State of Ohio Environmental Protection Agency

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

Street Address:
50 West Town Street, Suite 700
Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329
Mailing Address:
Lazarus Gov. Center
P.O. Box 1049

Application No: 03-17218
Fac ID: 0317010039
DATE: 1/25/2007

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 of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of $70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. 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, OH 43215

Sincerely,

Michael W. Ahern

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

CC: **USEPA** **NWDO**

FINAL PERMIT TO INSTALL 03-17218

Application Number:	03-17218
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):
Modification to PTI 03-17000 to increase the AMDWR from 700 tpd to 1200 tpd.

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

Laura Powell
Acting 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 <u>emission limitations</u>, <u>operational restrictions</u>, <u>and control device operating parameter limitations</u>, 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 (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.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 (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.

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.

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 <u>obtained before</u> 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 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.

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 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 (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

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

Pollutant	Tons Per Year
NMOC	55.0
CH4	15,200
VOC	44.0
PE	67.3
PM10	32.5

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

Emissions Unit ID: F001

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment - (F001) - Roadways and Parking Areas (modification of PTI 03-17070 issued on 02/16/06 to allow for increased daily vehicle traffic fugitive dust)

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05	16.5 tons fugitive particulate emissions (PE) /yr
OAC rule 3745-17-07(B)(1)	See section A.I.2.j.
OAC rule 3745-17-08(B)(1)	See section A.I.2.k.
ORC 3704.03(T)(4)	See section A.I.2.l.
paved roadways and parking areas (see section A.2.a)	
OAC rule 3745-31-05(A)(3)	no visible particulate emissions (PE), except for a period of time not to exceed 1 minute during any 60-minute observation period best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see sections A.I.2.c, and A.I.2.e through A.I.2.i)
unpaved roadways and parking areas (see section A.2.b)	
OAC rule 3745-31-05(A)(3)	no visible PE, except for a period of time not to exceed 3 minutes during any 60-minute observation period best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see sections A.I.2.d through A.I.2.i)

2. Additional Terms and Conditions

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

<u>paved roadways:</u> all paved roadways

<u>paved parking areas:</u> all paved parking areas

2.b The unpaved roadways and parking areas that are covered by this permit and

subject to the above-mentioned requirements are listed below:

<u>unpaved roadways:</u> all unpaved roadways

<u>unpaved parking areas:</u> all unpaved parking areas

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 flushing with water at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other equally-effective 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, at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other equally-effective 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 re-suspension, 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 particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).

2.k The facility is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B)(1).

2.l The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter less than or equal to 10 microns in size (PM10) from this air contaminant source since the calculated annual emission rate for PM10 is less than ten tons per year taking into account the enforceable requirement to apply best available control measures to minimize or eliminate visible emissions of fugitive dust.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

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

paved roadways and parking areas:	minimum inspection frequency:
All	Once per day of operation

unpaved roadways and parking areas:	minimum inspection frequency:
All	Once per 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 shall maintain records of the following information:

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

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

   c. the dates the control measures were implemented; and

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

   The information required in section A.III.3.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 quarterly deviation (excursion) reports that identify the following:

   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.

   The permittee shall submit these reports in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

Emissions Unit ID: F001

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

   a. Emission Limitation:
   16.5 tons/year of fugitive PE

Applicable Compliance Method:
Compliance with fugitive PE and PM_{10} 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, except for a period of time not to exceed 1 minute during any 60-minute observation period for paved roadways and parking areas

Applicable Compliance Method:
Compliance with the visible emission limitation specified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

c. Emission Limitation:
no visible PE, except for a period of time not to exceed 3 minutes during any 60-minute observation period for unpaved roadways and parking areas

Applicable Compliance Method:
Compliance with the visible emission limitation specified 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.

VI. Miscellaneous Requirements

1. The permittee shall not construct, install or modify any emissions unit(s) contained within this PTI (#03-17218) until permit approval has been issued by the Ohio EPA (through the final issuance of PTI #03-18459) allowing for an increase in the authorized maximum daily waste receipt (AMDWR) for the Crawford County Landfill.

