



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL CERTIFIED MAIL
CRAWFORD 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: 03-17000
Fac ID: 0317010039**

DATE: 10/20/2005

Crawford County Landfill
Jack Stacy
5128 Lincoln Highway East
Bucyrus, OH 44820

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, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA

NWDO



**Permit To Install
Terms and Conditions**

**Issue Date: 10/20/2005
Effective Date: 10/20/2005**

FINAL PERMIT TO INSTALL 03-17000

Application Number: 03-17000
Facility ID: 0317010039
Permit Fee: **\$400**
Name of Facility: Crawford County Landfill
Person to Contact: Jack Stacy
Address: 5128 Lincoln Highway East
Bucyrus, OH 44820

Location of proposed air contaminant source(s) [emissions unit(s)]:
**5128 Lincoln Highway East
Bucyrus, Ohio**

Description of proposed emissions unit(s):
Addition of construction and demolition debris landfill to existing sanitary landfill.

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 Record keeping 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 record keeping 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 record keeping 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 (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.8 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, record keeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, 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. If this permit is for an emissions unit located at a Title V facility, then 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.
- d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

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 re-issuance, or modification
- 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, 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 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.

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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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

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 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 and the State and by citizens (to the extent allowed by section 304 of the Act) 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.

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- 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 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

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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.

13. Permit-To-Install

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

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

1. Compliance Requirements

The emissions unit(s) identified in this Permit 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 record keeping 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 record keeping 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,

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which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, 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. Authorization To Install or Modify

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit 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)

This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. 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 this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit 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

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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., postmarked), 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>
Fugitive PE	40.12
Fugitive PM ₁₀	22.78
NMOC	54.9
Methane	6912.0

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F001 - Paved and unpaved roadways and parking areas (modification of PTI 03-13928 issued on 4/1/03)	OAC rule 3745-31-05(A)(3)	8.60 tons/year of fugitive particulate emissions (PE)
	OAC rule 3745-31-05(A)(3)	2.22 tons/year of fugitive particulate matter of 10 microns or less (PM10)
paved roadways and parking areas (See A.1.2.a)	OAC rule 3745-31-05(A)(3)	no visible PE except for one minute during any 60-minute period
	OAC rule 3745-17-07(B)	best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (See A.1.2.c, and A.1.2.e through A.1.2.i)
	OAC rule 3745-17-08(B)	See A.1.2.j
	OAC rule 3745-17-08(B)	See A.1.2.k
unpaved roadways and parking areas (See A.1.2.b)	OAC rule 3745-31-05(A)(3)	no visible PE except for 3 minutes during any 60-minute period
	OAC rule 3745-17-07(B)	best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (See A.1.2.d through A.1.2.i)
	OAC rule 3745-17-07(B)	See A.2.j
	OAC rule 3745-17-08(B)	See A.2.k

2. Additional Terms and Conditions

- 2.a** 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 roadways

paved parking areas: all paved parking area

- 2.b** 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 roadways

unpaved parking areas: none

- 2.c** 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 permittee's permit application, the permittee has committed to treat the paved roadways and parking areas by watering and sweeping at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.d** The permittee shall 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 permittee's permit application, the permittee has committed to treat the unpaved roadways and parking areas with watering and surface improvement at sufficient frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.e** 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.f** Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(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.g** 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.h** 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.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 best available technology requirements of OAC rule 3745-31-05.
- 2.j** This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).
- 2.k** This facility is not located within an "Appendix A" areas 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).

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

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

paved roadways and parking areas
all

minimum inspection frequency
once during each day of operation

V. Testing Requirements

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

- a. Emission Limitation:
8.60 tons/year of fugitive PE
2.22 tons/year of fugitive PM10

Applicable Compliance Method:

Compliance with fugitive PE and PM10 limitations shall be determined by using the emission factor equations in Section 13.2.1 (for paved roadways) and Section 13.2.2 (for unpaved roadways), in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 12/03). Should further updates in AP-42 occur, the most current equations shall be used. These emission limits were based on the maximum vehicle miles traveled per year, and a 90% control efficiency for PE and PM10.

- b. Emission Limitation:
No visible PE from the paved roadways and parking areas except for one minute during any 60-minute period.

Applicable Compliance Method:

If required, compliance with the visible PE 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, 2002, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

- c. Emission Limitation:
No visible PE from the unpaved roadways and parking areas except for three minutes during any 60-minute period.

