



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
WYANDOT COUNTY**

CERTIFIED MAIL

Street Address:

122 S. Front Street

Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 03-3157

DATE: August 11, 1999

County Environmental of Wyandot
Ted Neura
11164 County Road 4
Carey, OH 44707

CORRECTED COPY

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

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

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

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

Very truly yours,
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA
DAPC, NWDO



STATE OF OHIO ENVIRONMENTAL PROTECTION

**Permit To Install
Terms and
Conditions**

**Issue Date: August 11, 1999
Effective Date: August 11, 1999
Correction issued: December 8, 1999**

**PERMIT TO INSTALL 03-3157
*CORRECTED COPY***

Application Number: 03-3157
APS Premise Number: 0388000039
Permit Fee: **\$600**
Name of Facility: County Environmental of Wyandot
Person to Contact: Ted Neura
Address: 11164 County Road 4
Carey, OH 44707

Location of proposed air contaminant source(s) [emissions unit(s)]:
**11164 County Road 4
Carey, Ohio**

Description of proposed emissions unit(s):
MUNICIPAL SOLID WASTE LANDFILL WITH ACTIVE GAS FLARE SYSTEM.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

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

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping 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.14 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. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with 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 on an annual basis unless the applicable requirement specifies more frequent submissions.
 - 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.

10. 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

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upset provision contained in any applicable requirement.

11. Title V Permit To Operate Application

Pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit.

B. State Only Enforceable Permit To Install General Terms and Conditions**1. Compliance Requirements**

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

2. Reporting Requirements 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. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may

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lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance

that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities prove to be inadequate or cannot meet applicable standards.

10. Public Disclosure

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

11. Applicability

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

12. Best Available Technology

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

13. Construction Compliance Certification

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

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

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

C. Permit To Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PE	87.27
PE ₁₀	23.40
NMOC	85.21
CH ₄	12464.5
SO ₂	5.35
NO _x	27.32
CO	89.76
HCl	7.88

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

None.

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

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

Count

PTI A₁

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Emissions Unit ID: P901

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Existing MSW landfill equipped with an active gas collection and control system (open flare).	OAC rule 3745-17-07(B)(1)	Visible fugitive particulate emissions shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	Use of reasonably available control measures, as defined in the "additional terms and conditions" section, to minimize or eliminate the emissions of fugitive dust (see A.I.2.d. through j.)
	40 CFR Part 60, Subpart WWW	See (A.I.2.a. through c.)

2. Additional Terms and Conditions

- 2.a The active collection system shall satisfy the following requirements, as specified in 40 CFR Part 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.
- iv. The system shall be designed to minimize off-site migration of subsurface gas.

2.b 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.
- iii. The permittee shall comply with either the requirements in paragraph (a) and (b) or the requirements in paragraph (c):

- (a) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined as follows:

$$H_t = k \times (\text{the summation of } C_i H_i \text{ for } i=1 \text{ through } i=n)$$

Where

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

k = constant, 1.740×10^{-7} (1/ppm) (g

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mole/scm) (MJ/kcal)

where the standard temperature for (g mole/scm) is 20 degree C.

C_i = 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

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

- (b) A steam-assisted and nonassisted 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 nonassisted 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 nonassisted flare shall be designed for and operated with an exit velocity of less than the velocity, V_{max} , and less than 122 m/sec (400 ft/sec) are allowed; as determined by

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

where

V_{max} = maximum permitted velocity, M/sec,

28.8 = constant

31.7 = constant

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

- (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, V_{max} , as determined by the following equation:

$$V_{max} = (X_{h2} - K1) * K2$$

where:

V_{max} = maximum permitted velocity, m/sec.

K1 = constant, 6.0 volume-percent hydrogen.

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

X_{h2} = the volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77.