Issued: 1/25/2007

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment - (F001) - Roadways and Parking Areas

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Issued: 1/25/2007

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment - (P901) - MSW Landfill - with C&DD (modification of PTI 03-17070 issued on 02/16/06 to increase the daily amount of waste received)

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05	55.0 tons of fugitive non-methane organic compounds (NMOC)/year 15,200 tons of fugitive methane/year 44.0 tons fugitive volatile organic compounds (VOC) / year (80% of NMOC) 50.8 tons fugitive particulate emissions (PE)/year 32.5 tons fugitive particulate matter less than 10 microns (PM10)/year Visible fugitive PE shall not exceed 20% opacity as a 3-minute average. Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (See sections A.II.1 through A.II.4.)
ORC 3704.03(T)(4)	See section A.I.2.l.
40 CFR 60.750 et seq. (NSPS Subpart WWW)	See sections A.I.2.a, A.I.2.b and A.I.2.g, and sections A.III through A.V.
40 CFR 63.1930 et seq. (MACT Subpart AAAA)	none (See section A.I.2.h.)
OAC rule 3745-17-07(B)(1)	none (See section A.I.2.i.)

Emissions Unit ID: P901

OAC rule 3745-17-08(B)	none (See section A.I.2.j.)

2. Additional Terms and Conditions

2.a The permittee (owner or operator), for the MSW landfill having a design capacity greater than 2.5 million cubic meters by volume or 2.5 million megagrams by mass, shall calculate the landfill non-methane organic compounds (NMOC) emission rate annually or may elect to calculate and submit an estimate of the annual NMOC emission rate for the next 5-year period, in lieu of an annual report; and if the estimated NMOC emission rate can be documented to be less than 50 megagrams for each of the next five consecutive years. The estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for the next 5 years. The NMOC emissions for each year shall be calculated using the procedures and appropriate equation contained in this permit [and 40 CFR 60.754(a)]. The landfill NMOC emissions can be calculated in 1, 2 or 3 Tiers as follows:

i. Tier 1: the NMOC emissions are calculated using the appropriate formula and the default values from 40 CFR 60.754(a)(1);

ii. Tier 2: the NMOC emissions are calculated, using the appropriate formula from 40 CFR 60.754(a)(1), using the site specific NMOC concentration (instead of the default value), obtained through the sampling procedures specified in 40 CFR 60.754(a)(3), using either Method 25C or Method 18 of Part 60 appendix A;

iii. Tier 3: the NMOC emissions are calculated, using the appropriate formula from 40 CFR 60.754(a)(1), using the site-specific methane generation rate constant, k, determined as required in 40 CFR 60.754(a)(4), using Method 2E of Part 60 appendix A, and the site-specific NMOC concentration determined from the sampling in Tier 2, 40 CFR 60.754(a)(3).

If the actual waste acceptance rate exceeds the estimated acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the director (the Ohio EPA, 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, or the reporting frequency shall be changed to annual.

The initial 5-year NMOC emissions report shall be submitted to the director by January 31st, following the first year in which the landfill design capacity exceeded 2.5 million cubic meters by volume or 2.5 million megagrams by mass, and shall cover the preceding calendar year and the 5 consecutive years that

follow. The NMOC emissions report shall be submitted by January 31st every 5 years, until a collection and control system is installed in compliance with 60.752(b)(2) and operating in accordance with 40 CFR 60.753 and 60.755. [40 CFR 60.752(b), 60.754(a), & 60.757(b)]

2.b As long as the calculated NMOC emission rate is calculated to be less than 50 megagrams per year the permittee shall:

i. submit the initial 5-year NMOC emission rate report and either annual or 5-year emission reports thereafter; and

ii. recalculate the NMOC emission rate following the fifth year and every 5 years thereafter, using the procedures and calculation specified in 40 CFR 60.754(a) and contained in the testing section of this permit.

