Ohio Environmental Protection Agency
John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

8/22/2011

Certified Mail

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

John Butler
Rumpke Sanitary Landfill, Inc.
10795 Hughes Road
Cincinnati, OH 45251-4598

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 1431092049
Permit Number: P0107919
Permit Type: Administrative Modification
County: Hamilton

Dear Permit Holder:

Enclosed please find a final 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.Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

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
309 South Fourth Street, Room 222
Columbus, OH 43215

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. If you have any questions regarding this permit, please contact the Hamilton County Dept. of Environmental Services. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page,www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA
HCDOES; Indiana; Kentucky

50 West Town Street, Suite 700
P.O. Box 1049
Columbus, OH 43216-1049

614 | 644 3020
614 | 644 3184 (fax)
www.epa.ohio.gov

Permit Strategy Write-Up

1. Check all that apply:

   Synthetic Minor Determination

   Netting Determination

2. Source Description:

   Rumpke Sanitary Landfill is requesting an Administrative Modification to PTI #P0105702, emissions unit P902, to the revise waste received limit, from 10,000 tons/day to 3,650,000 tons per year.

   However, based upon review of this request, we have determined to only allow an exceedance of this daily tonnage limitation based upon approval from another division of Ohio EPA thru the director. See term c)(19)in the operational section of permit. Apparently the other Ohio EPA division allows exceedance of this daily 10,000 limitation on a short term basis as long as the company secures approval from the director of Ohio EPA.

   The company has submitted revised air dispersion modeling information based upon the use of a more recent air dispersion modeling program that generates a more refined output than the one used in the original permitting action to DAPC based upon the input of 20,000 tons per day of waste. We already had daily waste received recordkeeping requirements in the original permit in order to validate how much the company is accepting of waste per day. So this recordkeeping requirement will allow us to validate that the company will not exceed 20,000 tons per day of waste. The requested revision would not result in an increase in allowable emissions for any pollutant.

3. Facility Emissions and Attainment Status:

   Rumpke Sanitary Landfill is a Title V facility located in Hamilton County. Hamilton County is in attainment for all criteria pollutants except PM2.5. Emissions unit P902 is subject to NSPS, MACT, NESHAP and PSD requirements.

4. Source Emissions:

   The Administrative Modification in this permitting action would not affect the allowable emission limits contained in PTI #P0105702. Since there are no increases in PM10 emissions, the PSD modeling analysis would not be affected.

5. Conclusion:

   Since this proposed Administrative Modification does not constitute a Chapter 31 modification, direct draft issuance is recommended.

6. Please provide additional notes or comments as necessary:

   None

7. Total Permit Allowable Emissions Summary (for informational purposes only):

Pollutant	Tons Per Year
NA	NA

Ohio | Environmental Protection Agency

FINAL

Division of Air Pollution Control
Permit-to-Install
for
Rumpke Sanitary Landfill, Inc.

Facility ID:	1431092049
Permit Number:	P0107919
Permit Type:	Administrative Modification
Issued:	8/22/2011
Effective:	8/22/2011

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install
for
Rumpke Sanitary Landfill, Inc.

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Authorization

Facility ID: 1431092049
Facility Description: municipal solid waste landfill
Application Number(s): M0001212
Permit Number: P0107919
Permit Description: Administrative Modification to PTI #P0105702 to revise the permit language on the waste received limitation
Permit Type: Administrative Modification
Permit Fee: $625.00
Issue Date: 8/22/2011
Effective Date: 8/22/2011

This document constitutes issuance to:

Rumpke Sanitary Landfill, Inc.
10795 Hughes Road
Cincinnati, OH 45251-4598

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

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Hamilton County Dept. of Environmental Services
250 William Howard Taft Pkwy.
Cincinnati, OH 45219-2660
(513)946-7777

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

Scott J. Nally
Director

Authorization (continued)

Permit Number: P0107919
Permit Description: Administrative Modification to PTI #P0105702 to revise the permit language on the waste received limitation

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

Emissions Unit ID:	**P902**
Company Equipment ID:	Solid Waste Landfilling and LFG Generation and Control
Superseded Permit Number:	P0105702
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) 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.

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 Hamilton County Dept. of Environmental Services.

(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 Hamilton County Dept. of Environmental Services. 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 (i.e., postmarked) to the Hamilton County Dept. of Environmental Services 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 the Hamilton County Dept. of Environmental Services 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).

6. Compliance Requirements

a) 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.

b) 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.

c) 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.

d) The permittee shall submit progress reports to the Hamilton County Dept. of Environmental Services 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 Hamilton County Dept. of Environmental Services.

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 Hamilton County Dept. of Environmental Services. 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.)

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).

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 party 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 Ohio EPA’s “Air Services” along with the date the emissions unit(s) was permanently

removed and/or disabled. Submitting the facility profile update will constitute notifying 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.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

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 the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online 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 (i.e., postmarked), 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. P902, Solid Waste Landfilling and LFG Generation and Control

Operations, Property and/or Equipment Description:

solid waste disposal, landfill gas generation and control

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)	Emissions under the New Gas Recovery Plants (Plants 3 and 4) Option (stack emissions) shall not exceed the following: Carbon monoxide (CO) emissions shall not exceed 48.18 lbs/hr and 211.03 tons/yr.* Particulate emissions (PE) shall not exceed 2.75 lbs/hr and 12.04 tons/yr. Emissions of particulate matter less than 10 microns in diameter (PM10) shall not exceed 2.75 lbs/hr and 12.04 tons/yr.* Emissions under the New Enclosed Combustors Option (stack emissions) shall not exceed the following: CO emissions shall not exceed 95.4 lbs/hr. PE shall not exceed 7.3 lbs/hr. PM10 emissions shall not exceed 7.3 lbs/hr. Emissions under the New Utility Flares Option (stack emissions) shall not exceed the following:

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		CO emissions shall not exceed 123.44 lbs/hr. PE shall not exceed 7.3 lbs/hr. PM10 shall not exceed 7.3 lbs/hr. Annual emissions under the New Combined Control Devices Option (stack emissions) shall not exceed the following: Non-methane organic compound (NMOC) emissions shall not exceed 16.79 TPY. CO emissions shall not exceed 417.91 TPY.* PE emissions shall not exceed 31.87 TPY. PM10 emissions shall not exceed 31.87 TPY.* Nitrogen oxides (NOx) emissions shall not exceed 113.83 tons/yr.* Sulfur dioxide (SO2) emissions shall not exceed 29.3 tons/yr. Hydrogen chloride (HCl) emissions shall not exceed 45.18 tons/yr. Hydrogen fluoride (HF) emissions shall not exceed 7.28 tons/yr. Fluorotrichloromethane (CFC-11) emissions shall not exceed 0.02 tons/yr.* Dichlorodifluoromethane (CFC-12) emissions shall not exceed 0.37 tons/yr.* Methane emissions shall not exceed 1563 tons/yr. If the New Gas Recovery Plants (Plants 3 and 4) Option is used by itself or in conjunction with any other option then the emissions from the New Gas Recovery Plants (Plants 3 and 4 stack emissions) shall not exceed the following:

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		CO emissions shall not exceed 211.03 TPY.* PE emissions shall not exceed 12.04 tons/yr. PM10 emissions shall not exceed 12.04 tons/yr.* Emissions from the existing gas recovery plants (Plants 1 and 2 stack emissions) shall not exceed the following: NMOC emissions shall not exceed 7.91 lbs/hr and 34.65 tons/yr. CO emissions shall not exceed 15.92lbs/hour and 69.77 tons/yr. PE emissions shall not exceed 0.2 lb/hr and 0.86 ton/yr. PM10 emissions shall not exceed 0.2 lb/hr and 0.86 ton/yr. NOx emissions shall not exceed 3.75lbs/hr and 16.52 tons/yr. SO2 emissions shall not exceed 1.62 lbs/hr and 7.11 tons/yr. Methane emissions shall not exceed 599 tons/yr. HCl emissions shall not exceed 25.62 tons/yr. HF emissions shall not exceed 3.28 tons/yr. Fugitive (non stack) emissions from the existing emissions unit before the vertical and southern expansion shall not exceed the following: Methane emissions shall not exceed 28,588 tons/yr. Emissions under the NSPS Enclosed Combustors Option, New Gas Recovery Plants (Plants 3 and 4) Option, or the

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		New Utility Flares Option (stack emissions) shall not exceed the following: NMOC emissions shall not exceed 3.83 lbs/hr. NOx emissions shall not exceed 26.0 lbs/hr. SO2 emissions shall not exceed 6.7 lbs/hr. HCl emissions shall not exceed 10.3 lbs/hr. HF emissions shall not exceed 1.7 lbs/hr. Fugitive (non-stack) emissions from this emissions unit shall not exceed the following: NMOC emissions shall not exceed 745.70 tons/yr. CO emissions shall not exceed 34.18 tons/yr. PE emissions shall not exceed 0.56 ton/yr. PM10 emissions shall not exceed 0.27 ton/yr. Methane emissions from both the vertical and southern expansion shall not exceed 45,029 tons/yr. Fugitive Hydrogen sulfide (H2S) emissions shall not exceed 10.47 tons/yr. CFC-11 emissions shall not exceed 0.90 ton/yr. CFC-12 emissions shall not exceed 16.43 tons/yr. See b)(2)e., b)(2)f., b)(2)g., b)(2)h., c)(9) and c)(19). The requirements of this rule also include compliance with the requirements of OAC Chapter 3745-20, OAC rules 3745-31-11

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		through 3745-31-20, and 40 CFR Part 60, Subpart WWW, 40 CFR Part 61, Subpart M, and 40 CFR Part 63, Subpart AAAA.
b.	OAC rules 3745-31-11 through 3745-31-20	The pollutant emission limitations asterisked above are subject to the requirements of these rules.
c.	40 CFR Part 60, Subpart WWW	See b)(2)a. through b)(2)d., b)(2)j., b)(2)l., c)(1) through c)(6), c)(10) through c)(15), c)(20), and c)(21).
d.	40 CFR Part 61, Subparts A and M and OAC Chapter 3745-20	See b)(2)k., c)(7) and c)(8).
e.	40 CFR Part 63, Subpart AAAA	See c)(17) and c)(18).

(2) Additional Terms and Conditions

a. The active collection system shall satisfy the following requirements, as specified in 40 CFR Part 60.752(b)(2)(ii)(A):

i. The system shall be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment.

ii. The system shall collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active, or 2 years or more if closed or at final grade.

iii. The system shall collect gas at a sufficient extraction rate.

iv. The system shall be designed to minimize off-site migration of subsurface gas.

b. The permittee shall comply with either of the following:

i. All landfill gas collected shall be routed to a control system designed and operated within the parameters demonstrated during the performance test to reduce non-methane organic compound (NMOC) emissions by 98%, by weight, or when an enclosed combustion device is used for control, to either reduce NMOC emissions by 98%, by weight, or reduce the outlet NMOC emission concentration to less than 20 parts per million (ppm), by volume, dry basis as hexane at 3% oxygen. The reduction efficiency or ppm, by volume, shall be established by an initial performance test to be completed no later than 180 days after initial startup of the approved new control system (control system for the southern expansion) using the test methods specified in 40 CFR Part 60.754(d).

ii. Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any

atmospheric vent from the gas treatment system shall be subject to the requirements of 40 CFR Part 60.752(b)(2)(iii)(A) or (B).

