



State of Ohio Environmental Protection Agency

Street Address:

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

**RE: FINAL PERMIT TO INSTALL MODIFICATION
WYANDOT COUNTY
Application No: 03-13157**

CERTIFIED MAIL

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
WWW	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

DATE: 2/6/2003

Co. Environmental of Wyandot Sanitary LF
Dennis Gehle
11164 County Road 4
Carey, OH 43316

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

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,

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA

NWDO



**Permit To Install
Terms and Conditions**

**Issue Date: 2/6/2003
Effective Date: 2/6/2003**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 03-13157

Application Number: 03-13157

APS Premise Number: 0388000039

Permit Fee: **\$200**

Name of Facility: Co. Environmental of Wyandot Sanitary LF

Person to Contact: Dennis Gehle

Address: 11164 County Road 4
Carey, OH 43316

Location of proposed air contaminant source(s) [emissions unit(s)]:

**11164 County Road 4
Carey, Ohio**

Description of proposed emissions unit(s):

Administrative Modification to landfill with roadways and parking areas.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

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 Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

8. 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.

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

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

C. Permit To Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PE	59.9
NMOC	42.64
Methane	5289.18
Nitrogen Oxides	44.5
Carbon Monoxide	242.13
Hydrogen Chloride	6.35

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

1. The permittee may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste Landfills, 40 CFR Part 63, Subpart AAAAA. U.S. EPA failed to promulgate this standard by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR Part 63, Subpart B (40 CFR Parts 63.50 through 63.56), the permittee shall submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application shall be submitted in two parts. The deadline to submit the Part I application, as specified in 40 CFR Part 63.53, was May 15, 2002.
2. If the final NESHAP standard is not promulgated by the deadline specified by U.S. EPA, the permittee shall submit the Part II application as specified in 40 CFR Part 63.53. The Part II application shall be submitted within 60 days after the deadline to promulgate the respective standard or by May 15, 2003, whichever is later. It must contain the following information, unless otherwise specified by future U.S. EPA regulations:
 - a. for a new affected source, the anticipated date of startup of operation;
 - b. the hazardous air pollutants (HAPs) emitted by each affected source in the relevant source category and an estimated total uncontrolled and controlled emission rate for HAPs from the affected source;
 - c. any existing federal, State, or local limitations or requirements applicable to the affected source;
 - d. for each affected emission point or group of affected emission points, an identification of control technology in place;
 - e. information relevant to establishing the MACT floor (or MACT emission limitation), and, at the option of the permittee, a recommended MACT floor; and
 - f. any other information reasonably needed by the permitting authority including, at the discretion of the permitting authority, information required pursuant to Subpart A of 40 CFR Part 63.
3. The Part II application for a MACT determination may, but is not required to, contain the following information:
 - a. recommended emission limitations for the affected source and support information (the permittee may recommend a specific design, equipment, work practice, or operational standard, or combination thereof, as an emission limitation);

- b. a description of the control technologies that would be applied to meet the emission limitation, including technical information on the design, operation, size, estimated control efficiency and any other information deemed appropriate by the permitting authority, and identification of the affected sources to which the control technologies must be applied; and
 - c. relevant parameters to be monitored and frequency of monitoring to demonstrate continuous compliance with the MACT emission limitation over the applicable reporting period.
4. If the NESHAP is promulgated before the Part II application is due for the relevant source category, the permittee may be subject to the rule as an existing major source with a compliance date as specified in the NESHAP. If subject, the permittee shall submit the following notifications:
- a. Unless otherwise specified in the relevant Subpart, within 120 days after promulgation of a 40 CFR Part 63 Subpart to which the source is subject, the permittee shall submit an Initial Notification Report that contains the following information, in accordance with 40 CFR Part 63.9(b)(2):
 - i. the name and mailing address of the permittee;
 - ii. the physical location of the source if it is different from the mailing address;
 - iii. identification of the relevant MACT standard and the source's compliance date;
 - iv. a brief description of the nature, design, size, and method of operation of the source, and an identification of the types of emission points within the affected source subject to the relevant standard and the types of HAPs emitted; and
 - v. a statement confirming the facility is a major source for HAPs.
 - b. Unless otherwise specified in the relevant Subpart, within 60 days following completion of any required compliance demonstration activity specified in the relevant Subpart, the permittee shall submit a notification of compliance status that contains the following information:
 - i. the methods used to determine compliance;
 - ii. the results of any performance tests, visible emission observations, continuous monitoring systems performance evaluations, and/or other monitoring procedures or methods that were conducted;
 - iii. the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;
 - iv. the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in the relevant Subpart;

- v. an analysis demonstrating whether the affected source is a major source or an area source;
- vi. a description of the air pollution control equipment or method for each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and
- vii. a statement of whether or not the permittee has complied with the requirements of the relevant Subpart.

