

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

6/3/2014

Certified Mail

Mr. Chris Jaquet  
Lorain County Facilities  
22730 Fairview Center Drive  
Suite 100  
Fairview, OH 44126

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL

Facility ID: 0247000760  
Permit Number: P0116017  
Permit Type: OAC Chapter 3745-31 Modification  
County: Lorain

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

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, The Chronicle Telegram. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall  
Permit Review/Development Section  
Ohio EPA, DAPC  
50 West Town Street, Suite 700  
P.O. Box 1049  
Columbus, Ohio 43216-1049

and Ohio EPA DAPC, Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171.

Sincerely,

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

Cc: U.S. EPA Region 5 -Via E-Mail Notification  
Ohio EPA-NEDO; Canada





## Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description: This is a Municipal Solid Waste (MSW) Landfill (LF) undergoing an expansion. Part of the expansion includes expanding the Gas Capture and Control System. Since the LF will be depositing more waste, more LF gas (LFG) is expected to be generated. This permit is for the added control equipment to deal with the increase in LFG that is expected.

The LF is already permitted for two-5,500 cfm enclosed combustors, one - 2,000 cfm enclosed combustor, and one - 3,000 cfm utility (candle) flare. This permit is to install an additional 3,000 cfm enclosed combustor.

3. Facility Emissions and Attainment Status: Lorain County is non-attainment for ozone, hence NO<sub>x</sub> and VOC emission trigger values are decreased from 250 TPY to 100 TPY for PSD purposes. The facility is already allowed to emit more than 100 TPY of NO<sub>x</sub>, therefore if NO<sub>x</sub> or VOC emissions exceed 40 TPY from this installation LAER would be triggered.

Greenhouse Gasses (GHG) also must be considered. The facility already has the potential to emit over 200,000 tons of CO<sub>2</sub>e; therefore, the facility is a major facility for PSD purposes. Any increase in GHG emissions greater than 75,000 tons of CO<sub>2</sub>e, would trigger a PSD review.

The PTE, of criteria pollutants, from the new 3,000 cfm enclosed combustor are sufficiently low enough not to trigger a PSD review. But this is not the case for GHGs. The PTE (of GHG) of the new 3,000 cfm Enclosed combustor is 91,306 TPY of CO<sub>2</sub>e (which is more than the trigger value of 75,000 TPY CO<sub>2</sub>e). Therefore, the facility has decided to take a voluntary restriction. They would like to restrict the new 3,000 cfm enclosed combustor to an average of 2,200 cfm of LFG, in doing this the CO<sub>2</sub>e value is reduced to 66,930 TPY of CO<sub>2</sub>e, which is less than 75,000 TPY of CO<sub>2</sub>e and therefore, PSD is not triggered.

4. Source Emissions:

Facility emissions prior to this permit:

Equipment	NO <sub>x</sub>	CO	SO <sub>2</sub>	HCl	PM <sub>10</sub>	CO <sub>2</sub> e	
2000 cfm	14.45	28.91	4.23	2.04	4.91	33,226	
5500 cfm	39.75	79.5	12.09	5.84	13.52	91,636	
5500 cfm	39.75	79.5	12.09	5.84	13.52	91,636	
Combined (3k utility, both 5.5k combustors)	79.5	159	23.28	11.24	27.04	183,272	



P005	4.9	1.15	0.35			Unknown	
P006	4.9	1.15	0.35			Unknown	
<b>Total</b>	<b>103.75</b>	<b>190.21</b>	<b>29.26</b>	<b>13.79</b>	<b>27.18</b>	<b>216,498</b>	

Lorain County is Non-Attainment for ozone (NO<sub>x</sub> and VOC).

Note: NO<sub>x</sub> emissions are greater than 100 TPY, and CO<sub>2</sub>e is greater than 200,000 TPY

Since NO<sub>x</sub> emissions are above 100 TPY and this is located in a non-attainment (for ozone) county, we need to look at the increases that are proposed. If NO<sub>x</sub> or VOC emissions exceed 40 TPY or CO<sub>2</sub>e emissions exceed 75,000 TPY then LAER is triggered.