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

i. The landfill shall be a closed landfill as defined in 40 CFR Part 60.751. A closure report shall be submitted to the Department of Environmental Services as provided in 40 CFR Part 60.757(d).

ii. The collection and control system shall have been in operation a minimum of 15 years.

iii. Following the procedures specified in 40 CFR Part 60.754(b), the calculated NMOC gas produced by the landfill shall be less than 55 tons per year on 3 successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

d. The equipment that constitutes the gas collection and control system shall be properly maintained and kept in good operating condition at all times.

e. For all waste handling materials, except asbestos-containing materials:

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

ii. Use of reasonably available control measures, to minimize or eliminate the emissions of fugitive dust.

f. For Asbestos-Containing Material (ACM):

i. There shall be no visible emissions.

ii. Use of handling procedures and control measures, to prevent the emissions of fugitive dust.

g. Visible particulate emissions from the stack serving the existing gas recovery plants (Plants 1 and 2) shall not exceed 10% opacity, as a 6-minute average.

Visible particulate emissions from the stack serving the new gas recovery plants (Plants 3 and 4) shall not exceed 20% opacity, as a 6-minute average.

h. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the visible particulate emission limitations, a well designed and well operated landfill gas collection system and a control system capable of reducing NMOC in the collected gas by 98% or an outlet concentration of 20 ppmv hexane at 3% oxygen, reasonable available control measures to minimize or eliminate emissions of fugitive dust from solid waste disposal operations, compliance with 40 CFR Part 60, Subpart WWW, 40 CFR Part 61, Subpart M and 40 CFR Part 63, Subpart AAAA.

i. The hourly emission limitations are based upon the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping or reporting requirements are required to demonstrate compliance with these emission limitations.

j. 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.

k. The application and enforcement of the provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 61, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 61 are also federally enforceable.

l. There shall be no visible emissions from an open flare, except for periods not to exceed 5 minutes during any 2 consecutive hours as outlined in 40 CFR 60.18.

c) Operational Restrictions

(1) Whenever any enclosed combustor(s) are in operation, the average combustion temperature for any 3-hour block of time shall be no more than 82.4 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)(b).

(2) The permittee shall operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for 5 years or more if active, or for 2 years or more if closed or at final grade.

(3) The permittee shall operate the collection system with negative pressure at each wellhead except under the following conditions:

a. A fire or increased well temperature (the permittee shall record all instances when positive pressure occurs in efforts to avoid a fire).

b. Use of a geomembrane or synthetic cover (the permittee shall develop acceptable pressure limits in the design plan).

c. A decommissioned well (a well may experience a static positive pressure after shutdown to accommodate for declining flows). All design changes shall be approved by the Director of Ohio EPA.

(4) The permittee shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius and with either a nitrogen level less than 20% or an oxygen level less than 5%. The permittee may establish a higher operating temperature, nitrogen level, or oxygen level at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

(5) The permittee shall operate the collection system so that the methane concentration is less than 500 ppm above background at the surface of the landfill.

(6) The permittee shall operate the collection system such that all collected gases are vented to a control system designed and operated in compliance with b)(2)b. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour.

(7) Disposal Requirements for ACM:

a. There shall be no visible emissions from ACM during on-site transportation, transfer, unloading, deposition or compacting operations.

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

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

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

d. Deposition and burial operations shall be conducted in a careful manner that prevents asbestos-containing waste materials from being broken up or dispersed before the materials are buried.

e. The permittee shall establish restricted access, adequate to deter the unauthorized entry of the general public and any unauthorized personnel, within 100 feet of the unloading, deposition, and burial areas for the asbestos-containing waste materials. A hazard warning shall be displayed on signs not less than 20 x 14 inches in size, posted so they are visible before entering an area with asbestos waste disposal operations in progress; or, alternatively, mark vehicles used to transport asbestos-containing waste materials with 20 x 14 inch signs so that the signs are displayed in such a manner and location that a person can easily read the legend. Display the following legend in the lower panel with

letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend:

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

Notation

2.5 cm (1 inch) Sans Serif, Gothic or Block
2.5 cm (1 inch) Sans Serif, Gothic or Block
1.9 cm (3/4 inch) Sans Serif, Gothic or Block
14 Point Gothic

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

(8) The permittee shall cover and compact asbestos wastes in accordance with the following:

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

b. Care shall be taken to ensure that disposed asbestos shall not be re-excavated in subsequent operations. Any accidentally exposed material shall be immediately recovered in accordance with the provisions of condition (8)a. above.

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

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

(9) The permittee shall ensure that solid wastes are deposited, spread and compacted in such a manner as to minimize or prevent visible emissions of dust. All truckloads of solid waste shall be unloaded in a manner which 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.

(10) The permittee shall operate the recovery and treatment system at all times when the collected gas is routed to the system.

(11) The utility flare shall be equipped with a heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of flame when the flare is in operation.

(12) The permittee shall either burn the gas in an enclosed combustor, open flare and/or an energy recovery piece of equipment, as required above, or collect and sell the gas as fuel.

(13) The collection system shall be designed to meet the requirements of 40 CFR Part 60.759.

(14) The permittee shall place each well or design component as specified in the approved design plan as provided in 40 CFR Part 60.752(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

a. 5 years or more if active; or
b. 2 years or more if closed or at final grade.