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

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F001 - Landfill Roadways and Parking Areas (Administrative modification of PTI #03-13157 issued on 8-11-99) modification to revise emission limitations	OAC rule 3745-31-05 (A)(3)	12.1 tons of PE/year (fugitive)
Paved Roadways and Parking Areas (see section A.1.2.c)	OAC rule 3745-31-05 (A)(3)	no visible particulate emissions except for one minute during any 60-minute period
Paved Roadways and Parking Areas (see section A.1.2.c)	OAC rule 3745-17-07 (B)	best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.I.2.c, A.I.2.e, A.I.2.f, A.I.2.h, A.I.2.j, A.I.2.k, and A.I.2.l)
Paved Roadways and Parking Areas (see section A.1.2.c)	OAC rule 3745-17-08 (A)	see Section A.I.2.b
Paved Roadways and Parking Areas (see section A.1.2.c)	OAC rule 3745-31-05 (A)(3)	see Section A.I.2.a
Unpaved Roadways and Parking Areas (see section A.1.2.d)	OAC rule 3745-31-05 (A)(3)	no visible particulate emissions except for 3 minutes during any 60-minute period
Unpaved Roadways and Parking Areas (see section A.1.2.d)	OAC rule 3745-17-07 (B)	best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.I.2.d, A.I.2.g, A.I.2.h, A.I.2.i, A.I.2.k, A.I.2.l)
Unpaved Roadways and Parking Areas (see section A.1.2.d)	OAC rule 3745-17-07 (B)	see Section A.I.2.b

| OAC rule 3745-17-08 (A)

| see Section A.I.2.b

2. Additional Terms and Conditions

2.a This permit is a modification to PTI #03-13157 (issued on August 11, 1999) to increase allowable emission limitations due to correction/ update of emission factors/ calculations.

2.b The requirements of this rule are less stringent than the requirements established pursuant to OAC rule 3745-31-05.

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

paved roadways:

all paved road segments

paved parking areas:

all paved parking areas

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

unpaved roadways:

all unpaved road segments

unpaved parking areas:

all unpaved parking areas

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

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

- 2.g** The permittee shall employ best 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 permit application, the permittee has committed to treat the unpaved roadways and parking areas with water at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.h** The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved or unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- 2.i** Any unpaved roadway or parking area, which during the term of this permit is paved or takes on the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.
- 2.j** 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.k** Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
- 2.l** Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

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

paved roadways and parking areas

minimum inspection frequency

all paved roadways/parking areas once during each day of operation

unpaved roadways and parking areas minimum inspection frequency

all unpaved roadways/parking areas 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 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.
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 kept separately for (I) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

IV. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and

- b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
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. Compliance with the emissions limitation(s) in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation
12.1 tons of fugitive PE/year

Applicable Compliance Method

The permittee shall demonstrate compliance by applying a 95% control efficiency for use of best available control measure(s) to maximum potential uncontrolled emission rates of 41.5 TPY for paved roadways and parking areas and 200 TPY for unpaved roadways and parking areas. Maximum potential uncontrolled emission rates for paved roadways and parking areas were calculated by multiplying an emission factor of 2.73 lb per vehicle mile traveled [AP-42, section 13.2.1.2 (10/02)] by a maximum annual vehicle miles traveled of 30,400 and dividing by 2000 lbs per ton. Maximum potential uncontrolled emission rates for unpaved roadways and parking areas were calculated by multiplying a 'weighted' emission factor of 8.29 lbs [AP-42, section 13.2.2.2 (10/98)] per vehicle mile traveled by a maximum annual vehicle miles traveled of 48,300 and dividing by 2000 lbs per ton.

- b. Emission Limitation
No visible particulate emissions except for a period of time not to exceed 1 minute during any 60-minute observation period from paved roadways and parking areas

Applicable Compliance Method

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)(1) through (B)(4)(d) of OAC rule 3745-17-03.

- c. Emission Limitation
No visible particulate emissions except for a period of time not to exceed 3 minutes during any 60-minute observation period from unpaved roadways and parking areas

Applicable Compliance Method

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)(1) through (B)(4)(d) of OAC rule 3745-17-03.