Unrestricted 3,000 cfm Enclosed Combustor:

Equipment	NO <sub>x</sub>	CO	SO <sub>2</sub>	HCl	PM <sub>10</sub>	CO <sub>2</sub> e
3000 cfm	21.68	43.36	6.35	3.07	7.37	91,306

Note: CO<sub>2</sub>e exceeds 75,000 TPY. The facility must perform a LAER study or except restrictions to keep CO<sub>2</sub>e emissions below 75,000 TPY.

The facility has proposed to limit the new 3,000 cfm enclosed combustor to 2,200 cfm. Thus making the new emissions from this installation (with the restrictions):

Equipment	NO <sub>x</sub>	CO	SO <sub>2</sub>	HCl	PM <sub>10</sub>	CO <sub>2</sub> e
3000 cfm (restricted to 2200 cfm)	15.9	31.8	4.65	2.25	5.41	66,930

Note: CO<sub>2</sub>e emissions are now below 75,000 TPY.

5. Conclusion:

The installation of a new 3000 cfm enclosed combustor that will be restricted to burning 2200 cfm is permissible.

6. Please provide additional notes or comments as necessary:

None



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

<u>Pollutant</u>	<u>Tons Per Year</u>
CO	219.71
NO <sub>x</sub>	109.85
SO <sub>2</sub>	32.16
PM <sub>10</sub>	37.36
HCl	15.53



PUBLIC NOTICE  
Issuance of Draft Air Pollution Permit-To-Install  
Lorain County Facilities

Issue Date: 6/3/2014

Permit Number: P0116017

Permit Type: OAC Chapter 3745-31 Modification

Permit Description: Chapter 31 modification for an expansion of the landfill. The expansion translates to potentially more landfill gas being generated; therefore, the landfill must have the capability of controlling additional landfill gas that is generated. The facility is adding a 3000 scfm enclosed combustor.

Facility ID: 0247000760

Facility Location: Lorain County Facilities  
43502 Oberlin-Elyria Road,  
Oberlin, OH 44074

Facility Description: Solid Waste Landfill

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the permit # or: Erik Bewley, Ohio EPA DAPC, Northeast District Office, 2110 East Aurora Road, Twinsburg, OH 44087. Ph: (330)425-9171





**DRAFT**

**Division of Air Pollution Control  
Permit-to-Install  
for  
Lorain County Facilities**

Facility ID:	0247000760
Permit Number:	P0116017
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	6/3/2014
Effective:	To be entered upon final issuance





**Division of Air Pollution Control**  
**Permit-to-Install**  
for  
Lorain County Facilities

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**Draft Permit-to-Install**  
Lorain County Facilities  
**Permit Number:** P0116017  
**Facility ID:** 0247000760

**Effective Date:** To be entered upon final issuance

## Authorization

Facility ID: 0247000760  
Facility Description: Solid waste disposal and recycling facility  
Application Number(s): A0048583  
Permit Number: P0116017  
Permit Description: Chapter 31 modification for an expansion of the landfill. The expansion translates to potentially more landfill gas being generated; therefore, the landfill must have the capability of controlling additional landfill gas that is generated. The facility is adding a 3000 scfm enclosed combustor.  
Permit Type: OAC Chapter 3745-31 Modification  
Permit Fee: \$400.00 *DO NOT send payment at this time, subject to change before final issuance*  
Issue Date: 6/3/2014  
Effective Date: To be entered upon final issuance

This document constitutes issuance to:

Lorain County Facilities  
43502 Oberlin-Elyria Road  
Oberlin, OH 44074

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

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

Ohio EPA DAPC, Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087  
(330)425-9171

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler  
Director



## Authorization (continued)

Permit Number: P0116017

Permit Description: Chapter 31 modification for an expansion of the landfill. The expansion translates to potentially more landfill gas being generated; therefore, the landfill must have the capability of controlling additional landfill gas that is generated. The facility is adding a 3000 scfm enclosed combustor.