- iii. Air-assisted flare shall be designed for and operated with an exit velocity of less than the velocity, V_{max} , as determined by the following equation:

$$V_{max} = 8.706 + 0.7084 (Ht)$$

where

V_{max} = maximum permitted velocity, m/sec

8.706 = constant

0.7084 = constant

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

- 2.c** The collection and control system may be capped or removed provided that all of the following conditions, as specified in 40 CFR Part 60.752(b)(2)(v), are met:
- i. The landfill shall be no longer accepting solid waste and be permanently closed (pursuant to 40 CFR Part 258.60).
 - ii. The collection and control system shall have been in operation a minimum of 15 years.
 - iii. The calculated NMOC gas produced by the landfill shall be less than 55 TPY on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.
- 2.d** All landfill areas and operations are covered by this permit and subject to the requirements of OAC rule 3745-17-08.
- 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

Emissions Unit ID: P901

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.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 permittee shall operate the collection system such that gas 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.
2. The permittee shall operate the collection system with negative pressure at each wellhead except under the following conditions:
 - a. A fire or increased well temperature. (The permittee shall record instances when positive pressure occurs in efforts to avoid a fire.)
 - b. Use of a geomembrane or synthetic cover. (The permittee shall develop acceptable pressure limits in the design plan.)
 - c. A decommissioned well. (A well may experience a static positive pressure after shutdown to accommodate for declining flows. All design changes shall be approved by the Director of Ohio EPA.)
3. 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.
4. 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.

5. The permittee shall operate the collection system such that all collected gases are vented to a control system designed and operated in compliance with A.I.2.a. 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.
6. The permittee shall operate the flare at all times when the collected gas is routed to the system.
7. A pilot flame shall be maintained at all times in the flare's pilot light burner.
8. The permittee shall not accept or dispose of any "asbestos material" as defined in OAC 3745-20-01 or asbestos-containing waste material as defined in 40 CFR 61.141 containing more than 1 percent asbestos as determined using the methods specified in appendix A, Subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy. The receipt or disposal of any asbestos material or asbestos-containing waste without proper approval of the Ohio EPA is a violation of the NESHAPS for asbestos and the Ohio EPA Permit to Install rules.

III. Monitoring and/or Recordkeeping 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 and record the following information on a monthly basis:
 - a. the gauge pressure in the gas collection header at each individual well;
 - b. the nitrogen or oxygen concentration in the landfill gas; and,
 - c. the temperature of the landfill gas.
2. The permittee shall monitor surface concentrations of methane on a quarterly basis as follows:
 - 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.
 - 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.
 - 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.

- 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 A.II.4.:
 - 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.
 - iv. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm 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 above shall be taken.
3. The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:
 - a. a heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame; and,
 - 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

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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:

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:

$$Q_m = 2L_o \times R \times \{(e \text{ to the power } -kc) - (e \text{ to the power } -kt)\}$$

where,

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

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

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, per year

t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less (If the equipment is installed after closure, t is the age of the landfill at installation), years

c = time since closure, years (for an active landfill $c = 0$ and $(e$ to the power $-kc) = 1$)

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

$Q_m = \text{Summation of } 2kLoM_i \times (e \text{ to the power } -kt_i \text{ for } i=1 \text{ through } i=n)$

where,

Q_m = 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

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

t_i = age of the i th section, 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 shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment. (The permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Ohio EPA.);

- b. 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);
- c. the flare type (i.e., steam-assisted, air-assisted, or non-assisted);
- d. all visible emission readings;
- e. heat content determinations of the gas;
- f. flow rate or bypass flow rate measurements;
- g. exit velocity determinations made during the performance test as specified in 40 CFR Part 60.18; and,
- 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 pilot 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:

- a. all periods during which there was no pilot flame;
 - b. the downtime for the flare and monitoring equipment when the collection and control system is 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.
8. The permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity of the landfill, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either hardcopy or electronic formats are acceptable. These records, may be also required by the OEPA, Division of Solid and Infectious Waste Management, and shall satisfy this permit condition.
9. Except as otherwise provided in this section, the permittee shall perform inspections of the landfill operation areas in accordance with the following frequencies:

landfill areas	minimum inspection frequency
all landfill areas	daily

10. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures for fugitive landfill particulate emissions. The inspections shall be performed during representative, normal operating conditions. No inspection shall be necessary for a landfill operating area or 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. 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.
11. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District

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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.

