meet the performance evaluation required in 40 CFR Part 60, Appendix A, Method 21, section 3.1.3, the instrument evaluation procedures of 40 CFR Part 60, Appendix A, Method 21, section 4.4 shall be used; and

d. the calibration procedures provided in 40 CFR Part 60, Appendix A, Method 21, section 4.2 shall be followed immediately before commencing a surface monitoring survey.

16. The provisions of the surface monitoring requirements apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

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

17. The permittee shall maintain, on site, documentation of the net heating value of gas being combusted in the flare. This information shall be calculated in accordance with the following methodology:

Ht = K * Summation(Ci * Hi)

where

Ht = net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas 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^-7 (1/ppm)(g mole/scm)(KJ/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 by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 (Incorporated by reference as specified in 40 CFR 60.17); and

Hi = net heat of combustion of sample component i, kcal/g mole at 25 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.

[NOTE: This information only needs to be compiled once and does not need to be recalculated unless there is a change in the design or operation of the flare.]

18. Drawings of the landfill gas collection system, as built, shall be maintained on site. The drawings shall include locations of wells and trenches, well depths, pipe lengths, diameters, condensate traps, layout of the system and other relevant information.

19. The permittee shall maintain, on site, documentation of the actual exit velocity of the flare. This value shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

[NOTE: This information only needs to be compiled once and does not need to be recalculated unless there is a change in the design or operation of the flare.]

IV. Reporting Requirements

1. Any breakdown or malfunction of the landfill gas flare resulting in the emission of raw landfill gas shall be reported to the Ohio EPA within one hour after the occurrence, or as soon as reasonably possible, in accordance with the requirements specified in Part I - General Term and Condition A.2, and immediate remedial measures shall be undertaken to correct the problem and prevent further emission to the atmosphere.

2. In the event of a potential emergency, such as a fire within the landfill, wells affected may be temporarily shut off, which could result in a positive gauge pressure. The Ohio EPA field office shall be notified within one working day of any shut downs of any wells.

3. The permittee shall submit semi-annual reports which include an identification of any daily record showing that visible emissions from the flare were present. The reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6 calendar months.

4. The permittee shall submit deviation (excursion) reports which include the following information:

a. an identification of each period during which the flame sensor indicated that a flame was not present; and

b. an identification of each day during which the total volume of landfill gas burned by the flare exceeded 1,455 scfm (2,095,200 scf/day), and the actual total volume of landfill gas burned for each such day.

IV. Reporting Requirements (continued)

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

a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and

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

6. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

7. The permittee shall develop and submit a surface monitoring design plan that includes a topographical map with the monitoring route and rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

8. The permittee shall submit annual reports which include the following information:

a. an identification of each month during which the gauge pressure in the gas collection wells gave a positive pressure reading and the actual gauge pressure reading for each such month;

b. an identification of each month during which the landfill gas temperature reading was 55 degrees C or higher and the actual landfill gas temperature reading for each such month;

c. an identification of each month during which the nitrogen or oxygen concentration level in the landfill gas was equal to or higher than 20 percent or 5 percent, respectively;

d. an identification of all periods when the gas stream was diverted from the control device through a bypass line or any indication of bypass flow;

e. an identification of all periods when the control device was not operating for a period exceeding 1 hour and the length of time the control device was not operating;

f. an identification of all periods during which the collection system was not operating in excess of 5 days;

g. the location of each exceedance of the 500 parts per million methane concentration and the concentration recorded at each location for which an exceedance was recorded in the previous month; and

h. the date of installation and location of each well or collection system expansion added as a result of the surface monitoring requirements.

The reports shall be submitted by August 23rd of each year and shall cover the previous year.

V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a 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:

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), (B)(4)(b), and (B)(4)(c) of OAC rule 3745-17-03.

V. Testing Requirements (continued)

1.b Emission Limitation:

98 weight-percent destruction of NMOC

Applicable Compliance Method:

Compliance with the allowable destruction of NMOC shall be assumed based upon demonstrating compliance with the operational restrictions for the net heating value and exit velocity (40 CFR 60.18).

1.c Emission Limitation:

20 percent opacity for cell load-in and wind erosion, as a 3-minute average

Applicable Compliance Method:

Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03*

1.d Emission Limitation:

20 percent opacity for surface working operations on top of landfill cells, as a 3-minute average

Applicable Compliance Method:

Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a), (B)(3)(b) and (B)(3)(e) of OAC rule 3745-17-03*

1.e *The procedures related to Test Method 9 reflects 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 these 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.