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

**Emissions Unit ID:**

Company Equipment ID:  
Superseded Permit Number:  
General Permit Category and Type:

**F001**

Roadway Activity  
02-13577  
Not Applicable

**Emissions Unit ID:**

Company Equipment ID:  
Superseded Permit Number:  
General Permit Category and Type:

**F002**

Landfill Operations  
P0106053  
Not Applicable



**Draft Permit-to-Install**  
Lorain County Facilities  
**Permit Number:** P0116017  
**Facility ID:** 0247000760  
**Effective Date:** To be entered upon final issuance

## **A. Standard Terms and Conditions**



## **1. Federally Enforceable Standard Terms and Conditions**

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
  - (1) Standard Term and Condition A.2.a), Severability Clause
  - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
  - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
  - (4) Standard Term and Condition A.9., Reporting Requirements
  - (5) Standard Term and Condition A.10., Applicability
  - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
  - (7) Standard Term and Condition A.14., Public Disclosure
  - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
  - (9) Standard Term and Condition A.16., Fees
  - (10) Standard Term and Condition A.17., Permit Transfers

## **2. Severability Clause**

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

## **3. General Requirements**

- a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.



- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

#### **4. Monitoring and Related Record Keeping and Reporting Requirements**

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - (1) The date, place (as defined in the permit), and time of sampling or measurements.
  - (2) The date(s) analyses were performed.
  - (3) The company or entity that performed the analyses.
  - (4) The analytical techniques or methods used.
  - (5) The results of such analyses.
  - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.



- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Northeast District Office. The written reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
  - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Ohio EPA DAPC, Northeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## **5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northeast District Office 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) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted



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

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the Ohio EPA DAPC, Northeast District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

## **7. Best Available Technology**

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



**8. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**9. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**10. Applicability**

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a Permit-to-Install.

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

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the



Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

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

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

## **12. Permit-To-Operate Application**

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.



**13. Construction Compliance Certification**

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

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

**14. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

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

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

**16. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

**17. Permit Transfers**

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

**18. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

**19. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.



**Draft Permit-to-Install**  
Lorain County Facilities  
**Permit Number:** P0116017  
**Facility ID:** 0247000760  
**Effective Date:** To be entered upon final issuance

## **B. Facility-Wide Terms and Conditions**



**Draft Permit-to-Install**  
Lorain County Facilities  
**Permit Number:** P0116017  
**Facility ID:** 0247000760

**Effective Date:** To be entered upon final issuance

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.



**Draft Permit-to-Install**  
Lorain County Facilities  
**Permit Number:** P0116017  
**Facility ID:** 0247000760  
**Effective Date:** To be entered upon final issuance

## **C. Emissions Unit Terms and Conditions**



1. F001, Roadway Activity

Operations, Property and/or Equipment Description:

Landfill Roadways and Parking Areas

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC 3704.03(T)	Work practice standards that are sufficient to minimize or eliminate particulate emissions of 10 microns or less (PM <sub>10</sub> ) in diameter.
b.	OAC rule 3745-17-08(B)	Exempt, not in an Appendix A area.
c.	OAC rule 3745-17-07(B)	Exempt, not in an Appendix A area.

(2) Additional Terms and Conditions

a. None

c) Operational Restrictions

(1) None

d) Monitoring and/or Recordkeeping Requirements

(1) Work Practice Plan

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

a. An identification of each segment of unpaved roadway or parking area for which the plan applies.

b. A determination of the frequency that each roadway or parking area will be inspected to determine if additional control measures are needed.