(15) The permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

(16) There shall be no open burning in violation of OAC Chapter 3745-19.

(17) The permittee shall develop a written startup, shutdown and malfunction plan and follow the requirements as outlined in 40 CFR Part 63.6(e). This plan shall be developed by January 16, 2004 or upon reconstruction, whichever comes first and be maintained on site.

(18) The permittee shall comply with the general provisions outlined in Table 1 of 40 CFR Part 63, Subpart AAAA.

(19) The maximum amount of solidwaste as defined in OAC rule 3745-27-01(S)(23) (excluding composting raw material and unprocessed and/or shredded tires) received daily shall not exceed 10,000 tons. This daily limit may be exceeded if approved in writing by the Director of Ohio EPA.

(20) If monitoring demonstrates that the operational requirements in c)(3) through c)(5) are not met, the corrective actions shall be taken as specified in c)(15), d)(2) and/or d)(6). If corrective actions are taken as specified, the monitored exceedance is not a violation of the operational requirements.

(21) The NSPS 40 CFR 60 Subpart WWW requirements apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of the start-up,

shutdown, or malfunction does not exceed 5 days for collection systems and does not exceed 1 hour for treatment or control devices.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the enclosed combustor when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

a. All 3-hour blocks of time during which the average combustion temperature within any enclosed combustor, when the emissions unit was in operation, was more than 82.4 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)(b).

b. A log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

(2) For the active gas collection system, the permittee shall install a sampling port and a thermometer, or other temperature measuring device, or an access port for temperature measurements at each wellhead and record the following information on a monthly basis:

a. The gauge pressure in the gas collection header at each individual well, in psi.

b. The nitrogen or oxygen concentration in the landfill gas, in percent.

c. The temperature of the landfill gas, in degrees Fahrenheit.

If a well exceeds one of the operating parameters specified in c)(3) and c)(4), except as provided under 40 CFR Parts 60.753(b) and (c), action shall be initiated to correct the exceedances within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative time line for correcting the exceedance may be submitted to the Hamilton County Department of Environmental Services for approval.

(3) The permittee shall either install, calibrate, maintain, and operate, according to the manufacturer's specifications, a device that records the flow to the enclosed combustor and/or flare, treatment system, and bypass stack, and collect and record the flow at least every 15 minutes; or

Secure the bypass line valve in the closed position with a car-seal or lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed

at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(4) The permittee shall maintain, for the life of the collection system, an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

(5) The permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity of the landfill, the current amount of solid waste in-place, and the year-to-year waste acceptance rate, and maximum expected gas generation flow rate. Off-site records may be maintained if they are retrievable within 4 hours. Either hardcopy or electronic formats are acceptable. These records may be also required by the Ohio EPA, Division of Solid and Infectious Waste Management.

(6) The permittee shall monitor surface concentrations of methane on a quarterly basis as follows:

a. Monitor surface concentrations of methane, in ppm along the entire perimeter of the collection area and along a pattern spaced 30 meters apart (or a site-specific established spacing) and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover for each collection area.

b. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

c. Surface emission monitoring shall be performed in accordance with Section 4.3.1 of Method 21 of Appendix A of 40 CFR Part 60, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

d. Any reading of 500 ppm or more above background at any location shall be recorded as a monitored exceedance and the actions specified below shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements listed in c)(5):

i. The location of each monitored exceedance shall be marked and the location recorded.

ii. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be remonitored within 10 calendar days of detecting the exceedance.

iii. If the remonitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the remonitoring shows a third exceedance for the same location, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a

corresponding time line for installation may be submitted to the Ohio EPA for approval. No further monitoring of that location is required until the action specified has been taken.

iv. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day remonitoring specified above shall be remonitored 1 month from the initial exceedance. If the 1-month remonitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified above shall be taken.

e. The monitor used shall meet the requirements of 40 CFR Part 60.755(c).

(7) The permittee shall perform daily inspections to check for the presence of visible emissions from the open flare when the open flare is in operation during daylight hours. The results of this inspection shall be collected and recorded in a log book along with the corrective actions taken to eliminate any visible emissions.

(8) The permittee shall maintain records of the following information:

a. The waste shipment record form for each shipment of ACM.
b. The location, depth and area, and quantity, in cubic yards, of all ACM within the disposal site, on a map or diagram of the disposal area.

(9) The permittee shall require that all asbestos waste shipments received be accompanied by a waste shipment record. The waste shipment records shall include the following information:

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

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

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

d. The name and address of the local, State or USEPA regional agency responsible for administering the asbestos NESHAP program.

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

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

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

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

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

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

k. Signature by the transporter to acknowledge receipt of the asbestos-containing waste shipment described by the waste generator in (9)a. through (9)i.

l. A discrepancy indication space to be completed by the transporter or waste shipment owner or operator if any improperly contained asbestos waste is observed or if there is any discrepancy in the quantity of asbestos shipped and the quantity of asbestos waste received at the asbestos waste disposal site. Significant amounts of improperly contained waste shall be reported in writing to the Ohio EPA by the following working day. The report shall include a copy of the waste shipment.

m. The name and telephone number of the disposal site operator.

n. Signature by the waste disposal site operator to acknowledge receipt of the asbestos-containing waste shipment described by the waste generator in conditions a. through i. above, except as noted in the discrepancy indication space.

o. The date of receipt.

The waste shipment record forms shall be retained at the facility for at least 2 years, and shall be made available for inspection upon request.