If Tier 2 is used to calculate the estimated annual NMOC emissions, the site-specific NMOC concentration shall be re-tested every 5 years, as required in 40 CFR 60.754(a)(3).

If Tier 3 is used to calculate the estimated annual NMOC emissions, the initial/original site-specific methane generation rate constant shall be used in all future annual NMOC emission calculations and reports.

The NMOC emissions report shall be submitted by January 31st every 5 years (unless reverting to annually), until such time a collection and control system is installed in compliance with 60.752(b)(2) and operated in accordance with 40 CFR 60.753 and 60.755, or the landfill is closed.

Unless other arrangements are made with the director, the permittee shall submit a permit to install (PTI) application with the first annual report where the calculated NMOC emissions exceed 50 megagrams per year, in order to permit the facility for the collection and control system(s) required by the Standards of Performance for Municipal Solid Waste Landfills, Subpart WWW. [40 CFR 60.752(b)]

2.c The facility shall not accept for disposal any regulated asbestos containing material (RACM) as defined in the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Asbestos, 40 CFR Part 61, Subpart M, Section 141 and OAC rule 3745-20, or any subsequent revisions to either rule. RACM is defined to include:

i. friable asbestos material;

ii. Category I nonfriable asbestos containing material that has become friable;

iii. Category I nonfriable asbestos containing material that will be or has been subjected to sanding, grinding, cutting, or abrading; or

iv. 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.

In addition, this facility shall not accept any Category II nonfriable asbestos-containing material. For asbestos materials, the permittee shall be limited to accepting Category I nonfriable asbestos containing material that has not or will not be subjected to sanding, grinding, cutting, or abrading. The permittee 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 asbestos NESHAP regulation.
[40 CFR Part 61, Subpart M & OAC chapter 3745-20]

2.d If any asbestos material arrives at the landfill from an unregulated residence and meets the description of RACM as described in section A.I.2 c above, the landfill shall:

i. cause or permit no visible emissions to the outside air from the asbestos-containing waste materials during on-site transportation, transfer, deposition or compacting operations;

ii. assure that deposition and burial operations be conducted in a manner which prevents handling by equipment or persons that causes asbestos-containing waste materials to be broken-up or dispersed before the materials are buried;

iii. cover the asbestos-containing waste material with at least twelve inches of nonasbestos-containing material, as soon as practicable after deposition, but no later than at the end of the operating day; and

iv. assure that during the unloading, deposition, burial and initial compaction of asbestos-containing waste materials, the disposal site is restricted adequately to deter unauthorized entry of the general public and any unauthorized personnel to within one hundred feet of the operations.

[40 CFR Part 61, Subpart M & OAC chapter 3745-20]

2.e There shall be no open burning, in violation of OAC Chapter 3745-19, at this facility.
[OAC chapter 3745-19]

2.f Pursuant to the authority in ORC section 3704.03(L), any representative of the director may, upon presentation of proper identification, enter at any reasonable time upon any portion of the property where this landfill is located, including any improvements thereon, to make inspections; take samples; conduct tests; examine records or reports pertaining to any emissions of air contaminants; and inspect monitoring equipment, emissions control equipment, and/or methods of operation and gas sampling. No operator or agent of this landfill shall act in any manner to refuse, hinder, or thwart this legal right of entry.
[ORC section 3704.03(L)]

2.g The permittee shall submit a permit to install (PTI) modification application and be issued a new PTI, before and where an expansion or an increase in the waste material received increases the NMOC emissions to equal or exceed 50 megagrams/year. If the amended design capacity report is not submitted with the PTI application, the permittee shall submit an amended design capacity report to the director within 90 days of the increase in the maximum design capacity of the landfill.
[40 CFR 60.752(a) & 60.757(a)]

2.h This facility is not subject to 40 CFR Part 63, Subpart AAAA, pursuant to 40 CFR 63.1935.

2.i 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.j The facility is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B)(1).