12. 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 12.d. shall be kept separately for (i) the solid waste 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 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.

IV. Reporting Requirements

1. Any breakdown or malfunction of the landfill gas collection and control system resulting in the emission of raw landfill gas emissions to the atmosphere shall be reported to the appropriate Ohio EPA District Office or 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.
2. The permittee shall submit an NMOC annual emission rate report to the appropriate Ohio EPA District Office or local air agency. The report shall include all the data, calculations, sample reports and measurements used to estimate the annual emissions.
3. The permittee shall submit a closure report to the appropriate Ohio EPA District Office or local air agency 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 Part 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 Part 60.7(a)(4).

4. The permittee shall submit an equipment removal report to the appropriate Ohio EPA District Office or local air agency 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 Part 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 Part 60.752(b)(2)(v) have been met.
5. 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;

- b. each instance when a control measure that was to be implemented as a result of an inspection, was not implemented;
- c. any record which indicates that the gauge pressure in the gas collection header at each individual well was positive;
- d. any record which indicates that the nitrogen or oxygen concentration in the landfill gas was greater than 20% or 5%, respectively;
- e. any record which indicates that the temperature of the landfill gas was greater than 55 degrees Celsius;
- f. any record which indicates that the surface concentration of methane was greater than 500 parts per million above background;
- g. all periods during which the flare pilot flame was not functioning properly (the reports shall include the date, time, and duration of each such period); and,
- h. 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 the General Terms and Conditions of this permit.

6. The permittee shall submit annual reports which include the following:
 - a. all periods when the collection system was not operating in excess of 5 days; and,
 - b. any record indicating the date of installation and the location of each well or collection system expansion added pursuant to 40 CFR Part 60.755(a)(3), (b), and (c)(4).

These reports shall be submitted by January 31 of each year.

7. The permittee shall submit the following information with the initial performance test report required pursuant to 40 CFR Part 60.8:
 - a. a diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future

collection system expansion;

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

- c. the documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;
- d. the sum of the gas generation flow 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;
- e. the provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and
- f. the provisions for the control of off-site migration.

V. Testing Requirements

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

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.
 - b. Emission Limitation:

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

Applicable Compliance Method:

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

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rule 3745-17-03.

2. 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).

3. The oxygen level shall be determined by an oxygen meter 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:
 - a. the span shall be set so that the regulatory limit is between 20 and 50% of the span;
 - b. a data recorder is not required;
 - c. only two calibration gases are required, a zero and span, and ambient air may be used as the span;
 - d. a calibration error check is not required; and,
 - e. the allowable sample bias, zero drift, and calibration drift are plus or minus 10%.
4. 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.
5. 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 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

None.

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B. State Only Enforceable Section**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Existing MSW landfill equipped with an active gas collection and control system (open flare).	OAC rule 3745-31-05	Fugitive Landfill Gas 78.9 TPY NMOC 11,759 TPY Methane Controlled Emissions from Flare 1.44 lbs NMOC/hr, 6.31 TPY NMOC 161.1 lbs CH ₄ /hr, 705.5 TPY CH ₄ 1.49 lb PE/hr, 6.50 TPY PE 1.22 lb SO ₂ /hr, 5.35 TPY SO ₂ 6.24 lbs NO _x /hr, 27.32 TPY NO _x 20.49 lbs CO/hr, 89.76 TPY CO 5.30 lbs HCl/hr, 23.19 TPY HCl Fugitive Landfill Particulate Emissions 5.65 TPY PE 2.83 TPY PE ₁₀

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

1. Emission Limitation:

Fugitive Landfill Gas - 78.9 TPY NMOC and 11,759 TPY Methane

Applicable Compliance Method:

The annual emission limitations represent the maximum potential to emit based on AP-42 chapter 2.4 (11/98) landfill gas generation equations. Maximum potential emissions will occur in the year 2020 and are based on the following:

- a. maximum daily landfill waste acceptance of 3,500 cubic yards
- b. maximum landfill capacity of 30,000,000 cubic yards (21.097×10^6 Mg)
- c. NMOC concentration data obtained from actual (teir 2) sampling at the landfill
- d. an assumed landfill gas collection system efficiency of 75% based on AP-42 chapter 2.4 (11/98) factors

Since the annual limitations represents the emission unit's maximum potential to emit, no recordkeeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with the above limitations.