Applicable Compliance Method:

If required compliance with the visible PE 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, 2002, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

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Emissions Unit ID: F001

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 - Paved and unpaved roadways and parking areas (modification of PTI 03-13928 issued on 4/1/03)	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

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Crawl

PTI A

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Emissions Unit ID: **F001**

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>
P901 - Municipal solid waste (MSW) landfill operations and construction and demolition debris (C&DD) landfill operations (modification of PTI 03-13928 issued on 4/1/03 for the addition of C&DD operations)	OAC rule 3745-31-05(A)(3)

Crawl

PTI A

Issued: 10/20/2005

Emissions Unit ID: P901

OAC rule 3745-17-07(B)

Applicable Emissions
Limitations/Control Measures

OAC rule 3745-17-08(B)

54.9 tons/year (50.0 megagrams)
of fugitive nonmethane organic
compounds (NMOC)

40 CFR, Part 60, Subpart
WWW

6,912.0 tons/year of fugitive
methane

31.52 tons/year of fugitive
particulate emissions (PE)

20.56 tons/year of fugitive
particulate matter of 10 microns
or less (PM10)

best available control measures
that are sufficient to minimize or
eliminate visible emissions of
fugitive dust (see A.I.2.c through
A.I.2.f)

Visible fugitive PE 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.

See A.I.2.a

See A.I.2.b

See Sections A.I.2.g, A.III.1,
A.IV.1 through A.IV.4, and A.V.1
through A.V.4

2. Additional Terms and Conditions

- 2.a** 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.b** 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 emission unit is exempt from the requirements of OAC rule 3745-17-08(B).
- 2.c** The landfill fugitive dust operations/sources that are covered by this permit and subject to the requirements of OAC rule 3745-31-05(A)(3) are listed below:
- i. MSW landfill operations:
 - daily cover and handling and placement
 - solid waste handling (dumping)
 - spreading, grading and compaction
 - truck loading and unloading
 - bulldozing
 - storage pile activities (loading, unloading and wind erosion)
 - ii. C&DD landfill operations:
 - daily cover and handling and placement
 - solid waste handling (dumping)
 - spreading, grading and compaction
 - truck loading and unloading
 - bulldozing
 - storage pile activities (loading, unloading and wind erosion)
- 2.d** The permittee shall employ best available control measures for the above 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 the minimization of drop heights where applicable and watering at sufficient frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.e** The above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring

Emissions Unit ID: **P901**

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.f** 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.g** The MSW landfill has a design capacity greater than 2.5 million megagrams and 2.5 million cubic meters. As a result, the permittee shall calculate a NMOC emission rate using the procedures specified in Section A.V.1. The NMOC emission rate shall be recalculated annually, except as provided in Section A.IV.3.
- 2.h** This facility shall not accept for disposal any NESHAP Regulated Asbestos Containing Material (RACM) as defined in the NESHAP for Asbestos, 40 CFR Part 61, Subpart M, section 141 amended November 20, 1990 or any subsequent revisions. This regulation defines RACM as "(a) Friable asbestos material, (b) Category I nonfriable asbestos containing material that has become friable, (c) Category I nonfriable asbestos containing material that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II nonfriable asbestos containing material that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart."
- 2.i** In addition, this facility shall not accept for disposal any Category II nonfriable asbestos containing material.
- 2.j** For asbestos materials, this facility shall be limited to accepting Category I nonfriable asbestos containing material that have not or will not be subjected to sanding, grinding, cutting or abrading.
- 2.k** The facility shall ensure that any Category I nonfriable asbestos containing material which has not or will not be subjected to sanding, grinding, cutting, or abrading shall not become friable during processing at the landfill. Any asbestos containing material that is or becomes friable is subject to the NESHAPS regulation cited in additional term and condition A.2.i.
- 2.l** All terms stated in Additional Special Terms and Conditions numbers A.I 2.h. through A.I.2.I. are defined as in 40 CFR 61.141 amended November 20, 1990 or any subsequent revisions.