1.f Emission Limitation:

methane concentration from the collection system shall be less than 500 parts per million above background at the surface of the landfill

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the monitoring and record keeping requirements of sections A.III.13 through A.III.16 of this permit.

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
existing MSW landfill, gas collection and control system	OAC rule 3745-31-05 (PTI 16-1480)	0.88 lb\hr of sulfur dioxide (SO2) 2.76 lbs\hr of non methane organic compounds (NMOC) (includes stack and fugitive emissions) 3.56 lbs\hr of nitrogen dioxide (NO2) 19.2 lbs\hr of carbon monoxide (CO) 8.04 tpy of hazardous air pollutants (HAP) * (includes stack and fugitive emissions) 5.40 tpy of hydrogen chloride (HCl) (includes stack and fugitive emissions) 0.04 tpy of benzene (includes stack and fugitive emissions) 0.12 tpy of vinyl chloride (includes stack and fugitive emissions)
load-in of landfill cell (see section A.I.2.h for identification of landfill cell)	none	none
operation of vehicles on top of landfill cell, excluding emissions from the combustion of fuels in such vehicles (i.e., surface working)	none	none

2. Additional Terms and Conditions

2.a * Vinyl chloride, benzene, and HCl are also taken into account in the allowable emissions for the HAP.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

1. If there are no deviations during a calendar quarter that must be reported pursuant to the reporting requirements of this permit, the permittee shall submit a quarterly report, in accordance with paragraph B.8 of the General Terms and Conditions of this permit, which states that no deviations occurred during that quarter.

V. Testing Requirements

1. Compliance with the emission limitations in section B.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.88 lb/hr of SO2

Applicable Compliance Method:

Compliance with the allowable limit shall be calculated in accordance with the following methodology:

lbs/hr = [(scfm)*(60 min/hr)*(total sulfur conc [ppmv])*(99.7%)*(MW SO2)]/[(R)*(T)]

where:

scfm = flare inlet flow rate, in scfm, (calculated using the latest version of USEPA's Landfill Air Emissions Estimations Model Program, currently version 1.1, and then assuming that 85% of the emissions are directed to the flare) = 1455 scfm

total sulfur conc [ppmv] = total sulfur in inlet gas in parts per million by volume, (calculated using the inlet H2S, carbon disulfide, carbonyl sulfide, dimethyl sulfide, and methyl mercaptan concentrations from AP-42 (11/98), table 2.4-1) = 49.75 ppmv

99.7% = assumed conversion of sulfur-containing compounds to SO2 during combustion

MW SO2 = molecular weight of SO2 = 64

R = universal gas constant = 0.7302 (atm-ft3)/(lb-mole-degreesR)

T = standard temperature in Rankin = 520 degrees R

V. Testing Requirements (continued)

1.b Emission Limitation:

2.76 lbs/hr of NMOC
(includes stack and fugitive emissions)

Applicable Compliance Method:

Compliance with the allowable limit shall be calculated in accordance with the following methodology:

lbs/hr = stack emissions + fugitive emissions

stack = {(scfm)*(60 min/hr)*(NMOC conc [ppmv])*(MW NMOC)}/{(R)*(T)} * {1 - control efficiency}

where:

scfm = flare inlet flow rate, in scfm, (calculated using the latest version of USEPA's Landfill Air Emissions Estimations Model Program, currently version 1.1, and then assuming that 85% of the emissions are directed to the flare) = 1455 scfm

NMOC [ppmv] = NMOC inlet gas concentration in parts per million by volume, (from AP-42 (11/98), table 2.4-2) = 595 ppmv

MW NMOC = molecular weight of NMOC (as hexane) = 86.18

R = universal gas constant = 0.7302 (atm-ft3)/(lb-mole-degreesR)

T = standard temperature in Rankin = 520 degrees R

control efficiency = 98%, as required by 40 CFR 60, Subpart WWW

fugitive = {(scfm)*(60 min/hr)*(NMOC conc [ppmv])*(MW NMOC)}/{(R)*(T)}

where:

scfm = uncollected flow rate, in scfm, (calculated using the latest version of USEPA's Landfill Air Emissions Estimations Model Program, currently version 1.1, and then assuming that 85% of the emissions are directed to the flare) = 255 scfm

NMOC [ppmv] = NMOC inlet gas concentration in parts per million by volume, (from AP-42 (11/98), table 2.4-2) = 595 ppmv