- c. An explanation of how it is determined if additional control measures are required or not.
- d. The identification of the record keeping form that will be used to track the inspection and treatment. This form should include, at a minimum, the following elements:
  - i. roadway or parking area segment inspected;
  - ii. date inspected;
  - iii. name of the employee doing the inspection;
  - iv. result of the inspection (needs treatment or not);
  - v. a description of why no treatment was needed;
  - vi. date treated;
  - vii. name of the employee treating the segment; and
  - viii. method used to treat the segment.
- e. A description of how and where the records shall be maintained. Records must be kept for at least five years.

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

(2) Work Practice Inspections

Except as otherwise provided in this section, the permittee shall perform inspections of each of the roadway segments and parking areas at frequencies described in the Work Practice Plan. The purpose of the inspections is to determine the need for implementing control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such events have ended, except if the next required inspection is within one week.

(3) Work Practice Plan Record Keeping

The permittee shall maintain records of the following information:

- a. the records required to be collected under the Work Practice Plan; and



- b. the date and reason any element of the Work Practice Plan was not implemented.
  
- e) Reporting Requirements
  - (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
  - (2) The permittee shall submit semiannual deviation reports concerning any failure to implement the Work Practice Plan.
  - (3) Within 30 days from the final issuance of this permit, the permittee shall submit their proposed Work Practice Plan to the Northeast District Office.
  
- f) Testing Requirements
  - (1) None.
  
- g) Miscellaneous Requirements
  - (1) None.



**2. F002, Landfill Operations**

**Operations, Property and/or Equipment Description:**

F002 - Landfill Operations at Lorain County Landfill #1 and #2, includes a 2000 scfm enclosed combustor at landfill #1, two 5500 scfm enclosed combustors at landfill #2, a 3000 scfm utility flare at landfill #2, and a 3000 scfm enclosed combustor at landfill #2.

