State of Ohio Environmental Protection Agency

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

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: 03-16212
Fac ID: 0388000039
DATE: 10/21/2004

Co. Environmental of Wyandot Sanitary LF
Mark O Brien
2175 Stiving Road
Mansfield, OH 44905

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

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

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

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

Sincerely,

Michael W. Ahern

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

cc: **USEPA** **NWDO**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install		**Issue Date:**	**10/21/2004**
Terms and Conditions		**Effective Date:**	**10/21/2004**

FINAL PERMIT TO INSTALL 03-16212

Application Number:	03-16212
Facility ID:	0388000039
Permit Fee:	**$200**
Name of Facility:	Co. Environmental of Wyandot Sanitary LF
Person to Contact:	Mark O Brien
Address:	2175 Stiving Road Mansfield, OH 44905

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

Description of proposed emissions unit(s):
Landfill - Modification to accept asbestos containing waste.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

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

1. Monitoring and Related Recordkeeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous

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

iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.
Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

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

4. Title IV Provisions

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

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition

declared invalid.

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

8. Federal and State Enforceability

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

9. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

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

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

11. Best Available Technology

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

12. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

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

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Permit Transfers

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

4. Termination of Permit To Install

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

within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

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

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

6. Public Disclosure

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

7. Applicability

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

8. Construction Compliance Certification

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

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

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

C. Permit To Install Summary of Allowable Emissions

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

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

Pollutant	Tons Per Year
38.3	Fugitive NMOC
4.34	NMOC
4750	Fugitive Methane
539.18	Methane
44.5	NOx
242.13	CO
6.35	HCl
47.8	Fugitive PE
11.12	PM_{10}
9.14	SO_2

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

None

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

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
P901 - Solid Waste Landfill with Active Gas Collection System and Open Flare (Administrative modification of PTI #03-13157, issued on 8/11/99, to include asbestos regulations and to add PM_{10} and SO_2 limitations)	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(B)
		OAC rule 3745-17-08(B)
		40 CFR, Part 60, Subpart WWW
		40 CFR, Part 61, Subpart M

	Applicable Emissions Limitations/Control Measures	
40 CFR, Part 63, Subpart AAAA	See A.I.2.a 38.3 tons of fugitive nonmethane organic compounds (NMOC)/year 4750 tons of fugitive methane/year 47.8 tons of fugitive particulate emissions (PE)/year Visible fugitive PE shall not exceed 20% opacity, as a 3-minute average from operations not associated asbestos- containing material (ACM) Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (See A.I.2.d through A.I.2.g) See A.I.2.j through A.I.2.p for requirements and limitations associated with ACM <u>Emissions from the Flare</u> 0.99 lbs NMOC/hr, 4.34 tons NMOC/yr 123.1 lbs methane/hr, 539.18 tons methane/yr 10.16 lb nitrogen oxides (NOx)/hr, 44.5 tons NOx/yr 55.28 lbs carbon monoxide (CO)/hr, 242.13 tons CO/yr	1.45 lbs HCl/hr, 6.35 tons HCl/yr 2.54 lbs particulate matter less than 10 microns (PM_{10})/hr, 11.12 tons PM_{10}/yr (See A.I.2.c) 2.09 lbs sulfur dioxide (SO_2)/hr, 9.14 tons SO_2/yr See A.I.2.b See A.I.2.c See A.I.2.q through A.I.2.s, A.II.1 through A.II.6, A.III.1 through A.III.9, A.IV.2 through A.IV.6 See A.I.2.e See A.IV.4, AVI.6 and A.VI.7

2. Additional Terms and Conditions

2.a The requirements of this rule include compliance with the terms and conditions of this permit. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart WWW and 40 CFR Part 63, Subpart AAAA.

2.b This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).

2.c This facility is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

2.d All particulate emissions from the flare are PM_{10}.

2.e The requirements established pursuant to this rule are less stringent or equivalent to the requirements of OAC rule 3745-31-05(A)(3).