2. Emission Limitation:

Controlled Emissions from Flare (short-term)

1.44 lbs NMOC/hr

161.1 lbs CH₄/hr

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Applicable Compliance Method:

The flare emission limitations (short-term) were developed by applying a 98% reduction efficiency for control with a flare to a maximum calculated flare gas stream of 72 lbs NMOC/hr and 8055 lbs CH₄/hr. Compliance shall be demonstrated by ensuring the flare operates at the proper efficiency through the flare monitoring and recordkeeping specified in Section A.III.

3. Emission Limitation:

Secondary Emissions from Flare (short-term)

a. 1.49 lbs PE/hr

Applicable Compliance Method:

The secondary emission limitation (short-term) represents the maximum potential to emit based on calculations using AP-42 chapter 2.4-1 (11/98) emission factors, a heat value of 1000 Btu/dscf for methane and a maximum methane flowrate of 1485 dscfm. Since the above limitation represents the emission unit's maximum potential to emit, no recordkeeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with the above limitation.

b. 1.22 lbs SO₂/hr

Applicable Compliance Method:

The secondary emission limitation (short-term) represents the maximum potential to emit based on calculations assuming that all sulfur containing compounds in landfill gas react to form SO₂. The potential to emit calculations were based on sulfur compound concentrations from AP-42 chapter 2.4-1 (11/98) and a maximum gas flowrate to the flare of 2,500 dscfm. Since the above limitation represents the emission unit's maximum potential to emit, no recordkeeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with the above limitation.

c. 6.24 lbs NO_x/hr

Applicable Compliance Method:

The secondary emission limitation (short-term) represents the maximum potential to emit based a flare design emission factor of 0.07 lb NO_x/MMBtu, a heat value of 1000 Btu/dscf for methane, and a maximum methane flowrate of 1,485 dscfm. Since the above limitation represents the emission unit's maximum potential to emit, no recordkeeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with the above limitation.

d. 20.49 lbs CO/hr

Applicable Compliance Method:

The secondary emission limitation (short-term) represents the maximum potential to emit based a flare

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design emission factor of 0.23 lb CO/MMBtu, a heat value of 1000 Btu/dscf for methane, and a maximum methane flowrate of 1,485 dscfm. Since the above limitation represents the emission unit's maximum potential to emit, no recordkeeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with the above limitation.

e. 5.30 lbs HCl/hr

Applicable Compliance Method:

The secondary emission limitation (short-term) represents the maximum potential to emit based an emission factor of 12 lb HCl/MMft³ and a maximum landfill gas generation rate of 441,300 ft³/hr. Since the above limitation represents the emission unit's maximum potential to emit, no recordkeeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with the above limitation.

4. Emission Limitation: C

Controlled Emissions from Flare (long-term)

- a. 6.31 TPY NMOC
- b. 705.5 TPY CH₄
- c. 6.50 TPY PE
- d. 5.35 TPY SO₂
- e. 27.32 TPY NO_x
- f. 89.76 TPY CO
- g. 23.19 TPY HCl

Applicable Compliance Method:

The tons/yr limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule 8,760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitations.

5. Emission Limitation:

Fugitive Landfill Particulate Emissions - 5.65 TPY PE & 2.83 TPY PM₁₀

Applicable Compliance Method:

Emission limitations were developed by applying an 80% control efficiency for dust suppression

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to a maximum potential uncontrolled emission rate of 28.27 TPY PE and 14.13 TPY PM₁₀. Compliance shall be demonstrated through the fugitive dust monitoring and recordkeeping requirements in Section A.III.