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>
F001 - Landfill Roadways and Parking Areas (Administrative modification of PTI #03-13157 issued on 8-11-99) modification to revise emission limitations	None	None

2. **Additional Terms and Conditions**

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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>
P901 - Solid Waste Landfill with Active Gas Collection System and Open Flare (not a Subpart M asbestos landfill) Administrative modification of PTI #03-13157 issued on 8-11-99, modification to revise emission limitations	40 CFR 60.750 et seq. (NSPS Subpart WWW) OAC rule 3745-17-07 (B) OAC rule 3745-17-08 (A) OAC rule 3745-31-05(A)	see Sections A.I.2.b through k, A.II.1 through 6 see Section A.I.2.p see Section A.I.2.p 38.3 tons of fugitive nonmethane organic compounds (NMOC)/year 0.99 lb NMOC/hr from flare, 4.34 tons/yr 4750 tons of fugitive methane/year 123.1 lb methane/hr from flare, 539.18 tons/yr 10.16 lb NO _x /hr from flare, 44.5 tons/yr 55.28 lb CO /hr from flare, 242.13 tons/yr 1.45 lb HCl /hr from flare, 6.35 tons/yr 47.8 tons of fugitive particulate emissions (PE)/year best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Section A.1.2.m)

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

The requirements of this rule also include compliance with the requirements of 40 CFR Part 60 Subpart WWW

2. Additional Terms and Conditions

- 2.a** This permit is a modification to PTI #03-13157 (issued on August 11, 1999) to increase allowable emission limitations due to correction/ update of emission factors/ calculations.
- 2.b** Since the calculated NMOC emission rate for this facility is greater than 50 megagrams per year (Mg/yr), the permittee shall operate a collection and control system that captures the gas generated within the landfill as required below.
- i. An active collection system shall:
 - (a) 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;
 - (b) 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;
 - (c) collect gas at a sufficient extraction rate; and
 - (d) be designed to minimize off-site migration of subsurface gas.
 - ii. A passive collection system shall:
 - (a) comply with the provisions specified in A.I.2.c.i.; and
 - (b) be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR 258.40.
- 2.c** The permittee shall route all the collected gas to an open flare designed and operated in accordance with 40 CFR 60.18:
- i. Flare shall be designed and operated with no visible emissions as determined by the Method 22 of Appendix A of 40 CFR, Part 60, except for a periods not to exceed a total of 5 minutes during any 2 consecutive hours.

- ii. Flare shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of flame.
- iii. Flare shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater (for air-assisted flare), as calculated according to the following equation:

$$H_t = K \times (\text{summation of } i \text{ from } 1 \text{ to } n \text{ for } C_i H_i)$$

where:

$K = \text{constant, } 1.740 \times 10^{-7} [(1/\text{ppm})(\text{g mole/scm})(\text{MJ/Kcal})]$ where the standard temperature for (g mole/scm) is 20 degree Celsius;

$H_t = \text{Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 degree Celsius and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 degree Celsius;}$

$C_i = \text{Concentration of sample component } i \text{ in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 (Incorporated by reference as specified in Sec. 60.17); and}$

$H_i = \text{Net heat of combustion of sample component } i, \text{ kcal/g mole at 25 degree Celsius and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 (incorporated by reference as specified in Sec. 60.17) if published values are not available or cannot be calculated.}$

- iv. Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max} , as determined as follows:

$$V_{\text{max}} = 8.706 + 0.7084 (HT)$$

$V_{\text{max}} = \text{Maximum permitted velocity, m/sec}$

$8.706 = \text{Constant}$

$0.7084 = \text{Constant}$

$HT = \text{The net heating value as determined in paragraph (f)(3).}$

- 2.d** If the permittee seeks to demonstrate compliance with A.I.2.b.i.(d) through the use of a collection system not conforming to the specifications provided in A.I.2.i through A.I.2.k, the permittee shall provide information satisfactory to the Director to demonstrate that off-site migration is being controlled.
- 2.e** The permittee shall place each well or design component as specified in the approved design plan. Each well shall be installed no later than 60 days after the date on which the

initial solid waste has been in place for a period of 5 years or more if active; or 2 years or more if closed or at final grade.

- 2.f** For compliance with the surface methane operational standard as provided in A.II.3, any reading of 500 parts per million (ppm) or more above background at any location shall be recorded as a monitored exceedance and the actions specified in A.I.2.f.i through A.I.2.f.v shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of 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 re-monitored within 10 calendar days of detecting the exceedance.
 - iii. If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in A.I.2.f.v shall be taken, and no further monitoring of that location is required until the action specified in A.I.2.f.v 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 re-monitoring specified in A.I.2.f.ii or A.I.2.f.iii shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in A.I.2.f.iii or A.I.2.f.v shall be taken.
 - v. For any location where the monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance.
- 2.g** For compliance with the surface methane operational standard as provided in A.II.3, the permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.
- 2.h** The provisions of this permit under the authority of 40 CFR, Part 60, Subpart WWW apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

- 2.i** The permittee shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator:
- i. The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.
 - ii. The sufficient density of gas collection devices determined in A.I.2.j.i shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.
- 2.j** The placement of gas collection devices shall control all gas producing areas, except as provided by I and ii below:
- i. Any segregated area of non-degradable material may be excluded from collection if documented as provided under A.III.12. The documentation shall provide the nature, date of deposition, location and amount of non-degradable material deposited in the area, and shall be provided to the Administrator and Director upon request.
 - ii. Any non-productive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1% of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Administrator and Director upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill.