2.k Hydrogen Sulfide Emissions Contingency Plan

As part of the Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3), Ohio EPA may request the permittee to develop and implement a hydrogen sulfide emissions contingency plan. If requested, the contingency plan shall meet the requirements detailed in rules developed in

response to House Bill (H.B.) 397.

Under H.B. 397 signed by the governor December 22, 2005, Ohio EPA is required to develop rules governing the operation of construction and demolition debris (C&DD) landfills. One part of this bill requires Ohio EPA to require C&DD facilities to develop and implement a contingency plan for the effective action in response to hydrogen sulfide or other gas emissions. However, Ohio EPA believes it may become important for facilities other than C&DD landfills to have in place a contingency plan to deal with potential hazardous emissions. Therefore, as a condition of this permit, if requested, the permittee will be required to develop and implement a hydrogen sulfide / other gas emission contingency plan consistent with the requirements developed in response to H.B. 397.

2.I The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of carbon monoxide (CO) from this air contaminant source since the uncontrolled potential to emit for CO is less than 10 tons per year.

Issued: 1/25/2007

II. Operational Restrictions

1. The permittee shall ensure that solid wastes are deposited, spread, and compacted in such a manner as to minimize or prevent visible emissions of fugitive dust. The permittee shall require all truckloads of solid waste to be unloaded in a manner that will minimize the drop height of the solid wastes. Any dusty materials or wastes likely to become airborne shall be watered as necessary prior to or during dumping operations in order to minimize or eliminate visible emissions of fugitive dust. Watering shall be conducted in such a manner as to avoid the pooling of liquids and runoff. No dusty material shall be dumped during periods of high wind speed, unless the material has been treated to prevent fugitive dust emissions from becoming airborne.

2. 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 permit application, the permittee has committed to watering, at sufficient treatment frequencies to ensure compliance, and also low drop heights and vegetative cover where appropriate. Nothing in this paragraph shall prohibit the permittee from employing other equally-effective control measures to ensure compliance.

3. 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.

4. 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.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall keep for at least 5 years, up-to-date, readily accessible, on-site records of the design capacity report which showed the landfill capacity to equal or exceed 2.5 million megagrams and/or 2.5 million cubic meters, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either hardcopy or electronic formats are acceptable.
   [40 CFR 60.758(a)]

2. The permittee shall maintain records of the total volume of material received each day. These records shall be maintained for a period of not less than three years, and the records shall be available for review by the director or his representative during normal business hours.

3. This solid waste landfill has a design capacity greater than 2.5 million megagrams or 2.5 million cubic meters; therefore, the permittee shall calculate the NMOC emission rate for the landfill using the procedures specified in 40 CFR 60.754(a)(1) and this permit, and shall maintain records of such calculations. Except as provided in 60.757(b)(1)(ii) (where NMOC emissions can be calculated to be less than 50 megagrams in each of the next 5 consecutive years), the NMOC emission rate shall be re-calculated and reported annually.
[40 CFR 60.752(b)(2)]

4. The permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing and/or non-degradable wastes, excluded from collection as provided in 40 CFR 60.759(a)(3)(i), as well as any nonproductive areas excluded from collection as provided in 40 CFR 60.759(a)(3)(ii).
[40 CFR 60.758(d)(2)]

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

landfill fugitive dust operations/sources:	minimum inspection frequency:
All	Once per day of operation

6. 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 event shall be performed as soon as such event(s) has (have) ended, except if the next inspection is within one week.

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

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

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

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

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

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

IV. Reporting Requirements

1. Until a collection and control system is installed, meeting the requirements of 40 CFR 60.753 and 60.755, the permittee shall submit an annual NMOC emission rate report to the director, except for the provisions for the "5-year" estimate below. The director may request such additional information as may be necessary to verify the reported NMOC emission rate.

   a. The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate, calculated using the formula from 40 CFR 60.754(a), also contained in this permit:

      i. The initial NMOC emission rate report may be combined with the initial design capacity report. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for below.

      ii. If the estimated NMOC emission rate as reported in the annual report to the director 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. 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 director. 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 director. 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.