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

i. cell load-in operation
   (a) soil loading
   (b) soil unloading

ii. surface working operations
   (a) landfill surface removal
   (b) cover/construction soil placement

iii. clay/soil stockpile

iv. wind erosion of unvegetated surfaces

2.g The permittee shall employ best available control measures for the above-identified landfill fugitive dust operations/sources for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat with water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance.

2.h The above-mentioned control measures shall be employed 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.

Implementation of the control measures shall not be necessary for fugitive dust sources which are covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.

2.i Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

2.j There shall be no visible emissions from asbestos-containing waste materials (ACM) during on-site transportation, transfer, deposition, or compacting operations.

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

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

2.l Deposition and burial operations shall be conducted in a manner which prevents handling by equipment or persons that causes asbestos-containing waste materials to be broken up or dispersed before the materials are buried.

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

i. As soon as practicable after the placement of friable asbestos, but no later than the end of each working day, the asbestos-containing waste materials deposited at the site during the operating day shall be covered with at least 12 inches of non-ACM. Once the ACM are covered, the area may be compacted.

ii. Care should be taken to ensure that disposed asbestos shall not be re-excavated in subsequent operations. Any accidentally exposed material shall be immediately recovered in accordance with the provisions of condition i above.

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

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

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

2.p The permittee shall establish restricted access, adequate to deter the unauthorized entry of the general public and any unauthorized personnel, within 100 feet of the unloading, deposition, and burial areas of the asbestos-containing waste material. A hazard warning shall display the following information on signs not less than 20 x 14 inches in size, posted so they are visible before entering an area with asbestos waste disposal operations in progress:

"ASBESTOS WASTE DISPOSAL SITE
DO NOT CREATE DUST
BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH"

The letter sizes and styles shall be of a visibility at least equal to the following specifications: one inch sans serif, gothic or block in the first and second line; and at least three-fourths inches sans serif, gothic or block in the third line; and fourteen point gothic in the fourth line. Spacing between any two lines must be at least equal to the height of the upper of the two lines.

2.q The active gas 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.r 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 of time 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 paragraphs (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 non-assisted. The net heating value of the gas being combusted shall be determined as follows:

.

where

Ht = net heating value of the sample, MJ/scm; where the net enthalpy per

mole of off-gas is based on combustion at 25°C and 760 mmHg, but the standard temperature for determining the volume corresponding to one mole is 20°C;

K = constant, 1.740×10^{-7} (1/ppm)(g mole/scm)(MJ/kcal) where the standard temperature for (g mole/scm) is 20°C;

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

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

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

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

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

$$\text{Log10 (Vmax)} = (HT + 28.8)/31.7$$

where

Vmax = maximum permitted velocity, M/sec
28.8 = constant
31.7 = constant
HT = net heating value as determined in section A.I.2.r.iii(a) above

(iii) Flares shall be used that have a diameter of 3 inches or greater, are

non-assisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, Vmax, as determined by the following equation:

Vmax = (Xh2 - K1)*K2

where

Vmax = maximum permitted velocity, m/sec
K1 = constant, 6.0 volume-percent hydrogen
K2 = constant, 3.9(m/sec)/volume-percent hydrogen
XH2 = volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77.

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

Vmax = 8.706 + 0.7084 (HT)

where

Vmax = maximum permitted velocity, m/sec
8.706 = constant
0.7084 = constant
HT = net heating value as determined in section A.I.2.r.iii(a) above

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

i. The landfill should no longer be accepting solid waste and be permanently closed, pursuant to 40 CFR Part 60.258.60.

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 tons per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

II. Operational Restrictions

1. The permittee shall operate the collection system with negative pressure at each well 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 Northwest District Office).

2. The permittee shall operate each interior well 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%. If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Northwest District Office.

   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.

3. 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. For exceedances, refer to section A.III.2.d.

4. 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.q. 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.

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

6. A pilot flame shall be maintained at all times in the flare's pilot burner, or a fail-close valve shall be installed to cease gas flow to the flare when there is no flame present.