- 2.m** There shall be no open burning in violation of Ohio Administrative code 3745-19 at this facility.
- 2.n** In order to minimize the formation of hydrogen sulfide emissions, the permittee shall maintain a facility leachate collection and disposal system to assure that leachate over the in situ and/or added geological material or constructed liner never exceeds a depth of one foot, excluding the leachate sump collection point(s).
- 2.o** In order to minimize the formation of hydrogen sulfide emissions, the permittee shall not recirculate leachate on any portion of this facility without prior written approval from Ohio EPA.
- 2.p** In order to minimize the formation of hydrogen sulfide emissions, the permittee shall not use leachate as a dust suppressant without prior written approval from Ohio EPA.
- 2.q** Within 45 days of Ohio EPA notifying the permittee that measured concentrations of hydrogen sulfide exceeded 30 parts per billion (ppb) as a rolling 1-hour average at or beyond the facility property line, the permittee shall submit to Ohio EPA, Northwest District Office an approvable continuous perimeter monitoring plan.
- 2.r** Within 30 days of approval of the continuous perimeter monitoring plan, the permittee shall implement the plan, installing the perimeter monitors.
- 2.s** Within 60 days of measured ambient concentrations of hydrogen sulfide exceeding 30 ppb as a rolling 1-hour average five (5) times or more, or 10 ppb as a rolling 24-hour average two (2) times or more in any 7-day period beyond the facility property line, the permittee shall submit to Ohio EPA, Northwest District Office an approvable design for a gas control system. The gas control system shall not be installed without first verifying any permitting requirements with Ohio EPA.
- 2.t** Within 60 days of approval of the gas control system, the permittee shall install, maintain, and operate a gas control system pursuant to these terms to the following levels at or beyond the facility property line:
- i. Hydrogen sulfide emissions shall not exceed 30 parts ppb as a 1-hour

rolling average; and

ii. Hydrogen sulfide emissions shall not exceed 10 ppb as a 24-hour rolling average.

II. Operational Restrictions

- 1. The permittee shall be limited to accepting no more than 100,000 tons of C &DD material (as defined in Ohio Revised Code 3714.01 (C)) per calendar year.

III. Monitoring and/or Record keeping Requirements

- 1. The permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity, the current amount of solid waste in place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they retrievable within 4 hours. Either paper or electronic formats are acceptable.
- 2. 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>MSW landfill fugitive dust operations/sources</u>	<u>minimum inspection frequency</u>
daily cover and handling and placement operation	once during each day of operation
solid waste handling (dumping) operation	once during each day of operation
spreading, grading and compaction operation	once during each day of operation
truck loading and unloading operation	once during each day of operation
bulldozing operation	once during each day of operation
storage pile activities (loading, unloading, & wind erosion) operation	once during each day of operation

<u>C&DD landfill fugitive dust operations/sources</u>	<u>minimum inspection frequency</u>
daily cover and handling and placement operation	once during each day of operation
solid waste handling (dumping) operation	once during each day of operation
spreading, grading and compaction operation	once during each day of operation
truck loading and unloading operation	once during each day of operation

	operation	
bulldozing		once during each day of
		operation
storage pile activities (loading,		once during each day of
	operation	
unloading, & wind erosion)		

3. 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.
4. 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.
5. 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.5.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.

6. The permittee shall maintain daily records of the following information:
 - a. The amount of C&DD material accepted by the landfill as defined in Ohio

Revised Code 3714.01 (C), in tons per day.

b. The total annual, year to date, amount of C&DD material accepted by the landfill as defined in Ohio Revised Code 3714.01 (C), in tons per year (sum of e for each calendar day to date from January to December).

7. If the permittee is required to install an ambient hydrogen sulfide emissions monitoring network for this facility, pursuant to A.I.2.q. and A.I.2.r of these terms, the permittee shall establish and operate the monitors pursuant to this term.

The network shall be equipped with hydrogen sulfide emissions samplers capable of continuously sampling the ambient air. The number and location of monitoring sites shall be based on accepted modeling practice and shall adequately monitor areas of maximum impact of hydrogen sulfide emissions at or beyond the facility property line. Determination of the hydrogen sulfide emissions sampling locations shall be coordinated with, and subject to the prior approval of Ohio EPA. Within 15 days of Ohio EPA's request, the permittee shall submit a plan describing the proposed monitoring network. This plan shall provide documentation detailing the criteria and reasoning for the number and location of monitoring sites.

Following approval of the hydrogen sulfide emissions sampling network plan, 15 days will be allowed to locate the samplers in accordance with the plan. All samplers shall be sited and located in accordance with the requirements of the 40 CFR Part 58, Appendix E, and any subsequent amendments. Upon request, variation from this standard may be approved by Ohio EPA.