      The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions. The NMOC emissions report is due by January 31 and shall cover the previous calendar year, as well as the following 4-year estimates of NMOC emissions and will be due every 5th year, if the NMOC emission rate estimates do not exceed the reported emission rate for the 5-year reporting period.

   b. The permittee is exempted from the requirements of submitting the annual or 5-year NMOC emission estimate report, following the installation of a collection and control system meeting the requirements of 40 CFR 60.753 and 60.755, or

when the landfill is closed.
[40 CFR 60.757(b)]

2. Unless otherwise approved by the director, the permittee shall submit a PTI application along with the first NMOC emissions report in which the emission rate exceeds 50 megagrams per year; and a collection and control system design plan shall be submitted within 1 year of the first NMOC emissions report in which the emission rate exceeds 50 megagrams per year, except as follows:

   a. If the permittee elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis, as provided in 40 CFR 60.754(a)(3), and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the re-calculated emission rate based on NMOC sampling and analysis, shall be submitted to the director within 180 days of the first calculated emission rate exceeding 50 megagrams per year.

   b. If the permittee elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in 40 CFR 60.754(a)(4), and the resulting NMOC emission rate is less than 50 megagrams per year, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance of 50 megagrams per year. The revised NMOC emission rate report, based on the provisions of 40 CFR 754(a)(4) and the resulting site-specific methane generation rate constant (k), shall be submitted to the director within 1 year of the first calculated emission rate exceeding 50 megagrams per year.

   [40 CFR 60.757(c)]

3. The permittee shall submit a closure report to the Division of Air Pollution Control at the appropriate Ohio EPA office of jurisdiction, within 30 days of waste acceptance cessation. Permanent closure shall be conducted in accordance with the requirements of 40 CFR 258.60; and the Ohio EPA may request additional information, as may be necessary, to verify that all of these conditions are met. If a closure report has been submitted to the Ohio EPA, no additional wastes may be placed into the landfill without filing a notification of modification as described in 40 CFR 60.7(a)(4).
   [40 CFR 60.757(d)]

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

   a. construction date (no later than 30 days after such date);

b. actual start-up date (within 15 days after such date); and

c. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

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

and

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

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

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

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

V. Testing Requirements

1. The permittee shall calculate the NMOC emission rate using either the equation provided in 40 CFR 60.754(a)(1)(i) or the equation provided in 40 CFR 60.754(a)(1)(ii), and specified below. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in 40 CFR 60.754(a)(1)(i), for part of the life of the landfill. The default values to be used in both equations are 0.05 per year for "k", unless a site-specific methane generation rate constant is determined as specified in a Tier 3 determination; 170 cubic meters per megagram for " L0"; and 4,000 ppm by volume as hexane for "CNMOC", unless samples are collected and the actual NMOC concentration is determined, as specified in a Tier 2 determination.

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

      Mnmoc = SUM (i = 1 to n) of 2(k)(Lo)(Mi)(e^(-kti))(Cnmoc)(3.6 x 10^(-9))

      where:

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MNMOC = Total NMOC emission rate from the landfill, megagrams per year;
k = methane generation rate constant, year-1;
Lo = methane generation potential, cubic meters per megagram solid waste;
Mi = mass of solid waste in the ith section, megagrams;
ti = age of the ith section, years;

CNMOC = concentration of NMOC, parts per million by volume as hexane;
3.6 x 10-9 = conversion factor; and
n = number of sections.

The mass of non-degradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill, when calculating the value for Mi, 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:

Mnmoc = 2(Lo)(R)(e^(-kc) - e^(-k) t)(Cnmoc)(3.6 x 10^(-9))

where:

MNMOC = mass emission rate of NMOC, megagrams per year;
Lo = methane generation potential, cubic meters per megagram solid waste;
R = average annual acceptance rate, megagrams per year;
k = methane generation rate constant, year-1;
t = age of landfill, years;
CNMOC = concentration of NMOC, parts per million by volume as hexane;
c = time since closure, years; for active landfill c=0 and e-kc=1; and
3.6 x 10-9 = conversion factor.