III. Monitoring and/or Recordkeeping Requirements

1. For the active gas collection system, the permittee shall install a sampling port for each well 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 or 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.3:

      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 time line 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 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 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:

      $$Qm = 2L_oR(e^{-kc} - e^{-kt})$$

      where,

      Qm = maximum expected gas generation flow rate, cubic meters per year
      Lo = methane generation potential, cubic meters per megagram solid waste
      R = average annual acceptance rate, megagrams per year
      k = methane generation rate constant, $year^{-1}$
      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 $e^{-kc} = 1$)

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

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where,

Qm = maximum expected gas generation flow rate, cubic meters per year
k = methane generation rate constant, per year
Lo = methane generation potential, cubic meters per megagram solid waste
Mi = mass of solid waste in the ith section, megagrams
ti = age of the ith 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 measure 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 flame monitoring and all periods of operation during which the flare flame is absent.

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

a. All periods during which there was no flame; and

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 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 hard copy or electronic formats are acceptable. These records may also be required by the Ohio EPA, Division of Solid and Infectious Waste Management, and shall satisfy this permit condition.

9. 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.

10. The permittee shall maintain a waste shipment record for all ACM. The waste shipment record shall be legible, complete, signed and dated by the waste generator and waste disposal site operator, and shall include the following information:

    a. The name of the work site or facility where the asbestos-containing waste was generated and the mailing address and telephone number of the facility owner.

    b. The name, mailing address, and telephone number of the owner or operator (waste generator) responsible for handling, packing, marking, and labeling the asbestos-containing waste material.

    c. The name, mailing address, telephone number, and site location of the active waste disposal site designated by the generator to receive the asbestos-containing waste material for disposal.

    d. The name and address of the local, State, or U.S. EPA regional office responsible for administering the asbestos NESHAP program.

    e. A description of the asbestos-containing waste materials included in the waste shipment.

f. The number and type of containers included in the waste shipment.

g. The approximate volume of asbestos-containing waste material included in the waste shipment, in cubic yards.

h. Special handling instructions or additional information relative to the waste shipment the generator may specify.

i. A certification that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and governmental regulations.

j. The name, address, and telephone number of the transporter.

k. A signature by the transporter to acknowledge receipt of the asbestos-containing waste shipment described by the waste generator in section A.III.10.a through A.III.10.j.

l. A discrepancy indication space to be completed by the transporter or waste shipment owner or operator if any improperly contained asbestos waste is observed or if there is any discrepancy in the quantity of asbestos shipped and the quantity of asbestos waste received at the asbestos waste disposal site.

m. A signature by the waste disposal site operator to acknowledge receipt of the asbestos-containing waste shipment described by the waste generator in section A.III.10.a through i, except as noted in the discrepancy indication space

As soon as possible and no longer than thirty days after receipt of the waste, send the original completed copy of the signed waste shipment record to the waste generator and retain the remaining copy for the waste site disposal record.

11. The permittee shall maintain records of the location, depth, area, and quantity in cubic yards of all asbestos-containing waste material within the disposal site, on a map or a diagram of the disposal area.

12. Except as otherwise provided in this section, the permittee shall perform inspections of the landfill fugitive dust operations/sources in accordance with the following frequencies:

landfill fugitive dust operations/sources	minimum inspection frequency
landfill surface removal	once during each day of operation
soil loading	once during each day of operation
soil unloading	once during each day of operation
cover/construction soil placement	once during each day of operation
clay/soil stockpile	once during each day of operation
wind erosion of unvegetated surfaces	once during each day of operation

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

14. The permittee may, upon receipt of written approval from the Northwest District Office, 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.

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

    a. the date and reason any required inspection was not performed;

    b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);

    c. the dates the control measure(s) was (were) implemented; and

    d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

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

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 Northwest District Office within one hour after the occurrence, or as soon 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 a closure report to the Northwest District Office 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).

3. The permittee shall submit an equipment removal report to the Northwest District Office 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.