(10) The permittee shall maintain the following information for the life of the control equipment (recovery and treatment system and/or flare) as measured during the initial performance test or compliance demonstration:

a. The maximum expected gas generation flow rate, in cubic meters/year as calculated based on the following:

i. For sites with unknown year-to-year solid waste acceptance rate:

$$Qm = 2(Lo) \times (R) \times [(e^{-kc}) - (e^{-kt})]$$

where,

Qm = maximum expected gas generation flow rate, cubic meters per year
Lo = methane generation potential, cubic meters per megagram solid waste
R = average annual acceptance rate, megagrams per year
k = methane generation rate constant, per year
t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the

landfill, whichever is less (If the equipment is installed after closure, t is the age of the landfill at installation), years
c = time since closure, years (for an active landfill c = 0 and (e^{-kc}) = 1)

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

Qm = Summation of 2(k)(Lo)(Mi) x (e^{-kti} for i=1 through i=n)

where,

Qm = maximum expected gas generation flow rate, cubic meters per year
k = methane generation rate constant, per year
Lo = methane generation potential, cubic meters per megagram solid waste
Mi = mass of solid waste in the ith section, in megagrams
ti = age of the ith section, in years

iii. If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in paragraphs d)(10)a.i and d)(10)a.ii. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in paragraphs d)(10)a.i or d)(10)a.ii or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment. (The permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Ohio EPA.).

b. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR Part 60.759(a)(1).

c. The flare type (i.e., steam-assisted, air-assisted, or non-assisted).

d. All visible emissions readings.

e. Heat content determinations of the gas.

f. Flow rate or bypass flow rate measurements.

g. Exit velocity determinations made during the performance test as specified in 40 CFR Part 60.18.

h. Continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the flare pilot flame or flare flame was absent.

(11) The permittee shall properly install, operate, and maintain a device to continuously monitor the flare pilot flame or the flare flame when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall record the following information each day:

a. all periods during which there was no pilot flame or flare flame, when the emissions unit was in operation; and
b. the downtime for the flare and monitoring equipment when the collection and control system was in operation.

(12) Except as otherwise provided in this section, the permittee shall perform inspections of the landfill operation areas for visible emissions of fugitive dust in accordance with the following frequencies:

landfill areasminimum inspection frequency.

all landfill areas once daily during normal operation.

(13) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures for fugitive dust emissions. The inspections shall be performed during representative, normal operating conditions. No inspection shall be necessary for a landfill operating 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 1 week.

(14) The permittee may, upon receipt of written approval from the Hamilton County Department of Environmental Services, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

(15) The permittee shall maintain records of the following information:

a. The date and reason any required inspection was not performed, 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.

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.

(16) The permittee shall maintain daily records of the amount of landfill waste (excluding composting raw material and unprocessed and/or shredded tires) received and the amount of solidwaste as defined in OAC rule 3745-27-01(S)(23) (excluding composting raw material and unprocessed and/or shredded tires) received.

(17) The permittee shall maintain an annual record which documents the controls systems which were employed to control the landfill gas emissions during the previous calendar year.

(18) The permittee shall maintain records which document the annual CO emissions for this emissions unit.

e) Reporting Requirements

(1) In the event of a potential emergency, such as a fire within the landfill, wells affected may be temporarily shut off, which could result in a positive gauge pressure. The Hamilton County Department of Environmental Services shall be notified within 1 working day of any shutdowns of any wells due to emergency only.

(2) The permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. An identification of each month during which the gauge pressure in the gas collection header at each individual well gave a positive pressure reading, the actual gauge pressure reading for each such month, and the length of time of the exceedance.

b. An identification of each 3-hour block of time during which the average combustion temperature within the enclosed combustor(s), when the emissions unit was in operation, was more than 82.4 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)(b).

c. An identification of each month during which the temperature and nitrogen or oxygen limitations specified in c)(4) were exceeded, the value of the exceedance, and the length of time of the exceedance.

d. An identification of each quarter during which the methane concentration measured at the surface of the landfill was greater than or equal to 500 ppm above the background levels, including the location and concentration of the exceedance.

e. All periods when the gas stream is diverted from the control device or recovery system through a bypass line or the indication of bypass flow or any record which indicates that the bypass line valve was not maintained in the closed position.

f. A listing of all periods when the collection system was not operating in excess of 5 days.

g. A listing of all days when visible emissions were present at the open flare and the corrective actions taken to eliminate the visible emissions.

h. 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.

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

j. All periods of time during which the flare pilot flame or the flare flame was not present (the reports shall include the date, time, and duration of each such period) when the emissions unit was in operation.

k. Description and duration of all periods when the recovery and treatment system was not operating for a period exceeding 1 hour and the length of time the recovery and treatment system was not operating.

Should a deviation occur, the deviation report shall include details sufficient to determine compliance with the time line provisions established under 40 CFR Part 60.755.

(3) The permittee shall submit semi-annual reports that include any record indicating the date of installation and the location of each well or collection system expansion added pursuant to 40 CFR Parts 60.755(a)(3), (b), and (c)(4). The reports shall be submitted by January 31 and July 31 of each year.

(4) The permittee shall submit a closure report to the Hamilton County Department of Environmental Services within 30 days of waste acceptance cessation. The Ohio EPA may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR Part 258.60. If a closure report has been submitted to the Ohio EPA, no additional wastes may be placed into the landfill without filing a notification of modification as described in 40 CFR Part 60.7(a)(4).

(5) The permittee shall submit an equipment removal report to the Hamilton County Department of Environmental Services 30 days prior to removal or cessation of operation of the control equipment. The equipment removal report shall contain the information specified in 40 CFR Part 60.757(e)(1). The Ohio EPA may request additional information as may be necessary to verify that all of the conditions for removal in 40 CFR Part 60.752(b)(2)(v) have been met.