MW NMOC = molecular weight of NMOC (as hexane) = 86.18

R = universal gas constant = 0.7302 (atm-ft3)/(lb-mole-degreesR)

T = standard temperature in Rankin = 520 degrees R

V. Testing Requirements (continued)

1.c Emission Limitation:

3.56 lbs/hr of NO2

Applicable Compliance Method:

Compliance with the allowable limit shall be calculated in accordance with the following methodology:

lbs/hr = (NO2 EF)*(heat input)

NO2 EF = NOx emission factor, (AP-42 (1/95) Table 13.5.1) = 0.068 lb/mmBtu

heat input = heat input to flare, 43 mmBtu/hr

1.d Emission Limitation:

19.2 lbs/hr of CO

Applicable Compliance Method:

Compliance with the allowable limit shall be calculated in accordance with the following methodology:

lbs/hr = (CO EF)*(heat input)

CO EF = CO emission factor, (AP-42 (1/95) Table 13.5.1) = 0.37 lb/mmBtu

heat input = heat input to flare, 43 mmBtu/hr

1.e Emission Limitation:

8.04 tpy of HAP
(includes stack and fugitive emissions)

Applicable Compliance Method:

Compliance with the allowable limit shall be calculated in accordance with the following methodology:

Total = Summation each HAP that is a LFG compound

V. Testing Requirements (continued)

1.f Emission Limitation:

5.40 tpy of HCl
(includes stack and fugitive emissions)

Applicable Compliance Method:

Compliance with the allowable limit shall be calculated in accordance with the following methodology:

lbs/hr = stack emissions + fugitive emissions

[NOTE: both stack and fugitive emissions are calculated in an identical manner, the only difference being that flow rate is 1455 scfm for stack and 255 scfm for fugitive emissions.]

stack emissions = summation of HCl emissions from each LFG compound

(CONC[ppmv])*(control efficiency)*(no. of chlorine atoms) = HCl con[ppmv] in outlet gas from each compound

{HCl con[ppmv]*scfm*MW HCl]/{(R)*(T)*(60 min/hr)} = HCl emissions from each LFG compound

Where:

CON[ppmv] = concentration of each LFG component in parts per million by volume (from AP-42 (11/98) Tables 2.4.1 and 2.4.2)

control efficiency = from AP-42 (11/98) Table 2.4.3 (AP-42 gives ranges for control efficiencies. Maximum emissions for individual compounds, except hydrogen chloride, are calculated based on the lowest end of each range.)

scfm = flare inlet flow rate, in scfm, (calculated using the latest version of USEPA's Landfill Air Emissions Estimations Model Program, currently version 1.1, and then assuming that 85% of the emissions are directed to the flare) = 1455 scfm for stack emissions

R = universal gas constant = 0.7302 (atm-ft3)/(lb-mole-degreesR)

T = standard temperature in Rankin = 520 degrees R

To determine the ton(s) per year HCl emissions, multiply the lbs/hr results by 8760 hours per year, and divide by 2000 lbs/ton.

V. Testing Requirements (continued)

1.g Emission Limitation:

0.04 tpy of benzene
(includes stack and fugitive emissions)

Applicable Compliance Method:

Compliance with the allowable limit shall be calculated in accordance with the following methodology:

lbs/hr = stack emissions + fugitive emissions

[NOTE: both stack and fugitive emissions are calculated in an identical manner, the only difference being that flow rate is 1455 scfm for stack and 255 scfm for fugitive emissions, and the fugitive emissions are not reduced (ie. control efficiency = 0).]

stack emissions = {benzene con[ppmv]*scfm*MW benzene]/{(R)*(T)*(60 min/hr)}*{1-control efficiency}

Where:

benzene con[ppmv] = concentration of benzene in parts per million by volume (from AP-42 (11/98) Table 2.4.2) = 1.91 ppmv

control efficiency = from AP-42 (11/98) Table 2.4.3 (AP-42 gives ranges for control efficiencies. Maximum emissions for individual compounds, except hydrogen chloride, are calculated based on the lowest end of each range.) = 38

scfm = flare inlet flow rate, in scfm, (calculated using the latest version of USEPA's Landfill Air Emissions Estimations Model Program, currently version 1.1, and then assuming that 85% of the emissions are directed to the flare) = 1455 scfm for stack emissions

R = universal gas constant = 0.7302 (atm-ft3)/(lb-mole-degreesR)

T = standard temperature in Rankin = 520 degrees R

To determine the ton(s) per year benzene emissions, multiply the lbs/hr results by 8760 hours per year, and divide by 2000 lbs/ton.