4. The permittee shall submit reports of the recorded information below every 6 months:

   a. Value and length of time for exceedance of applicable parameters contained in Section A.II.1, A.II.2, and A.II.5.

   b. Description and duration of all periods when the gas stream is not vented to BioEnergy LLC and is diverted from the control device (flare) through a bypass line or the indication of bypass flow.

   c. Description and duration of all periods when the control device (flare) was not operating for a period exceeding 1 hour and length of time the control device was not operating.

   d. All periods when the collection system was not operating in excess of 5 days.

   e. 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.

   f. 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 31and July 31 for the previous six calendar months.

5. 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 rates 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.

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

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

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

   These quarterly reports shall be submitted no later than January 31, April 30, July 31, and October 31 and shall cover the previous calendar quarters.

7. As soon as possible and no longer than 30 days after receipt of the asbestos waste (ACM), the permittee shall send a copy of the signed waste shipment record to the waste generator.

8. Upon discovering a discrepancy between the quantity of waste designated on a waste shipment record and the quantity actually received, the permittee shall attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the State, local, district, or U.S. EPA regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the Northwest District Office. Describe the discrepancy and attempts to reconcile it and submit a copy of the waste shipment record along with the report.

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

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

    a. Scheduled starting and completion dates;

    b. Reason for disturbing the waste;

    c. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material (if deemed necessary, the Northwest District Office may require changes in the proposed emission control procedures); and

    d. Location of any temporary storage site and the final disposal site.

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

12. 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.

13. Pursuant to the New Source Performance Standards (NSPS), the source owner/operator is hereby advised of the requirements to report the following at the appropriate times:

    a. construction date (no later than 30 days after such date);
    b. actual start-up date (within 15 days after such date); and
    c. date of performance testing (if required, at least 30 days prior to testing).

    Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
Lazarus Government Center
P.O. Box 1049
Columbus, OH 43216-1049

and

Ohio EPA, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402

V. Testing Requirements

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

   a. Emission Limitation: 38.3 tons of fugitive NMOC/year and 4750 tons of fugitive methane/year

      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:

      i. maximum annual landfill waste acceptance of 748,000 tons;

      ii. maximum landfill capacity of 18,000,000 tons (16.4 x 10^6 Mg);

      iii. NMOC concentration data obtained from actual (tier 2) sampling at the landfill; and

      iv. an assumed landfill gas collection system efficiency of 85%, based on consideration of AP-42 chapter 2.4 (11/98) factors, as adjusted for this landfill according to industry field studies.

   b. Emission Limitation: 47.8 tons of fugitive particulate emissions PE/yr

      Applicable Compliance Method: The permittee shall demonstrate compliance by adding maximum potential emissions from construction fill excavation/loading/unloading; daily cover excavation/loading/unloading; interim cover excavation/loading/unloading; landfill loading/compacting; construction loading/dozing; aggregate loading/unloading; and, road maintenance dozing. The maximum emissions from each fugitive dust operation was calculated by multiplying the applicable emission factor, from Pennsylvania Dept. Env. Prot. form G(A) (June, 2001), by the associated maximum quantities and applying a 75 percent control efficiency. Therefore provided compliance is shown with the requirement

to apply best available control measures compliance with the annual limitation will be assumed.

c. Emission Limitation: Visible fugitive PE shall not exceed 20% opacity, as a 3-minute average from operations not associated asbestos- containing material (ACM).

Applicable Compliance Method
If required, compliance with the visible emission limitation listed above shall be determined in accordance with 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)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

d. Emission Limitation
There shall be no visible emissions from asbestos-containing waste materials (ACM) during on-site transportation, transfer, deposition, or compacting operations.

Applicable Compliance Determination
If required, compliance with the visible emission limitation listed 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.

e. Emission Limitation: 0.99 lb NMOC/hr*, 4.34 tons NMOC/yr and 123.1 lb methane/hr*, 539.18 tons methane/yr

Applicable Compliance Method: Compliance with the hourly allowable NMOC and methane limitations may be determined by multiplying the maximum calculated flare gas stream of 49.5 lbs of NMOC /hr and 6154 lbs of methane /hr by an assumed control factor of (1-0.98), as based on the following:

i. The control efficiency of 98% was based on AP-42, Table 2.4-3, for flares.

ii. The hourly NMOC and methane flow rate was calculated based on equation 1, AP-42, Chapter 2.4 (revised 11/98).