VI. Miscellaneous Requirements

None.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S) [Continued]

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Parking and Unpaved Roadways	OAC rule 3745-17-07 (B)	No visible particulate emissions except for a period of time not to exceed 13 minutes during any 60-minute observation period
	OAC rule 3745-17-08 (B)	Reasonably available control measures to minimize or eliminate visible particulate emissions of fugitive dust

2. Additional Terms and Conditions

- 2.a The unpaved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:

unpaved roadway

The 1-mile unpaved road segment traveled by employee traffic, as specified in the PTI application

The 2-mile round trip/truck unpaved road segment traveled by loader traffic, as specified in the PTI application

- 2.b 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 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.

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- 2.c** 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 an 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.d** 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 using any combination of flushing, sweeping, and/or watering. 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 a visible emission limitation of no visible particulate emissions except for one minute during any 60-minute period.
- 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** 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.

II. Operational Restrictions

1. The permittee shall apply dust suppressants to the unpaved roadways and parking areas to minimize or eliminate, at all times, visible emissions of fugitive dust generated by vehicular traffic. Water and/or any other suitable dust suppression chemicals shall be used as the dust suppressant. The dust suppressant shall be applied to the unpaved surfaces as needed to ensure compliance with this permit. This term and condition shall be waived during wet conditions when there is sufficient moisture to prevent visible emissions of fugitive dust.
2. Any material carried off of the permittee's property and deposited onto public streets by vehicular traffic or by erosion by water, etc., shall be promptly removed and disposed of properly to minimize or prevent resuspension.

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3. A maximum speed limit of 15 miles per hour shall be posted and enforced on the property.
4. Open bodied vehicles transporting materials likely to become airborne shall be covered at all times.

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III. Monitoring and/or Recordkeeping Requirements

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

unpaved roadways

All unpaved roadways

minimum inspection frequency

Once during each day of operation

2. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
3. The permittee may, upon receipt of written approval from the 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.
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 4.d. shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

IV. Reporting Requirements

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1. The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and,
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

V. Testing Requirements

1. Emission Limitation:

No visible particulate emissions except for a period of time not to exceed 13 minutes during any 60-minute observation period

Applicable Compliance Method:

Method 22 of 40 CFR Part 60, Appendix A.

2. Emission Limitation:

Reasonably available control measures to minimize or eliminate visible particulate emissions of fugitive dust.

Applicable Compliance Method:

The permittee shall demonstrate compliance through monitoring and recordkeeping requirements specified in Section A.III.

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Parking and Unpaved Roadways	OAC rule 3745-31-05	75.12 TPY PE 20.57 TPY PE ₁₀ No visible particulate emissions from any unpaved roadway or parking area except for a period of time not to exceed 3 minutes during any 60-minute observation period Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see A.2.b through A.2.f)

2. **Additional Terms and Conditions**

- 2.a The permittee shall meet the requirements of the additional terms and conditions specified in Section A.I.2. of this permit for purposes of complying with state enforceable emission limitations and control requirements.
- 2.b Implementation of the control measures in accordance with the terms and conditions specified in Section A.I.2 of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05.

II. Operational Restrictions

1. The permittee shall comply with the operational restrictions specified in Section A.II. of this permit for purposes of complying with state enforceable emission limitations and control requirements.

August 11, 1999

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall comply with the monitoring and recordkeeping specified in Section A.III. of this permit for purposes of complying with state enforceable emission limitations and control requirements.

IV. Reporting Requirements

1. The permittee shall comply with the reporting requirements specified in Section A.IV. of this permit for purposes of complying with state enforceable emission limitations and control requirements.

V. Testing Requirements

1. Emission Limitation:

20.57 TPY PE₁₀, 75.12 TPY PE

Applicable Compliance Method:

Emission limitations were developed by applying an 80% control efficiency for dust suppression to a maximum potential uncontrolled emission rate of 102.85 TPY PM₁₀ and 375.6 TPY PE. Compliance shall be demonstrated through the monitoring and recordkeeping requirements in Section A.III of this permit.

2. Emission Limitation:

There shall be no visible particulate emissions from any unpaved roadway or parking area except for a period of time not to exceed 3 minutes during any 60-minute observation period.

Applicable Compliance Method:

Method 22 of 40 CFR Part 60, Appendix A.

VI. Miscellaneous Requirements

None.