The monitor shall be of an automated and continuous method that measures the concentration of sulfur dioxide in the ambient air. The H₂S monitor will have an H₂S to SO₂ converter integrated within an SO₂ analyzer. H₂S readings will be the result of converting H₂S in the sample to SO₂ with subsequent detection by the analyzer using: $H_2S + 3/2(O_2) \rightarrow SO_2 + H_2O$. Detection of sulfur dioxide shall be based upon the measurement of the fluorescence of sulfur dioxide produced by its absorption of ultraviolet radiation in the 2300 Å - 1900 Å region. The perimeter monitors shall meet reference or equivalent method criteria for SO₂ as specified in 40 CFR Part 53. Proof of meeting these criteria shall consist of the monitor being designated either reference or equivalent for SO₂ by the U.S. Environmental Protection Agency. The monitor's designation number shall be submitted as demonstrating this term.

Upon request, Ohio EPA will provide the permittee with a copy of Ohio EPA's H₂S analyzer specifications as they are written in Ohio EPA's request for quote (RFQ) number RFQ01_H₂S_2005, as approved by U.S. EPA, for use as a reference.

8. If the permittee is required to install an ambient hydrogen sulfide emissions monitoring network for this facility, pursuant to A.I.2.q. and A.I.2.r of these terms, the permittee

shall establish and operate a meteorological (met) station for this facility pursuant to this term.

The met station shall be capable of continuously monitoring temperature, wind speed and direction, and barometric pressure. The number and location of met stations shall be based on accepted modeling practice and shall adequately monitor weather at the facility, and be representative of the met conditions affecting the transport of emissions from the sources of hydrogen sulfide. Determination of the met station location(s) shall be coordinated with, and subject to the prior approval of Ohio EPA. Within 15 days of receiving notification that the permittee must install a met station pursuant to these terms, the permittee shall submit a plan describing the proposed met station(s) location(s). This plan shall provide documentation detailing the criteria and reasoning for the number and location of the met station(s).

Following approval of the met station location(s), 15 days will be allowed to locate the met station(s) in accordance with the plan. All met station(s) shall be sited and located in accordance with the requirements of EPA-454/R-99-005, Meteorological Monitoring Guidance for Regulatory Modeling Applications, February 2000 and or, EPA-450/4-87-007, Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD), May 1987. Upon request, variation from this standard may be approved by Ohio EPA.

- a. The met station shall meet the following criteria:
 - i. The met station shall be capable of accurately measuring temperature, wind speed, wind direction, and barometric pressure on a continuous basis;
 - ii. The met station shall record wind direction in one degree (1°) increments;
 - iii. The met station shall be equipped with a data recording device capable of recording each reading; and
 - iv. The met station shall be able to sample and record measurements at least 360 times per hour and generate hourly average data for all parameters as well as standard deviation and turbulence wind data for use in the calculation of atmospheric stability.

Upon written approval from Ohio EPA, the permittee may use representative continuous barometric pressure data which is available from a met station located in close proximity to the facility.

9. The monitoring devices and recorders required by this permit shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals, or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
10. An operator's log book shall be maintained for each site location with a format and content as specified in guidance provided by Ohio EPA.
11. The Ohio EPA Air Monitoring Section and Ohio EPA District Office and/or local air agency personnel shall be provided with access to each site location. The site operator and/or supervisor shall accompany the Air Monitoring Section, Ohio EPA District Office and/or local air agency personnel on any site inspection or audit, and respond to inquiries regarding instrument operations and maintenance.

Appropriate corrective actions must be taken by the permittee following the identification of any problem by the independent auditor (when an auditor is hired by the permittee to maintain the permittee's hydrogen sulfide ambient air monitoring network), or Air Monitoring Section, Ohio EPA District Office and/or local air agency personnel.

12. The permittee shall continue to operate the hydrogen sulfide ambient monitoring network as described in the permit condition until written approval from the director to discontinue monitoring is received. In determining such a discontinuation, the Director shall consider the concentrations measured by the monitors, the trends in air quality concentrations, and the value of the air quality data in fulfilling the goals and requirements of this permit.
13. The permittee shall collect and record the following information each day:
 - a. The depth of leachate on the landfill liner;
 - b. Whether leachate needed to be removed to maintain <1 foot of head on the in situ liner;
 - c. Documentation as to where any removed leachate was shipped;
 - d. The depth of leachate after removal; and
 - e. Whether leachate was recirculated.

The permittee may, upon receipt of written approval from the Ohio EPA, 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.