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. (maximum potential emissions will occur in the year 2020)

f. Emission Limitation: 10.16 lb NO/hr*, 44.5 tons NOx/yr

Applicable Compliance Method: Compliance with the hourly allowable NOx limitation may be determined by multiplying a flare design emission factor of 0.068 lb of NOx/mmBtu (AP-42 13.5, 09/91) by a heat value of 1000 Btu/dscf for methane, by a maximum methane flow rate of 2,490 dscfm, and by 60 min/hr, and then dividing by 1,000,000 Btu/mmBtu.

The tons/yr limitation 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. (maximum potential emissions will occur in the year 2020)

g. Emission Limitation: 55.28 lbs CO/hr*, 242.13 tons CO/yr

Applicable Compliance Method: Compliance with the hourly allowable CO limitation may be determined by multiplying a flare design emission factor of 0.37 lb of CO/mmBtu (AP-42 13.5, 09/91) by a heat value of 1000 Btu/dscf for methane, by a maximum methane flow rate of 2,490 dscfm, and by 60min/hr, and then dividing by 1,000,000 Btu/mmBtu.

The tons/yr limitation 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. (maximum potential emissions will occur in the year 2020)

h. Emission Limitation: 1.45 lb HCl/hr*, 6.35 tons HCl/yr

Applicable Compliance Method: Compliance with the hourly allowable HCl limitation may be determined by multiplying the total atomic (molar) chlorine concentrations in the landfill gas of 53,289 ppb by the ratio of molecular weights (36/30) of chlorine and landfill gas, by a landfill gas mass flow rate to the flare of 23,076 lb/hr, and by a 98 percent conversion factor of atomic Cl to HCl, then dividing by 1,000,000,000.

(53,289 ppb, based on consideration of AP-42 chapter 2.4 (11/98) factors, as adjusted for this landfill according to industry field studies)

The tons/yr limitation 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. (maximum potential emissions will occur in the year 2020)

i. Emission Limitation: 2.54 lbs PM_{10}/hr*, 11.12 tons PM_{10}/yr

Applicable Compliance Method: Compliance with the hourly PM_{10} allowable limitation may be determined by multiplying the maximum landfill gas generation rate of 4,980 cfm, 0.50 cubic ft methane/cubic ft of landfill gas, 17 lbs of PM/1,000,000 dscf methane [AP-42, Section 2.4 (11/98)] (all PM is assumed to be PM_{10}) and 60 minutes/hour.

The tons/yr limitation 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. (maximum potential emissions will occur in the year 2020)

j. Emission Limitation: 2.09 lbs SO_2/hr*, 9.14 tons SO_2/yr

Applicable Compliance Method: Compliance with the hourly allowable SO_2 limitation may be determined by using AP-42, Section 2.4, equations 3, 4, & 7 Municipal Solid Waste Landfills [11/98] and the following:

i. CH4 gas generation rate of 4,977 m^3/hr

ii. Sulfur concentration in the landfill gas = 46.9 ppmv

ii. 85% landfill gas collection efficiency (represents worst-case emissions for SO_2)

The tons/yr limitation 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. (maximum potential emissions will occur in the year 2020)

* The hourly emission limitations are based on the emissions unit's potential to emit. (maximum potential emissions will occur in the year 2020) Therefore, no hourly record keeping, monitoring, or deviation reporting, are required to demonstrate compliance with this limitation.

VI. Miscellaneous Requirements

1. Upon closure of the facility, the permittee shall comply with the following provisions of OAC rule 3745-20-07 and shall submit a copy of the records of the asbestos waste disposal locations and quantities to the director (Northwest District Office).

   a. Each owner or operator of an inactive asbestos waste disposal site shall either:

      i. Discharge no visible emissions to the outside air from an inactive waste disposal site; or

      ii. Cover the asbestos-containing waste material with at least six inches of nonasbestos-containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material; or

      iii. Cover the asbestos-containing waste material with at least two feet of compacted nonasbestos-containing material and maintain the cover to prevent exposure of the asbestos-containing waste material.