The mass of non-degradable 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. [40 CFR 60.754(a)(1)]

2. The permittee shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year. If the calculated NMOC emission rate is calculated to be less than 50 megagrams per year, then the permittee shall submit an emission rate report as required in 40 CFR 60.757(b)(1), and shall recalculate the NMOC mass emission rate annually and submit the report to the director, as required under 40 CFR 60.752(b)(1) and as provided in this permit.

If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the permittee shall submit, within one year, a collection and control system design plan, prepared by a professional engineer, and shall install it in compliance with 40 CFR 60.752(b)(2); or shall determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in a Tier 2

determination, in 40 CFR 60.754(a)(3).
[40 CFR 60.754(a)(2)]

3. For a Tier 2 determination of the NMOC emission rate, the permittee shall determine the NMOC concentration using the following sampling procedure:

   a. 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 non-degradable solid waste.

   b. The permittee 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.

   c. 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. The compositing shall be terminated before the cylinder approaches ambient pressure where measurement accuracy diminishes.

   d. If using Method 18, the permittee must identify all compounds in the sample, and, at 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. At a minimum, the instrument must be calibrated for each of the compounds on the list. The concentration of each Method 18 compound shall be converted to CNMOC as hexane by multiplying it by the ratio of its carbon atoms divided by six.

   e. The permittee shall also divide the NMOC concentration determined from Method 25 or 25C of Appendix A of 40 CR Part 60 by six, to convert from CNMOC as carbon to CNMOC as hexane.

   f. 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 per 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.

g. If more than the required number of samples are taken, all samples must be used in the analysis.

h. The permittee shall recalculate the NMOC mass emission rate using the average NMOC concentration from the collected samples instead of the default value.

i. If the resulting mass emission rate, recalculated using the site-specific NMOC concentration, is equal to or greater than 50 megagrams per year, the permittee shall either:

   i. comply with 40 CFR 60.752(b)(2) and submit, within one year, a collection and control system design plan, and install the system within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, as required by rule, or

   ii. determine the site-specific methane generation rate constant, k, in a Tier 3 determination, and recalculate the NMOC emission rate using the site-specific NMOC concentration from Tier 2 and site-specific methane generation rate constant, k, from Tier 3.

j. If the resulting mass emission rate, recalculated using the site-specific NMOC concentration, is less than 50 megagrams per year, the permittee shall submit annual reports (or 5-year submission per 40 CFR 60.757(b)(1)(ii)) for the estimated NMOC emissions, recalculated each year using the site-specific NMOC concentration and as provided in 40 CFR 60.757(b)(1). The site-specific NMOC concentration shall be retested, as above, every 5 years.

[40 CFR 60.754(a)(3)]

4. For a Tier 3 determination of the NMOC emission rate, the permittee shall determine the site-specific methane generation rate constant, using the procedures provided in Method 2E of Appendix A of 40 CFR, Part 60. The permittee shall estimate the NMOC mass emission rate using the equations from 40 CFR 60.754(a)(1), and included in this permit, using a site-specific methane generation rate constant k and the site-specific NMOC concentration from Tier 2, instead of the default values provided with the calculation in the rule. The permittee shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.

   a. If the resulting NMOC mass emission rate, calculated using the site-specific methane generation rate constant from Tier 3 and the site-specific concentration of NMOC from Tier 2, is equal to or greater than 50 megagrams per year, the permittee shall comply with 40 CFR 60.752(b)(2) and submit, within one year, a

collection and control system design plan, and install the system within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, as required by rule; or

b. If the resulting NMOC mass emission rate, calculated using the site-specific methane generation rate constant from Tier 3 and the site-specific concentration of NMOC from Tier 2, is less than 50 megagrams per year, the permittee shall submit annual reports (or 5-year submission per 40 CFR 60.757(b)(1)(ii)) for the estimated NMOC emissions, recalculated each year using the site-specific methane generation rate constant k and the site-specific NMOC concentration from Tier 2, and submitted as provided in 40 CFR 60.757(b)(1).

c. The site-specific NMOC concentration shall be retested, as above, every 5 years, to be used in the NMOC emission estimate calculations. However, the calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.

