Ohio Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

12/8/2015

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Will Martin
Crawford County Landfill
650 25th Street NW Suite 100
Cleveland, TN 37311

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0317010039
Permit Number: P0119819
Permit Type: OAC Chapter 3745-31 Modification
County: Crawford

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA)Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

The issuance of this PTI is a final action of the Director 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, made payable to "Ohio Treasurer Josh Mandel," 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
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging 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 Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Northwest District Office at (419)352-8461 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA
Ohio EPA-NWDO; Canada

FINAL

Division of Air Pollution Control
Permit-to-Install
for
Crawford County Landfill

Facility ID:	0317010039
Permit Number:	P0119819
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	12/8/2015
Effective:	12/8/2015

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install
for
Crawford County Landfill

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Authorization

Facility ID:	0317010039
Facility Description:	MSW Landfill
Application Number(s):	A0054499
Permit Number:	P0119819
Permit Description:	Chapter 31 Modification for a solid waste landfill vertical and lateral expansion and associated modification to the facility roadways and parking areas
Permit Type:	OAC Chapter 3745-31 Modification
Permit Fee:	$400.00
Issue Date:	12/8/2015
Effective Date:	12/8/2015

This document constitutes issuance to:

Crawford County Landfill
5128 Lincoln Highway East
Bucyrus, OH 44820-9655

of a Permit-to-Install for the emissions unit(s) identified on the following page.

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
(419)352-8461

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section 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 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

Craig W. Butler
Director

Authorization (continued)

Permit Number: P0119819
Permit Description: Chapter 31 Modification for a solid waste landfill vertical and lateral expansion and associated modification to the facility roadways and parking areas

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	**F001**
Company Equipment ID:	Roadways and Parking Areas
Superseded Permit Number:	P0109686
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P901**
Company Equipment ID:	Landfill Activities
Superseded Permit Number:	P0105294
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A.2.a), Severability Clause

(2) Standard Term and Condition A.3.c) through A. 3.e)General Requirements

(3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements

(4) Standard Term and Condition A.9., Reporting Requirements

(5) Standard Term and Condition A.10., Applicability

(6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install

(7) Standard Term and Condition A.14., Public Disclosure

(8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(9) Standard Term and Condition A.16., Fees

(10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

a) 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.

b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

a) 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.

4. 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:

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

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) 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:

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.

(2) Quarterly written reports of (i) any deviations from federally enforceable emissionlimitations, operationalrestrictions, andcontroldeviceoperatingparameterlimitations, 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 Ohio EPA DAPC, Northwest District Office. 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 A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, andreportingrequirements contained in this permit shall be submitted to the Ohio EPA DAPC, Northwest District Office 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.

(4) This permit is for an emissions unit located at a Title V facility. 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.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to theOhio EPA DAPC, Northwest District Officein 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).

6. Compliance Requirements

a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

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:

(1) 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.

(2) 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.

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

(4) 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 Ohio EPA DAPC, Northwest District Office 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:

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

(2) 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.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. 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.

9. 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 Ohio EPA DAPC, Northwest District Office.

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 Ohio EPA DAPC, Northwest District Office. 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, 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.)

10. 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)not exempt from the requirement to obtain a Permit-to-Install.

11. Construction of New Sources(s) and Authorization to Install

a) 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.

b) If applicable, authorization to install any new 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 has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. 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 permittee shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).

d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted,no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

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 operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d)must be <u>obtained before</u>operating the source in a manner that would violate the existing Title V permit requirements.

13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services"facility profile for each new emissions unit identified in this permit.

a) Completion of initial installation date shall be enteredupon completion of construction and prior to start-up.

b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. 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.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

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 by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. 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.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed.The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. 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.

19. 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.

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) None.

C. Emissions Unit Terms and Conditions

1. F001, Roadways and Parking Areas

Operations, Property and/or Equipment Description:

Roadways and Parking Areas

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	Develop and implement a site-specific work practice plan designed as described in paragraph d)(1) below to minimize or eliminate fugitive dust emissions. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate matter 10 microns or less (PM_{10}) emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b.
c.	OAC rule 3745-17-07(B)	See b)(2)c.
d.	OAC rule 3745-17-08(B)	See b)(2)d.