IV. Reporting Requirements

1. The permittee shall submit an annual NMOC emission rate report to the Director, except as provided for in Section A.IV.3. The Director may request such additional information as may be necessary to verify the reported NMOC emission rate.
2. The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formulas and procedures provided in Section A.V.1.
3. If the estimated NMOC emission rate as reported in the annual report is less than 50 megagrams per year in each of the next 5 consecutive years, the permittee may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report, as per 40 CFR Part 60.757 (b)(1)(ii). This estimate shall include the current amount of solid waste in place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Northwest District Office. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Northwest District Office. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.
4. The NMOC emission rate report shall include all the data, calculations, sample reports, and measurements used to estimate the annual or 5-year emissions.
5. The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. Each day during which an inspection was not performed by the required frequency; 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.

6. The permittee shall submit annual deviation (excursion) reports that identify any

exceedances of the annual material C&DD acceptance rates, as well as the corrective actions that have been taken to achieve compliance. If no deviations occurred during the calendar year, the permittee shall submit an annual report which states that no deviations occurred during the calendar year. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

7. If the permittee is required to install an ambient hydrogen sulfide emissions monitoring network for this facility, the permittee shall establish and operate a meteorological (met) station for this facility pursuant to this term.

All air quality monitoring and met data and a summary report shall be reported to Ohio EPA, Northwest District Office, annually. All such data shall be submitted electronically in a commonly used spreadsheet-compatible format; the summary report shall be submitted in hardcopy. Upon request by Ohio EPA Northwest District Office, more timely data shall be made available. The following information shall be submitted as part of the electronic report:

- a. Continuous hydrogen sulfide emissions readings;
 - b. 1- and 24-hour rolling hydrogen sulfide emissions averages;
 - c. Continuous temperature, wind speed and direction, and barometric pressure;
 - d. 1- and 24-hour rolling averages for temperature, wind speed and direction, and barometric pressure; and
 - e. Corresponding times and dates.
8. If the permittee is required to install an ambient hydrogen sulfide emissions monitoring network for this facility, the permittee shall submit deviation reports that identify any of the following occurrences:
 - a. Each occurrence when data from the H₂S monitoring network is lost;
 - b. Each occurrence when data from the met station is lost;
 - c. Any exceedances of the maximum allowable hydrogen sulfide levels allowed pursuant to this permit;
 - d. The beginning and ending dates and times of each occurrence;

- e. For each exceedance the correlating weather data;
- f. Any known causes for the exceedences (*i.e.*, gas control system maintenance or malfunction); and
- g. Any corrective measures taken to return to compliance.

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. The permittee shall calculate the NMOC emission rate using either the equation provided in Section A.V.1.a or the equation provided in Section A.V.1.b. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in Section A.V.1.a, for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k , 170 cubic meters per megagram for L_0 , and the average C_{NMOC} from collected samples as determined by the procedures specified in Section A.V.2. 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.
 - a. The following equation shall be used if the actual year-to-year solid waste acceptance rate is known:

$$M_{NMOC} = \sum_{i=1}^n 2k L_0 M_i (e^{-k t_i}) C_{NMOC} (3.6 \times 10^{-9})$$

Where:

M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year
 k = methane generation rate constant, year⁻¹
 L_0 = methane generation potential, cubic meters per megagram solid waste
 M_i = mass of solid waste in the i^{th} section, megagrams
 t_i = age of the i^{th} section, years
 C_{NMOC} = concentration of NMOC, parts per million by volume as hexane
 3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if documentation of the nature and amount of such wastes is maintained.

- b. The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown:

$$M_{\text{NMOC}} = 2L_oR(e^{-kc} - e^{-kt})C_{\text{NMOC}}(3.6 \times 10^{-9})$$

Where:

M_{NMOC} = mass emission rate of NMOC, megagrams per year

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

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, year⁻¹

t = age of landfill, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

c = time since closure, years; for active landfill $c=0$ and $e^{-kc}=1$

3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value of R , if documentation of the nature and amount of such wastes is maintained.