- 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) d)(11), d)(12), d)(13), d)(14) and e)(5)
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(T)	<p><b>Each Enclosed Combustor (2000 cfm, 3000 cfm, 5500 cfm):</b>            Designed to meet carbon monoxide (CO) emissions of 0.10 lb/mmBtu actual heat input.</p> <p>Designed to meet nitrogen oxide (NO<sub>x</sub>) emissions of 0.05 lb/mmBtu actual heat input.</p> <p><b>3000 cfm Utility Flare:</b>            Designed to meet CO emissions of 0.37 lb/mmBtu actual heat input.</p> <p>Designed to meet NO<sub>x</sub> emissions of 0.068 lb/mmBtu actual heat input.</p> <p><b>Each 5500 cfm Enclosed Combustor:</b>            Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 1.01 tons per month, averaged over a 12-month rolling period.</p> <p>Particulate matter emissions less than 10 microns in diameter (PM<sub>10</sub>) shall not exceed 1.13 tons per month, averaged over a 12-month rolling period.</p> <p>(All particulate emissions from the enclosed combustor are PM<sub>10</sub>).</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p><b>Landfill Operations</b>            Work practice standards that are sufficient to minimize or eliminate particulate emissions and fugitive landfill gas emissions (volatile organic compounds).</p> <p>See b)(2)l.</p>
b.	OAC rule 3745-31-05(D)	<p><b>Combined emissions from both 5500 cfm combustors and the 3000 cfm utility flare:</b>            CO emissions shall not exceed 159.0 tons per year as a rolling, 12-month summation.</p> <p>NO<sub>x</sub> emissions shall not exceed 79.5 tons per year as a rolling, 12-month summation.</p> <p>PM<sub>10</sub> emissions shall not exceed 27.04 tons per year as a rolling, 12-month summation.</p> <p>SO<sub>2</sub> emissions shall not exceed 24.18 tons per year as a rolling, 12-month summation.</p> <p>Hydrogen chloride (HCl) emissions shall not exceed 11.68 tons per year as a rolling, 12-month summation.</p> <p>See b)(2)c.</p>
c.	OAC rule 3745-31-05(D) OAC rule 3745-31-05(E)	<p><b>3000 cfm Enclosed Combustor:</b>            CO emissions shall not exceed 31.8 tons per year as a rolling, 12-month summation.</p> <p>NO<sub>x</sub> emissions shall not exceed 15.9 tons per year as a rolling, 12-month summation.</p> <p>SO<sub>2</sub> emissions shall not exceed 4.84 tons per year as a rolling, 12-month summation.</p> <p>HCl emissions shall not exceed 2.33 tons per year as a rolling, 12-month summation.</p> <p>PM<sub>10</sub> emissions shall not exceed 5.41 tons per year as a rolling, 12-month summation.</p> <p>Non-methane organic compound (NMOC) emissions shall not exceed 1.56 tons per year as a rolling, 12-month summation.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		(All particulate emissions from the enclosed combustor are PM <sub>10</sub> ).  See b)(2)d.
d.	OAC rule 3745-31-05(A)(3); as effective 11/30/2001	<p><b>2000 cfm Enclosed Combustor:</b>            SO<sub>2</sub> emissions shall not exceed 0.37 ton per month averaged over a 12-month rolling period.</p> <p>HCl emissions shall not exceed 0.18 ton per month averaged over a 12-month rolling period.</p> <p>PM<sub>10</sub> emissions shall not exceed 0.41 ton per month averaged over a 12-month rolling period.</p> <p>NMOC emissions shall not exceed 0.12 ton per month, averaged over a 12-month rolling period.</p> <p>(All particulate emissions from the enclosed combustor are PM<sub>10</sub>).</p> <p><b>Each 5500 cfm Enclosed Combustor:</b>            HCl emissions shall not exceed 0.49 ton per month averaged over a 12-month rolling period.</p> <p>NMOC emissions shall not exceed 0.33 ton per month, averaged over a 12-month rolling period.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 0.13 ton per month, averaged over a 12-month rolling period.</p> <p><b>3000 cfm Enclosed Combustor:</b>            The emission limitations of SO<sub>2</sub>, PM<sub>10</sub>, HCl and NMOC established pursuant to this rule are less stringent than the limitations established pursuant to OAC rule 3745-31-05(D)(1)(a).</p> <p><b>3000 cfm Utility Flare:</b>            SO<sub>2</sub> emissions shall not exceed 0.55 ton per month averaged over a 12-month rolling period.</p> <p>PM<sub>10</sub> emissions shall not exceed 0.61 ton per month averaged over a 12-month rolling period.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		HCl emissions shall not exceed 0.27 ton per month averaged over a 12-month rolling period.  NMOC emissions shall not exceed 0.18 ton per month averaged over a 12-month rolling period.  See b)(2)a.
e.	OAC rule 3745-31-05(A)(3) as effective 12/01/2006	See b)(2)b.
f.	OAC Chapter 3745-19	See b)(2)e.
g.	40 CFR Part 60, Subpart WWW	See b)(2)f.
h.	40 CFR Part 63, Subpart AAAA	See b)(2)g.
i.	OAC rule 3745-17-08(B)	Exempt pursuant to OAC 3745-17-08(A)(1).
j.	OAC rule 3745-17-07(B)(1)	Exempt pursuant to OAC 3745-17-07(B)(11)(e).

(2) Additional Terms and Conditions

- a. The permittee has satisfied the BAT requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 TPY. However, that rule revision has not yet been approved by U.S.EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S.EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally approved SIP for Ohio. Once U.S.EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits and control measures no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan. The BAT requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the [SO<sub>2</sub>, HCl, PM<sub>10</sub>, and NMOC emissions from the 2,000 cfm enclosed combustor], to the [HCl, NMOC, and VOC emissions from each 5,500 cfm enclosed combustor], to the [SO<sub>2</sub>, PM<sub>10</sub>, HCl and NMOC emissions from the 3,000 cfm utility flare], and to the [SO<sub>2</sub>, PM<sub>10</sub>, HCl and NMOC emissions from the 3,000 cfm enclosed combustor] since the potential to emit is less than 10 tons per year.
- c. Both 5,500 cfm enclosed combustors and 3,000 cfm utility flare have been in operation for more than 12 months and, as such, the permittee has existing records to generate rolling, 12-month summations of emissions, upon issuance of this permit.