   b. Unless a natural barrier adequately deters access by the general public, each owner or operator of an inactive asbestos waste disposal site shall install and maintain warning signs and fencing as follows, or comply with section A.VI.1.a.ii. or A.VI.1.a.iii above:

      i. Display warning signs at all entrances and at intervals of three hundred feet or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited. The warning signs must:

         (a) Be posted in such a manner and location that a person can easily read the legend; and

         (b) Conform to the requirements for a twenty inch by fourteen inch upright format warning sign and display the following legend in the lower panel with letter sizes of at least one inch sans serif, gothic, or block. Spacing between any two lines must be at least equal to the height of the upper of the two lines:

         "ASBESTOS WASTE DISPOSAL SITE
         DO NOT CREATE DUST
         BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH"

      ii. Fence the perimeter of the site in a manner adequate to deter access by the general public.

   Upon request and submission of appropriate information, the director will determine whether a fence or a natural barrier adequately deters access by the public.

When requesting a determination from the director on whether a natural barrier adequately deters public access, the permittee shall supply information enabling the director to determine whether a fence or a natural barrier adequately deters access by the general public.

c. The owner or operator may use an alternative control method that has received prior approval of the director rather than comply with the requirements of section A.IV.1.a or A.IV.1.b of these terms and conditions.

d. Each owner or operator of an inactive waste disposal site shall notify the director in writing at least forty-five days prior to excavating or otherwise disturbing or removing any asbestos-containing waste material. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the director at least ten working days before excavation begins. In no event shall excavation begin earlier than the date specified in the original notification. Each owner or operator shall include the following information in the notice:

   i. Scheduled starting and completion dates of the disturbance.

   ii. Reason for disturbing the waste.

   iii. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing material. If deemed necessary, the director may require changes in the emission control procedures to be used.

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

e. Within sixty days of a site becoming inactive, record a notation of the presence of asbestos-containing material on the deed to the facility property and on any other instrument that would normally be examined during the title search; this notation will, in perpetuity, notify any potential purchaser of the property that:

   i. The land has been used for the disposal of asbestos-containing waste material; and

   ii. The survey plot and record of the location and quantity of asbestos-containing waste disposed of within the disposal site required in paragraph (C)(2) of rule 3745-20-06 of the Ohio Administrative Code has been filed with the director; and

   iii. The site is subject to Chapter 3745-20 of the Ohio Administrative Code and 40 CFR Part 61, Subpart M.

2. There shall be no open burning in violation of Ohio Administrative Code rule 3745-19 at this facility.

3. Authority to Enter

   Pursuant to the authority of OAC rule 3745-77-07(C)(2) or ORC section 3704.03(L), any representative of the Director may, upon presentation of proper identification, enter at any reasonable time upon any portion of the property where this landfill is located, including any improvements thereon, to make inspections, take samples, conduct tests, and examine records or reports pertaining to any emissions of air contaminants and any monitoring equipment, emissions control equipment, or methods. No operator or agent of this landfill shall act in any manner to refuse, hinder, or thwart this legal right of entry.

4. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements for 40 CFR Part 60 are also federally enforceable.

6. Compliance with 40 CFR Part 63, Subpart AAAA is determined in the same way it is determined for 40 CFR Part 60, Subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data (see A.III.3) are used to demonstrate compliance with the operating conditions for control systems.

7. In accordance with 40 CFR 63.1960, the permittee shall develop and implement a written startup, shutdown, and malfunction (SSM) plan according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P901 - Solid Waste Landfill with Active Gas Collection System and Open Flare (Administrative modification of PTI #03-13157, issued on 8/11/99, to include asbestos regulations and to add PM_{10} and SO_2 limitations)	OAC rule 3745-20-05	See B.I.2.a
	OAC rule 3745-20-06	See B.I.2.a
	OAC rule 3745-20-07	See B.I.2.a

2. Additional Terms and Conditions

2.a The requirements of this rule are equivalent to the requirements of OAC rule 3745-31-05(A)(3) contained in the State and Federally Enforceable Section of Part III for this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None