(2) Additional Terms and Conditions

a. This BAT emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

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

d. This facility is not located within an "Appendix A" area 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).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Work Practice Plan

The permittee shall develop and implement a site-specific work practice plan designed to minimize or eliminate fugitive dust from the permittee's paved and unpaved roadways and parking areas. This work practice plan shall include, at a minimum, the following elements:

a. An identification of each roadway or parking area, or segment of roadway or parking area, for which the plan applies. The permittee can select whether to develop a plan based on segments or entire roads.

b. A determination of the frequency that each roadway, parking area or segment will be inspected to determine if additional control measures are needed. The frequency of inspection can either be common for all segments of the roadway or parking areas or may be identified separately for various segments of the roadway or parking areas.

c. The identification of the record keeping form/record that will be used to track the inspection and treatment of the roadways. This form/record should include, at a minimum, the following elements:

i. Roadway, parking area, or segment inspected;

ii. Date inspected;

iii. Name of employee responsible for inspection;

iv. Result of the inspection (needs treated or does not need treated);

v. A description of why no treatment was needed;

vi. Date treated;

vii. Name of employee responsible for roadway, parking area, or segment treatment; and

viii. Method used to treat the roadway, parking area, or segment.

d. A description of how and where the records shall be maintained.

The permittee shall begin using the Work Practice Plan within 30 days from the date Ohio EPA approved the initial plan. As needs warrant, the permittee can modify the Work Practice Plan. The permittee shall submit a copy of proposed revisions to the Work Practice Plan to the appropriate District Office or Local Air Agency (DO/LAA) for review and approval. The permittee can begin using the revised Work Practice Plan once the appropriate DO/LAA has approved its use.

(2) Work Practice Plan Inspections

Except as otherwise provided in this section, the permittee shall perform inspections of each of the roadway segments and parking areas at frequencies described in the Work Practice Plan. The purpose of the inspections is to determine the need for implementing 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) Work Practice Plan Record Keeping

The permittee shall maintain records of the following information:

a. The records required to be collected under the Work Practice Plan, and

b. The date and reason any element of the Work Practice Plan was not implemented.

The permittee shall maintain these records in accordance to the Standard Terms and Conditions of Part A of this permit.

e) Reporting Requirements

(1) Within 30 days from the final issuance of this permit, the permittee shall submit their proposed Work Practice Plan to the appropriate DO/LAA.

(2) The permittee shall submit quarterly 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.

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

(3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. None.

g) Miscellaneous Requirements

(1) None.

2. P901, Landfill Activities

Operations, Property and/or Equipment Description:

MSW Landfill - with C-and-DD

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(T)	1.26 tons carbon monoxide (CO) per month averaged over a twelve-month rolling period [See b)(2)l.] Develop and implement a site-specific work practice plan designed as described in paragraph d)(4) below to minimize or eliminate fugitive dust emissions.
b.	OAC rule 3745-31-05(A)(3)	44.0 tons fugitive volatile organic compounds (VOC) /year See b)(2)k and b)(2)l.
c.	40 CFR 60.750 et seq. (NSPS Subpart WWW)	See b)(2)a, b)(2)b and b)(2)g, and sections d), e), and f).
d.	40 CFR 63.1930 et seq. (MACT Subpart AAAA)	none [See b)(2)h.]
e.	OAC rule 3745-17-07(B)(1)	none [See b)(2)i.]
f.	OAC rule 3745-17-08(B)	none [See b)(2)j.]

(2) Additional Terms and Conditions

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 31, 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 31 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) and 60.757(b)]

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)]

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 chapter 3745-20, or any subsequent revision 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 and OAC chapter 3745-20]

d. If any asbestos material arrives at the landfill from an unregulated residence and meets the description of RACM as described in section b)(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 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 and OAC chapter 3745-20]

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

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)]

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/yr. 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) and 60.757(a)]

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

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

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

k. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) are not applicable to the following pollutants emitted from this emissions unit:

i. Emissions of particulate matter that are greater than 10 microns in size;

ii. Emissions of methane;

iii. Emissions of non-methane organic compounds (NMOC) that are not volatile organic compounds

BAT is only applicable to emissions of an air contaminant or precursor of an air contaminant for which a national ambient air quality standard (NAAQS) has been adopted under the Clean Air Act. Emissions of particulate matter greater than 10 microns in size, methane and NMOC emissions which are not VOC are air contaminants that do not involve an established NAAQS.

l. This permit action involves a "Chapter 31 modification" of this emissions unit based on a lateral /vertical expansion of the landfill. The modification impacts only allowable CO and PM_{10} emissions; therefore, the other limitations and requirements for VOC previously established in PTI P0105294, issued December 13, 2010, are not subject to new BAT requirements under ORC 3704.03(T).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) 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.