[40 CFR 60.754(a)(4)]

5. The permittee may use other methods to determine the NMOC concentration or site-specific methane generation rate constant k, as an alternative to the methods required in 40 CFR 754(a)(3) or (4), only if the method has been approved by the Administrator of the U.S. Environmental Protection Agency.
[40 CFR 60.754(a)(5)]

6. When calculating emissions for PSD purposes, the permittee shall estimate the NMOC emission rate, for comparison to the PSD major source and significance levels in 40 CFR 51.166 or 40 CFR 52.21 using AP-42 or other approved measurement procedures.
[40 CFR 60.754(c)]

7. 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. <u>Emission Limitations</u>:
55.0 tons of fugitive NMOC /year
15,200 tons of fugitive methane /year.
44.0 tons of fugitive VOC / year (80% of NMOC)

<u>Applicable Compliance Method</u>:
Emissions shall not exceed these values based on the calculations referenced

below. These calculations represent the highest emission rates which could occur based on US EPA's Landfill Gas Emission Model (LandGEM).

The maximum gas generation/emissions were calculated or predicted using LandGEM, based on the proposed landfill capacity of (4,679,000 megagrams) divided equally over each of two periods of proposed operation approximately, of 38 and 9 years respectively, at the maximum receiving rates of 69,600 and 259,000 megagrams of waste material per year, respectively. Predictions are for year 2013.

i. NMOC concentrations and emissions were determined according to 40 CFR 60, Appendix A, Method 25C and LandGEM (Tier 2 value of 138).
ii. CH4 emissions were estimated according to US EPA's AP-42, Compilation of Air Pollution Emission Factors, Chapter 2.4, for municipal solid waste landfills, (11/98) and LandGEM.
iii. VOC emissions were estimated as 80 percent of NMOC according to 61 FR 9912.

[OAC 3745-31-05(A)(3) & 40 CFR 60, Subpart WWW]

b. Emission Limitations:
50.8 tons of fugitive PE /year
32.5 tons of fugitive PM10 /year

Applicable Compliance Method:
The emission limitations were established by combining the uncontrolled emissions associated with the landfill fugitive dust operations /sources of: (1) daily cover, material handling and placement; (2) waste handling /dumping; (3) spreading, grading, and compaction; (4) construction support / landfill development; and (5) storage piles / wind erosion; and applying the following control efficiencies for use of the following best available control measures: (2) 50%, for low drop heights; (4) 90%, for watering roads, clay lifts, etc.; and (5) 50%, for low drop heights, watering, vegetative cover. The combined uncontrolled emissions were calculated using appropriate AP-42 emission factors [Section 11.9 (07/98) and 13.2.4 (01/95)] and associated maximum material throughout, surface areas, etc.

Therefore, provided compliance is shown with the requirements of this permit to apply best available control measures, compliance with the annual PE and PM10 limitations will be assumed.

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

Applicable Compliance Method:
If required, compliance shall be determined by visible emission evaluations performed in accordance with USEPA Reference Method 9 as set forth in

"Appendix A on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraph (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03(B)(3).
[OAC rule 3745-31-05(A)(3)]

VI. Miscellaneous Requirements

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

2. The permittee shall not construct, install or modify any emissions unit(s) contained within this PTI (#03-17218) until permit approval has been issued by the Ohio EPA (through the final issuance of PTI #03-18459) allowing for an increase in the authorized maximum daily waste receipt (AMDWR) for the Crawford County Landfill.

Issued: 1/25/2007

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment - (P901) - MSW Landfill - with C-and-DD

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None