2. The permittee shall determine the NMOC concentration using the following sampling procedure. The permittee shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 sample probes are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of Appendix A of 40 CFR Part 60. Method 18 of Appendix A of 40 CFR Part 60 may be used to analyze the samples collected by the Method 25 or 25C sampling procedure. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the

cylinder approaches ambient pressure where measurement accuracy diminishes. If using Method 18, the permittee must identify all compounds in the sample and, as a minimum, test for those compounds published in the most recent Compilation of Air Pollutant Emission Factors (AP-42), minus carbon monoxide, hydrogen sulfide, and mercury. As a minimum, the instrument must be calibrated for each of the compounds on the list. Convert the concentration of each Method 18 compound to C_{NMOC} as hexane by multiplying by the ratio of its carbon atoms divided by six. The permittee must divide the NMOC concentration from Method 25 of 25 C of Appendix A of 40 CR Part 60 by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe hectare requirement. For active collection systems, samples may be collected from the common header pipe before the gas moving or condensate removal equipment. For these systems, a minimum of three samples must be collected from the header pipe.

The permittee shall retest the site-specific NMOC concentration every 5 years using the methods specified above.

3. If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the permittee shall either:
 - a. Determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of appendix A in 40 CFR Part 60.

OR

- b. Submit a collection and control system design plan prepared by a professional engineer to the Northwest District Office within one year in accordance with 40 CFR 60.752(b)(2); AND
- c. Install a collection and control system that captures the gas generated within the landfill, as required by 40 CFR 60.752 (b)(2)(ii)(A) or (B) and (b)(2)(iii) within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year; AND
- d. Submit a Permit to Install (PTI) application for a modification of the MSW landfill

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to address new source review issues associated with the installation of the collection and control system.

4. If the resulting mass emission rate calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the permittee shall comply with the requirements of Sections A.V.3.b, A.V.3.c, and A.V.3.d.
5. 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:
54.9 tons of fugitive NMOC/year

Applicable Compliance Method:
The permittee shall demonstrate compliance with the above emission limitation through the annual NMOC emission rate report required in Section A.IV.1.

- b. Emission Limitation:
6,912.0 tons/year of fugitive methane

Applicable Compliance Method:
The permittee shall demonstrate compliance through calculations using the equations in AP-42, Section 2.4, equation #1 and #4 (dated 11/98).

- c. Emission Limitation:
31.52 tons/year of fugitive PE
20.56 tons/year of fugitive PM10

Applicable Compliance Method:
Compliance with fugitive PE and PM10 limitations shall be determined by calculations using the information in the table below. These emission limitations were based on a maximum of 143,000 tons per year of MSW received and 71,500 tons per year of C&DD waste received.

Activity	Operating Rate	PE Emission Factor (PM10 scaling/ratio factor)	Source of Emission Factor or Equation	Control Efficiency	Total Emissions (tons/year)
(MSW Landfill) Daily Cover Handling & Placement	2 hrs/day and 286 days/yr	17.1 lbs/hr (0.75 lb PM10 per lb PE)	AP-42, Section 11.9-1 (7/98) [bulldozing overburden]	NA	PE - 4.89 PM10 - 3.67

(MSW Landfill) Solid Waste Handling (dumping)	143,000 tons/yr (500 tons/day x 286 days/yr)	0.15 lb/ton (0.50 lb PM10 per lb PE)	AP-42, Section 13.2.4-3 (1/95)	50%	PE - 5.36 PM10 - 2.55
(MSW Landfill) Spreading, Grading & Compaction	12 hrs/day and 286 days/yr	2.67 lbs/hr (0.75 lb PM10 per lb PE)	AP-42, Section 11.9-1 (7/98) [bulldozing overburden]	NA	PE - 4.58 PM10 - 3.44
(MSW Landfill) Truck Loading	202,500 tons/yr (1500 yd ³ x 90 days/yr x 1.5 tons/yd ³)	0.045 lb/ton (0.75 lb PM10 per lb PE)	AP-42, Section 11.9-1 (7/98)	90%	PE - 0.46 PM10 - 0.34
(MSW Landfill) Truck Unloading	202,500 tons/yr	0.00035 lb/ton (0.75 lb PM10 per lb PE)	AP-42, Section 13.2.4-3 (1/95)	NA	PE - 0.035 PM10 - 0.03
(MSW Landfill) Bulldozing	3 pieces of equipment, 10 hrs/day and 90 days/yr	17.1 lbs/hr (0.75 lb PM10 per lb PE)	AP-42, Section 11.9-1 (7/98) [bulldozing overburden]	90%	PE - 2.31 PM10 - 1.73
(MSW Landfill) Storage Pile Loading	14,847.2 tons/yr	0.00035 lb/ton (1 lb PM10 per 2.1 lb PE)	AP-42, Section 13.2.4-3 (1/95)	50%	PE - 0.0013 PM10 - 0.0006
(MSW Landfill) Storage Pile Unloading	14,847.2 tons/yr	0.00035 lb/ton (1 lb PM10 per 2.1 lb PE)	AP-42, Section 13.2.4-3 (1/95)	50%	PE - 0.0013 PM10 - 0.0006
(MSW Landfill) Storage PileWind Erosion	0.134 acres and 8760 hrs/yr	7.2 lbs/acre-hr (1 lb PM10 per 2.1 lb PE)	AP-42, Section 11.9-1 (7/98)	50%	PE - 2.11 PM10 - 1.00