(2) 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.

(3) 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).

(4) Work Practice Plan

The permittee shall develop and implement a site-specific work practice plan designed to minimize or eliminate fugitive dust from any fugitive dust sources included under the permittee's landfill operations. This work practice plan shall include, at a minimum, the following elements:

a. An identification of each landfill operation fugitive dust source for which the plan applies.

b. A determination of the frequency that each landfill operation fugitive dust source will be inspected to determine if additional control measures are needed. The frequency of inspection can either be common for all sources or may be identified separately for various sources.

c. The identification of the record keeping form/record that will be used to track the inspection and treatment of the landfill operation fugitive dust sources. This form/record should include, at a minimum, the following elements:

i. Fugitive dust source inspected;

ii. Date inspected;

iii. Name of employee responsible for inspection;

iv. Result of the inspection (needs treated or does not need treated);

v. A description of why no fugitive dust source treatment was needed;

vi. Date treated;

vii. Name of employee responsible for fugitive dust source treatment; and

viii. Method used to treat the fugitive dust source.

d. A description of how and where the records shall be maintained.

The permittee shall begin using the Work Practice Plan within 30 days from the date Ohio EPA approved the initial plan. As needs warrant, the permittee can modify the Work Practice Plan. The permittee shall submit a copy of proposed revisions to the Work Practice Plan to the appropriate District Office or Local Air Agency (DO/LAA) for review and approval. The permittee can begin using the revised Work Practice Plan once the appropriate DO/LAA has approved its use.

(5) Work Practice Plan Inspections

Except as otherwise provided in this section, the permittee shall perform inspections of each of the landfill operations fugitive dust sources at frequencies described in the Work Practice Plan. The purpose of the inspections is to determine the need for implementing control measures. The inspections shall be performed during representative, normal landfill operations. No inspection shall be necessary for a fugitive dust 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 required inspection is within one week.

(6) Work Practice Plan Record Keeping

The permittee shall maintain records of the following information:

a. The records required to be collected under the Work Practice Plan, and

b. The date and reason any element of the Work Practice Plan was not implemented.

The permittee shall maintain these records in accordance to the Standard Terms and Conditions of Part A of this permit.

e) 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.

(2) Unless otherwise approved by the director, the permittee shall submit a PTI application along with the first NMOC emissions reports 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 recalculated 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.

(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).

(4) Within 30 days from the final issuance of this permit, the permittee shall submit their proposed Work Practice Plan to the appropriate DO/LAA.

(5) The permittee shall submit quarterly deviation reports that identify any of the following occurrences:

a. each day during which a fugitive dust source 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 deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(6) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) 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 " L_0"; and 4000 ppm by volume as hexane for "C_{NMOC}", 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:

$$M_{NMOC} = \sum_{(i = 1 \text{ to } n)} 2\, k\, L_O M_i\, e^{-kti}\, C_{NMOC}\, (3.6 \times 10^{-9})$$

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 ith section, megagrams;
t_i = age of the ith section, years;
C_{NMOC} = concentration of NMOC, parts per million by volume as hexane;
3.6×10^{-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 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:

$$M_{NMOC} = 2\ L_0\ R\ (e^{-kc} - e^{-k}\ t)\ C_{NMOC}\ (3.6 \times 10^{-9})$$

where:
M_{NMOC} = mass emission rate of NMOC, megagrams per year;
L_0 = 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; and
3.6×10^{-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.

(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).

(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 compound 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 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.

(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.

(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.

(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.

(7) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:
44.0 tons fugitive VOC/yr

Applicable Compliance Method:
This VOC limit was established to correspond to the Subpart WWW 'action level' of 50 megagrams (55.0 tons) of NMOC emissions.

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 (6,322,000 megagrams) divided over approximately 48 years of proposed operation, at an average maximum receiving rate of 132,000 megagrams of waste material per year. Predictions are for year 2019.

NMOC concentrations and emissions were determined according to 40 CFR 60, Appendix A, Method 25C and LandGEM (Tier 2 value of 59). VOC emissions were estimated as 80 percent of NMOC according to 61 FR 9912.

b. Emission Limitations:
1.26 tons CO per month averaged over a twelve-month rolling period

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) and the Landfill Gas Emissions Model (LandGEM) with a total landfill capacity of 6,322,000 megagrams of compacted waste.

g) 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 of 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 P0119819 until permit approval has been issued by the Ohio EPA (through the final issuance of PTI 971858) allowing for a vertical expansion of the Crawford County Landfill.