(6) The permittee shall submit the following information with the initial performance test report required pursuant to 40 CFR Part 60.8:

a. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion.

b. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based.

c. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material.

d. The sum of the gas generation flow rate for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area.

e. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill.

f. The provisions for the control of off-site migration.

(7) The permittee shall submit written notification to the Director and to the board of health having jurisdiction, and place a copy of the notification in the operating record, as to the actual date that the unit(s) of the sanitary landfill facility ceased to accept solid waste, in accordance with paragraph (E) of rule OAC rule 3745-27-11. Written notification shall be received by the Director by no later than 7 days after the date specified in the notification.

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

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

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

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

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

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

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

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

a. Scheduled starting and completion dates.

b. Reason for disturbing the waste.

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

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

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

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

a. Each day during which an asbestos and/or non-asbestos material handling operation inspection was not performed by the required frequency.

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

(15) As outlined in 40 CFR Part 63.1965, a deviation occurs when the control device operating parameter boundaries described in 40 CFR Part 60.758(c)(1) of Subpart WWW are exceeded. A deviation also occurs when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour.

(16) A deviation occurs when a startup, shutdown, malfunction plan is not developed, implemented, or maintained on site.

(17) The permittee shall notify the Hamilton County Departmental of Environmental Services in writing of any daily record which shows the amount of solidwaste as defined in OAC rule 3745-27-01(S)(23) (excluding composting raw material and unprocessed and/or shredded tires) received exceeded 10,000 tons without prior approval by the Director of Ohio EPA. The notification shall include a copy of such record and shall be sent to the Hamilton County Departmental of Environmental Services within 30 days after the exceedance occurs.

(18) The permittee shall also submit annual reports that specify the total NMOC, CO, PE, PM10, NOx, SO2, HCl, HF, H2S, methane, CFC-11, and CFC-12 emissions from this

emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific data for this emissions unit in the annual Fee Emission Report.

(19) The permittee shall submit to the Hamilton County Department of Environmental Services quarterly reports that specify the control options, which are outlined in g)(5), that were used and their corresponding time period. These reports shall be submitted no later than January 31, April 30, July 31, and October 31 and shall cover the previous calendar quarters.

(20) All quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) and b)(2) shall be determined in accordance with the following methods:

a. Emission Limitation:

No visible emissions from an open flare, except for periods not to exceed 5 minutes during any 2 consecutive hours.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with Method 22 of 40 CFR Part 60, Appendix A.

b. Emission Limitation:

Control efficiency of 98%, by weight, or reduce the outlet NMOC emission concentration to less than 20 ppm.

Applicable Compliance Method:

Emission testing (see f)(2)) using the following test methods to demonstrate compliance:

for NMOC - Methods 1 through 4 and 25, 25C or 18, as appropriate, of 40 CFR Part 60, Appendix A.

(Alternative, U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.)

c. Emission Limitation:

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

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

d. Emission Limitation:

Visible particulate emissions from any new gas plant (Plants 3 and 4) stack shall not exceed 20% opacity, as a 6-minute average. Visible particulate emissions from any existing gas plant (Plants 1 and 2) stack shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A.

e. Emission Limitation:

No visible emissions from asbestos-containing materials.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with Method 22 of 40 CFR Part 60, Appendix A.

f. Emission Limitations:

Emissions from the existing gas recovery plants (Plants 1 and 2 stack emissions) shall not exceed the following:

NMOC emissions shall not exceed 7.91 lbs/hr and 34.65tons/yr;

CO emissions shall not exceed 15.92lbs/hour and 69.77 tons/yr;

PE emissions shall not exceed 0.2 lb/hr and 0.86 ton/yr;

PM10 emissions shall not exceed 0.2 lb/hr and 0.86 ton/yr;

NOx emissions shall not exceed 3.75 lbs/hr and 16.52 tons/yr; and

SO2 emissions shall not exceed 1.62 lbs/hr and 7.11 tons/yr.

Applicable Compliance Methods:

If required, compliance with the hourly emission limitations shall be demonstrated through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, 18, 25 or 25C, 10, 5, 7, and 6 for NMOC, CO, PE, NOx, and SO2, respectively, and 40 CFR Part 51, Appendix M, Method 201, for PM10.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual emission limitations were established by multiplying the hourly emission limitations by 8,760 and dividing by 2,000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitations compliance with the annual emission limitations will also be demonstrated.

g. Emission Limitations:

Emissions from the existing gas recovery plants (Plants 1 and 2 stack emissions) shall not exceed the following:

Methane emissions shall not exceed 599 tons/yr;

HCl emissions shall not exceed 25.62 tons/yr; and

HF emissions shall not exceed 3.28 tons/yr.