Emissions from each section shall be computed using the following equation:

$$Q_i = 2 \times k \times L_o \times M_i \times (e^{(-k t_i)} \times (C_{nmoc}) \times (3.6 \times 10^{(-9)}))$$

where:

Q_i = NMOC emission rate from the I th section, in megagrams per year

k = methane generation rate constant, in year ⁽⁻¹⁾

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

M_i = mass of the degradable solid waste in the I th section, in megagram

t_i = age of the solid waste in the I th section, in years

Cnmoc = concentration of nonmethane organic compounds, in parts per million by volume

3.6×10^{-9} = conversion factor

- iii. The values for k, Lo, and Cnmoc determined in field testing shall be used, if field testing has been performed in determining the NMOC emission rate or the radii of influence. If field testing has not been performed, the default values for k, Lo and Cnmoc are provided below:

$k^* = 0.05$ per year

Lo = 170 cubic meters per megagram

Cnmoc = 4,000 parts per million by volume as hexane

* For landfills located in geographical areas with a thirty-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

- 2.k** When the permittee constructs new gas collection devices, the permittee shall use the following equipment or procedures:

- i. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.
- ii. Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.
- iii. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC,

HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

- 2.1** 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:
- construction fill excavation/ loading /unloading
 - daily cover excavation/ loading /unloading
 - interim cover excavation/ loading /unloading
 - landfill loading /compacting
 - construction loading /dozing
 - aggregate loading /unloading
 - road maintenance dozing
- 2.m** 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 watering as necessary and use of alternative landfill cover if necessary to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.n** The above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the fugitive dust operation/sources until further observation confirms that use of the control measure(s) is unnecessary.
- 2.o** 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.p** The requirements of this rule are less stringent than the requirements established pursuant to OAC rule 3745-31-05.

II. Operational Restrictions

1. The permittee of an MSW landfill with a gas collection and control system used to comply with the provisions of A.I.2.c 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. These records shall be submitted with the annual reports as provided in A.IV.2.)

- 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 shut down to accommodate for declining flows. All design changes shall be approved by the Director.)
 2. 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 percent or an oxygen level less than 5 percent. The permittee may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.
 - a. The nitrogen level shall be determined using 40 CFR, Part 60, Appendix A, Method 3C, unless an alternative test method is approved by the Administrator.
 - b. The oxygen level shall be determined by an oxygen meter using 40 CFR, Part 60, Appendix A, Method 3A, unless an alternative test method is approved by the Administrator, except that:
 - i. The span shall be set so that the regulatory limit is between 20 and 50 percent of the span.
 - ii. A data recorder is not required.
 - iii. Only two calibration gases are required, a zero and span, and ambient air may be used as the span.
 - iv. A calibration error check is not required.
 - v. The allowable sample bias, zero drift, and calibration drift are plus or minus 10 percent.
 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. To determine if this level is exceeded, the permittee shall conduct surface testing on a quarterly basis around the perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The permittee may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

4. The permittee shall operate the gas collection and control system such that all collected gases are vented to a control system designed and operated in compliance with A.I.2.d. 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 1 hour.
5. The permittee shall operate the control and/or treatment system at all times when the collected gas is routed to the system.
6. If monitoring demonstrates that the operational requirements in A.II.1 through A.II.3 are not met, corrective action shall be taken as specified in A.III.1, A.III.2, A.I.2.g, and/or A.I.2.h. If corrective actions are taken as specified, the monitored exceedance is not a violation of the operational requirements.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall install a sampling port and a thermometer or other temperature measuring device, or an access port for temperature measurements at each wellhead.
 - a. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with A.I.2.b.i.(c), the permittee shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under A.II.1. If negative pressure cannot be achieved without excess air infiltration 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 measurement of positive pressure. 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 Director for approval.
 - b. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the permittee shall monitor each well monthly for temperature and nitrogen or oxygen as provided in A.II.2. 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 Director for approval.
2. The permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in below:

- a. 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.
 - b. 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.
 - c. The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of Appendix A of 40 CFR, Part 60, except that "methane" shall replace all references to VOC.
 - d. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.
 - e. To meet the performance evaluation requirements in section 3.1.3 of Method 21 of Appendix A of 40 CFR, Part 60, the instrument evaluation procedures of section 4.4 of Method 21 of Appendix A of 40 CFR, Part 60 shall be used.
 - f. The calibration procedures provided in section 4.2 of Method 21 of Appendix A of 40 CFR, Part 60 shall be followed immediately before commencing a surface monitoring survey.
3. The permittee shall 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.
 - b. A device that records flow to or bypass of the flare. The permittee shall either:
 - i. calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or
 - ii. 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.
4. The permittee shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in this permit. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

5. The permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which includes: the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy 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.
6. The permittee shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed below as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal:
 - a. The maximum expected gas generation flow rate as calculated.
 - b. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined.
 - c. Where the permittee seeks to demonstrate compliance with A.I.2.d.i through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emissions readings, heat content determinations, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.
7. The permittee of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in A.III.1 through A.III.3 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.
8. The permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under A.III.1 through A.III.3.
9. The permittee shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under A.III.3, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.
10. The permittee shall keep 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.
11. The permittee shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under A.I.2.e. of this permit.

- 12. The permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of nondegradable waste excluded from collection as provided in A.I.2.j.i as well as any nonproductive areas excluded from collection as provided in A.I.2.j.ii.
- 13. The permittee shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in A.II.1 through A.II.6, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.
- 14. 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:

<u>landfill fugitive dust operations/sources</u>	<u>minimum inspection frequency</u>
construction fill excavation/ loading /unloading	once during each day of operation
daily cover excavation/ loading /unloading	once during each day of operation
interim cover excavation/ loading /unloading	once during each day of operation
landfill loading /compacting	once during each day of operation
construction loading /dozing	once during each day of operation
aggregate loading /unloading	once during each day of operation
road maintenance dozing	once during each day of operation

- 15. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures for particulate emissions. The inspections shall be performed during representative, normal operating conditions. No inspection shall be necessary for a landfill fugitive dust operation/source that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next inspection is within one week.
- 16. 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.
- 17. The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
 - c. the dates the control measure(s) was (were) implemented; and

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

The information in Section A.III.17.d shall be kept separately for each landfill fugitive dust operation/source identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

IV. Reporting Requirements

1. The permittee shall submit a closure report to the Administrator and Director within 30 days of waste acceptance cessation. The Administrator or Director may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Administrator and Director, no additional wastes may be placed into the landfill without filing a notification of modification. A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator or Director may request additional relevant information subsequent to this notice.
2. The permittee shall submit to the Director annual reports of the recorded information in A.IV.2.a through A.IV.2.f. For flares, reportable exceedances are defined under A.III.3. The report shall be submitted by January 31 of each year and shall cover the previous calendar year.
 - a. Value and length of time for each exceedance of the applicable parameters monitored under A.III.1.
 - b. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under A.III.3.
 - c. Description and duration of all periods when the control device 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 ppm methane concentration as provided in A.II.3 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.
3. 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; and
- b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.

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

V. Testing Requirements

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

- a. Emission Limitation
47.8 tons of fugitive PE/year

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 potential emission rate for each of these operational categories was calculated by multiplying the applicable emission factor, from Pennsylvania Dept. Env. Prot. form G(A) (June, 2001), by the applicable unit quantities (in daily or annual maximums - see application), and applying a 75 percent control efficiency.

- b. Emission Limitation:
38.3 tons of fugitive nonmethane organic compounds (NMOC)/year
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 (16.4×10^6 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.

c. Emission Limitation:

0.99 lb NMOC/hr from flare*

123.1 lb methane/hr from flare*

Applicable Compliance Method:

Compliance 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).

d. Emission Limitation:

10.16 lb NO_x /hr from flare*

Applicable Compliance Method:

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

e. Emission Limitation:

55.28 lb CO /hr from flare*

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 flowrate of 2,490 dscfm, and by 60, and then dividing by 1,000,000.

- f. Emission Limitation:
1.45 lb HCl /hr from flare*

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)

- g. Emission Limitations:
4.34 tons NMOC /yr from flare
539.18 tons methane /yr from flare
44.5 tons NO_x /yr from flare
242.13 tons CO /yr from flare
6.35 tons HCl /yr from flare

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

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

Applicable Compliance Method:

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

* 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

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>
P901 - Landfill with Active Gas Collection System and Open Flare (Administrative modification of PTI #03-13157 issued on 8-11-99) modification to revise emission limitations	None	None

2. **Additional Terms and Conditions**

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None