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(C&DD Landfill) Daily Cover Handling & Placement	1 hrs/day and 286 days/yr	17.1 lbs/hr (0.75 lb PM10 per lb PE)	AP-42, Section 11.9-1 (7/98) [bulldozing overburden]	NA	PE - 2.45 PM10 - 1.83
(C&DD Landfill) Solid Waste Handling (dumping)	71,500 tons/yr (250 tons/day x 286 days/yr)	0.15 lb/ton (1 lb PM10 per 2.1 lb PE)	AP-42, Section 13.2.4-3 (1/95)	50%	PE - 2.68 PM10 - 1.28
(C&DD Landfill) Spreading, Grading & Compaction	12 hrs/day and 286 days/yr	2.67 lbs/hr (0.75 lb PM10 per lb PE)	AP-42, Section 11.9-1 (7/98) [bulldozing overburden]	NA	PE - 4.58 PM10 - 3.44
(C&DD Landfill) Truck Loading	101,250 tons/yr (1500 yd ³ x 45 days/yr x 1.5 tons/yr)	0.045 lb/ton (0.75 lb PM10 per lb PE)	AP-42, Section 11.9-1 (7/98)	90%	PE - 0.23 PM10 - 0.17
(C&DD Landfill) Truck Unloading	101,500 tons/yr	0.00035 lb/ton (0.75 lb PM10 per lb PE)	AP-42, Section 13.2.4-3 (1/95)	NA	PE - 0.018 PM10 - 0.01
(C&DD Landfill) Bulldozing	2 pieces of equipment, 10 hrs/day and 45 days/yr	17.1 lbs/hr (0.75 lb PM10 per lb PE)	AP-42, Section 11.9-1 (7/98) [bulldozing overburden]	90%	PE - 0.77 PM10 - 0.58
(C&DD Landfill) Storage Pile Loading	7312.8 tons/yr	0.00035 lb/ton (0.75 lb PM10 per lb PE)	AP-42, Section 13.2.4-3 (1/95)	50%	PE - 0.00064 PM10 - 0.0003
(C&DD Landfill) Storage Pile Unloading	7312.8 tons/yr	0.00035 lb/ton (1 lb PM10 per 2.1 lb PE)	AP-42, Section 13.2.4-3 (1/95)	50%	PE - 0.00064 PM10 - 0.0003
(C&DD Landfill) Storage Pile Wind Erosion	0.066 acres and 8760 hrs/yr	7.2 lbs/acre-hr (1 lb PM10 per 2.1 lb PE)	AP-42, Section 11.9-1 (7/98)	50%	PE - 1.04 PM10 - 0.49

- d. Emission Limitation: Visible fugitive PE shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method: If required, compliance with the visible emission limitation for the landfill fugitive dust operations/sources identified 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, 2002, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) 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>
P901 - Municipal solid waste (MSW) and construction and demolition debris (CDD) landfill operations	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

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Crawl

PTI A

Issued: 10/20/2005

Emissions Unit ID: **P901**

None

NEW SOURCE REVIEW FORM B

PTI Number: 03-17000 Facility ID: 0317010039

FACILITY NAME Crawford County Landfill

FACILITY DESCRIPTION Landfill CITY/TWP Bucyrus

SIC CODE 4953 SCC CODE 9-99-999-99 EMISSIONS UNIT ID F001

EMISSIONS UNIT DESCRIPTION Paved and unpaved roadways and parking areas

DATE INSTALLED 1967, modified 1996, modification upon issuance of PTI

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment		8.60		8.60
PM ₁₀	Attainment		2.22		2.22
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

(1) paved roadways: sweeping, watering, speed control and good housekeeping practices; and unpaved roadways: watering and surface improvement; and (2) compliance with the terms and conditions of this permit.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? NO

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ _____

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: _____