V. Testing Requirements (continued)

1.h Emission Limitation:

0.12 tpy of vinyl chloride
(includes stack and fugitive emissions)

Applicable Compliance Method:

Compliance with the allowable limit shall be calculated in accordance with the following methodology:

lbs/hr = stack emissions + fugitive emissions

[NOTE: both stack and fugitive emissions are calculated in an identical manner, the only difference being that flow rate is 1455 scfm for stack and 255 scfm for fugitive emissions, and the fugitive emissions are not reduced (ie. control efficiency = 0).]

stack emissions = {vinyl chloride con[ppmv]*scfm*MW vinyl chloride]/{(R)*(T)*(60 min/hr)}*{1-control efficiency}

Where:

vinyl chloride con[ppmv] = concentration of vinyl chloride in parts per million by volume (from AP-42 (11/98) Table 2.4.1) = 12.1 ppmv

control efficiency = from AP-42 (11/98) Table 2.4.3 (AP-42 gives ranges for control efficiencies. Maximum emissions for individual compounds, except hydrogen chloride, are calculated based on the lowest end of each range.) = 91

scfm = flare inlet flow rate, in scfm, (calculated using the latest version of USEPA's Landfill Air Emissions Estimations Model Program, currently version 1.1, and then assuming that 85% of the emissions are directed to the flare) = 1455 scfm for stack emissions

R = universal gas constant = 0.7302 (atm-ft3)/(lb-mole-degreesR)

T = standard temperature in Rankin = 520 degrees R

To determine the ton(s) per year vinyl chloride emissions, multiply the lbs/hr results by 8760 hours per year, and divide by 2000 lbs/ton.

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Roadways/Parking (F002)

Activity Description: Release of fugitive dust from 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 roadways and parking areas (see section A.I.2.a)	OAC rule 3745-17-07(B)(4)	no visible particulate emissions except for 6 minutes during any 60-minute period
	OAC rule 3745-17-08(B), (B)(8), (B)(9)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see sections A.I.2.a, A.I.2.c, A.I.2.d, A.I.2.e, A.I.2.h, and A.I.2.i)
unpaved roadways and parking areas (see section A.I.2.b)	OAC rule 3745-17-07(B)(5)	no visible particulate emissions except for 13 minutes during any 60-minute period
	OAC rule 3745-17-08(B), (B)(2)	reasonably 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.i)

2. Additional Terms and Conditions

2.a The paved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

Paved roadways:

entrance road

Paved parking areas:

entrance parking

2. Additional Terms and Conditions (continued)

2.b The unpaved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

Unpaved roadways:

unpaved road - D
unpaved road - G

Unpaved parking areas:

none

2.c The permittee shall employ reasonably available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and parking areas by flushing with water at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.d 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.e The permittee shall employ reasonably available control measures on the unpaved shoulders of all paved roadways for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved shoulders of all paved roadways with water at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.f The permittee shall employ reasonably available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved roadways and parking areas with water at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.g The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for 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 ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.

2.h 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 controlled with the control measure specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.

2.i Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.

2.j 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 3745-17-08.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. Except as otherwise provided in this section, the permittee shall perform inspections of the roadways and parking areas in accordance with the following frequencies:

Paved roadways and parking areas	Minimum inspection frequency
paved road	daily
parking area	daily

Unpaved roadways and parking areas	Minimum inspection frequency
unpaved road - D	daily
unpaved road - G	daily

2. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

3. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or 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. Such modified inspection frequencies would not be considered a minor or significant modification that would be subject to the Title V permit modification requirements in paragraphs (C)(1) and (C)(3) of OAC rule 3745-77-08.

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

a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;

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

c. the dates the control measures were implemented; and

d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in section A.III.4.d shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

IV. Reporting Requirements

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

a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and

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

IV. Reporting Requirements (continued)

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

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
paved roadways and parking areas (see section A.I.2.a)	none	none
unpaved roadways and parking areas (see section A.I.2.b)	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

1. If there are no deviations during a calendar quarter that must be reported pursuant to the reporting requirements of this permit, the permittee shall submit a quarterly report, in accordance with paragraph B.8 of the General Terms and Conditions of this permit, which states that no deviations occurred during that quarter.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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