Applicable Compliance Method:

Compliance with these emission limitations shall be demonstrated by the emission factors, control efficiencies (if applicable) and the operational parameters as submitted in PTI application 14-05302 (April 8, 2002). The emission factors used were USEPA's Landfill Gas Emissions Model along with AP-42 Section 2.4 dated 11/98.

h. Emission Limitations:

Emissions from the various control options (stack emissions) shall not exceed the following:

NMOC emissions under any option shall not exceed 3.83 lbs/hr and 16.79 tons/yr;

CO emissions shall not exceed 95.4lbs/hr (New Enclosed Combustors Option) 48.18 lbs/hr (New Gas Recovery Plants 3 and 4 Option) and 417.91 tons/yr (the New Enclosed Combustors Option, New Utility Flares Option, and New Combined Control Devices Option)*;

CO emissions from the New Gas Recovery Plants (Plants 3 and 4) Option only shall not exceed 211.03 tons/year*;

CO emissions from the New Utility Flares Option shall not exceed 123.44 lbs/hr;*

PE shall not exceed 7.3 lbs/hr and 31.87 tons/yr (from the New Enclosed Combustors Option, New Utility Flares Option, and New Combined Control Devices Option);

PE from the New Gas Recovery Plants (Plants 3 and 4) Option only shall not exceed 2.75 lbs/hr and 12.04 tons/yr;

NOx emissions under any option shall not exceed 26.0 lbs/hr and 113.83 tons/yr*; and

HCl emissions under any option shall not exceed 10.3 lbs/hr and 45.18 tons/yr.

Applicable compliance Methods:

Compliance with the hourly emission limitations shall be demonstrated through the emission testing requirements specified in f)(2), except for the open flare, which is based on the factory specifications.

The annual emission limitations were established by multiplying the hourly emission limitations by 8,760 and dividing by 2,000 lbs/ton, except for CO. Therefore, provided that the permittee complies with the hourly emission limitations compliance with the annual emission limitations will also be demonstrated. The permittee will maintain records of the CO emissions and submit annual reports as outlined in d)(18) and e)(18).

i. Emission Limitations:

Emissions from the various control options (stack emissions) shall not exceed the following:

PM10 emissions shall not exceed 7.3 lbs/hr and 31.87 tons/yr (from the New Enclosed Combustors Option, New Utility Flares Option, and New Combined Control Devices Option)*;

PM10 emissions from the New Gas Recovery Plants (Plants 3 and 4) Option only shall not exceed 2.75 lbs/hr and 12.04 tons/yr*;

SO2 emissions under any option shall not exceed 6.7 lbs/hr and 29.3 tons/yr;

HF emissions under any option shall not exceed 1.7 lbs/hr and 7.28 tons/yr;

Methane emissions under any option shall not exceed 1563 tons/yr;

CFC-11 emissions under any option shall not exceed 0.02 ton/yr*; and

CFC-12 emissions under any option shall not exceed 0.37 ton/yr*.

Applicable Compliance Method:

If required, compliance with the hourly emission limitations shall be demonstrated through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and 6 and 13 for SO2, and HF respectively, and 40 CFR Part 51, Appendix M, Method 201 for PM10. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual emission limitations were established by multiplying the hourly emission limitations by 8,760 and dividing by 2,000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitations compliance with the annual emission limitations will also be demonstrated.

Applicable Compliance Method:

Compliance with the annual methane, CFC-11, and CFC-12 emission limitations shall be demonstrated by the emission factors, control efficiencies (if applicable) and the operational parameters as submitted in PTI application 14-05824 submitted March 14, 2006. The emission factors used were USEPA's Landfill Gas Emissions Model along with AP-42 Section 2.4 dated 11/98.

j. Emission Limitations:

Fugitive emissions from this emissions unit shall not exceed the following:

NMOC emissions shall not exceed 745.70 tons/yr;

CO emissions shall not exceed 34.18 tons/yr;

PM emissions shall not exceed 0.56 ton/yr;

PM10 emissions shall not exceed 0.27 ton/yr;

H2S emissions shall not exceed 10.47 tons/yr;

CFC-11 emissions shall not exceed 0.90 ton/yr; and

CFC-12 emissions shall not exceed 16.43 tons/yr.

Methane emissions before the vertical and southern expansion shall not exceed 28,588 tons/yr.

Methane emissions from both the vertical and southern expansion shall not exceed 45,029 tons/yr.

Applicable Compliance Method:

Compliance with these emission limitations shall be demonstrated by the emission factors, control efficiencies (if applicable) and the operational parameters as submitted in PTI application 14-05824 submitted March 14, 2006. The emission factors used were USEPA's Landfill Gas Emissions Model along with AP-42 Section 2.4 dated 11/98.

(2) The permittee shall conduct, or have conducted, emission testing for the gas recovery plants (Plants 1 and 4) TOX units and the new gas recovery off-spec combustor in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after startup of the new gas recovery plant (Plant 4) and within six months after beginning operation of the new TOx unit for Plant 1.

b. The emission testing shall be conducted to demonstrate compliance with the PE, NOx, CO, HCl, and NMOC stack emission limitations specified in b)(1).

c. The following test methods shall be employed to demonstrate compliance with the emission limitations:

for PE, Methods 1 through 5 of 40 CFR Part 60, Appendix A;

for NOx, Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A;

for CO, Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A;

for HCl, Methods 1 through 4 and 26 of 40 CFR Part 60, Appendix A;

for NMOC, Methods 1 through 4 and 25, 25C or Method 18, as appropriate, 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

e. Visible emission testing of open utility flares shall be conducted in accordance with the methods specified in Method 22 of 40 CFR Part 60, Appendix A.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s)of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Hamilton County Department of Environmental Services refusal to accept the results of the emission test(s).

Personnel from the Hamilton County Department of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

(3) The nitrogen level shall be determined using Method 3C of 40 CFR Part 60, Appendix A, unless an alternative test method is established, as allowed by 40 CFR Part 60.752(b)(2)(i).

(4) The oxygen level shall be determined by an oxygen meter using Method 3A or 3C of 40 CFR Part 60, Appendix A, unless an alternative test method is established, as allowed by 40 CFR Part 60.752(b)(2)(i), except that:

a. the span shall be set so that the regulatory limit is between 20% and 50% of the span;

b. a data recorder is not required;

c. only 2 calibration gases are required, a zero and span, and ambient air may be used as the span;

d. a calibration error check is not required; and

e. the allowable sample bias, zero drift, and calibration drift are plus or minus 10%.

(5) After the installation of a collection and control system in compliance with 40 CFR Part 60.755, the permittee shall calculate the NMOC emission rate for the purposes of determining when the system can be removed as provided in 40 CFR Part 60.752(b)(2)(v) in accordance with the equation and procedures specified in 40 CFR Parts 60.754(b), (b)(1), and (b)(2). The permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Ohio EPA, as provided in 40 CFR Part 60.752(b)(2)(i)(B).

(6) The flow rate of landfill gas, Q_{lfg}, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of Appendix A of 40 CFR Part 60.

(7) The average NMOC concentration, C_{nmoc}, shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25, 25C or 18, as appropriate, of Appendix A of 40 CFR Part 60. If using Method 18 of Appendix A of 40 CFR Part 60, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The permittee shall divide the NMOC concentration from Method 25C of Appendix A of 40 CFR Part 60 by 6 to convert from C_{nmoc} as carbon to C_{nmoc} as hexane.

(8) The permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Director.

g) Miscellaneous Requirements

(1) The terms and conditions listed in this Permit to Install shall supersede all the air pollution control requirements contained in P0105702 as issued on July 15, 2010.

(2) The following terms and conditions in this Permit to Install will become effective upon commencement of construction of the phase of the Vertical Expansion that increases the capacity of the landfill above the permitted limitation in PTI 05-3567 as issued on February 17, 1994:

1.b)(2)e. and 1.b)(2)g., 1.d)(12) through 1.d)(15), 1.e)(2)h. and 1.e)(2)i., 1.e)(14), 1.f)(1)c., 1.f)(1)d.

Commencement of construction is defined as placing of additional soil liner in the phase of the Vertical Expansion that increases the capacity of the landfill above the permitted limitation in PTI 05-3567 as issued on February 17, 1994.

The following terms and conditions in this Permit to Install will become effective upon commencement of construction of the first phase of the Southern Expansion as outlined in PTI application 14-05292:

b)(1) (emissions from the new gas recovery plants 3 and 4 only), b)(2)g., c)(19), e)(17), e)(18) and f)(1)h. through f)(1)j. (emissions from the new gas recovery plants 3 and 4 only)

Commencement of construction is defined as placement of the additional soil liner in the first phase of the Southern Expansion.

(3) Nothing in g)(2) shall prohibit the permittee from complying with the requirements of OAC rule 3745-31-06.

(4) Emissions from the existing gas plants (Plant #1 and #2) include emissions from two thermal oxidizer (TOX) units and one off-spec gas combustor. The off-spec gas combustor is used only for destruction of off-spec processed gas and not unprocessed landfill gas. For purposes of compliance with 40 CFR 60 Subpart WWW, only the thermal oxidizers are defined as "enclosed combustors" per 40 CFR 60.751.

(5) This Permit to Install allows the control of landfill gas (LFG) emissions under four scenarios: NSPS Enclosed Combustors Option, New Gas Recovery Plants (Plants 3 and 4) Option, New Utility Flares Option, and New Combined Control Devices Option.

The NSPS Enclosed Combustors Option involves the use of four new stand-alone enclosed flares and results in no LFG recovery, only full destruction of collected LFG. For purposes of compliance with 40 CFR 60 Subpart WWW, these new stand-alone enclosed flares are defined as “enclosed combustors” per 40 CFR 60.751.

The New Gas Recovery Plants Option involves the use of two new gas recovery plants (Plants 3 and 4) with thermal oxidizer(s) (TOX) unit(s) and one enclosed flare off-spec gas combustor shared by both new gas recovery plants (Plants 3 and 4). The two new gas recovery plants (Plants 3 and 4) may have one shared thermal oxidizer or their own individual thermal oxidizers. The New Gas Recovery Plants (Plants 3 and 4) Option results in LFG recovery with the use of thermal oxidizer(s) for control of exhaust streams from the various LFG refining stages and the use of an off-spec gas combustor for typically discharging off-spec gas on an infrequent and intermittent basis. The offspec gas combustor is only used for destruction of raw LFG in the event of the shutdown of the new gas recovery plants (Plants 3 and 4), operational considerations, or poor gas quality (off-spec processed gas). For purposes of compliance with 40 CFR 60 Subpart WWW, the thermal oxidizer(s) and the off-spec gas combustor are defined as “enclosed combustors” per 40 CFR 60.751.

The New Utility Flares Option involves the use of two new open utility flares for LFG destruction in the event of the new gas recovery plants (Plants 3 and 4) being shut down or poor gas quality. The New Utility Flare Option results in no LFG recovery, only full

destruction of collected LFG. For purposes of compliance with 40 CFR 60 Subpart WWW, the utility flare is defined as a “flare” and is not considered an “enclosed combustor” under 40 CFR 60.751.

The New Combined Control Devices Option involves the use of any combination of the four scenarios described above including new stand alone enclosed flare(s), new gas recovery plant(s) (Plants 3 and 4) with thermal oxidizer(s) and enclosed flare off-spec gas combustor, and/or new utility flare(s).

The emission limitations are identical for the four scenarios with the exception of the hourly and annual CO and PE/PM10 emission limits for the New Gas Recovery Plants (Plants 3 and 4) Option, which were lowered due to dispersion modeling results, and the CO hourly emission limit for the New Utility Flares Option, which was based on the utility flare manufacturer CO emission rate of 0.37 lb/mmBTU.