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- d. The maximum annual flow rate for the 3000 cfm enclosed combustor shall not exceed 1,156,320 Mcf (2,200 cfm x 60 min/hr x 8760 hrs/yr x Mcf/1000 cf), based upon a rolling, 12-month summation of the flow rates.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the flow rate levels specified in the following table:

Month	Maximum Allowable Cumulative Flow Rate (Mcf)
1	133,920
1-2	267,840
1-3	401,760
1-4	535,680
1-5	669,600
1-6	803,520
1-7	937,440
1-8	1,071,360
1-9	1,156,320
1-10	1,156,320
1-11	1,156,320
1-12	1,156,320

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual flow rate limitation shall be based upon a rolling, annual summation of the flow rates.

- e. There shall be no open burning, in violation of OAC chapter 3745-19, at this facility.
- f. The complete NSPS requirements, including the General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting Ohio EPA, Northeast District Office, Division of Air Pollution Control. The applicable requirements are listed in c)(1), d)(1), e)(1) and f)(2).

60.752(b)(2)(i)	Collection and control system design plan requirements
60.752(b)(2)(ii)	Collection and control system installation requirements
60.752(b)(2)(iii)	Control device design and operating requirements
60.755(a)(6)	Approval by Administrator for non-conforming GCCS
60.755(b)	Timeline for placement of wells
60.759	Active collection system specifications

- g. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting Ohio EPA, Northeast



District Office, Division of Air Pollution Control. The applicable requirements are listed in c)(2), d)(2) and e)(2).

63.1990	Definitions
63.1945	Compliance timeframe
63.1950	Termination of compliance requirements
63.1955(a)(1)	Compliance with 40 CFR Part 60, Subpart WWW
63.1955(b)	Compliance standards for collection and control system
63.1955(c)	Approval by Administrator for non-conforming GCCS

- h. If this landfill is permanently closed, the permittee shall comply with all of the applicable provisions of OAC rule 3745-20-07.
- i. The following landfill fugitive dust operations/sources are covered by this permit and subject to the above requirements:
  - i. daily cover, handling and placement;
  - ii. solid waste handling (dumping);
  - iii. spreading, grading and compaction;
  - iv. truck loading and unloading; and
  - v. soil transport.
- j. The facility cannot accept for disposal any regulated asbestos-containing material as defined in the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Asbestos, 40 CFR Part 61, Subpart M, Section 141 and OAC rule 3745-20, or any subsequent revisions to either rule. Regulated asbestos-containing material is defined to include:
  - i. friable asbestos material;
  - ii. Category I nonfriable asbestos-containing material that has become friable;
  - iii. Category I nonfriable asbestos-containing material that will be or has been subjected to sanding, grinding, cutting, or abrading; or
  - iv. Category II nonfriable asbestos-containing material that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.
- k. The permittee shall be limited to accepting only non-regulated asbestos-containing waste materials. The permittee shall ensure that any Category I nonfriable asbestos-containing waste materials accepted for disposal will not be



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subjected to sanding, grinding, cutting, or abrading and shall not become friable during processing at the landfill; and shall ensure that Category II nonfriable asbestos-containing waste materials accepted for disposal do not become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during its handling, transfer, and burial at the landfill. Any nonfriable Category I or Category II asbestos-containing material that was generated from a NESHAP source and which becomes friable, also becomes subject to the Asbestos NESHAP regulations. If any regulated asbestos-containing waste material arrives at the landfill it cannot be accepted for disposal; and if any non-regulated asbestos-containing material becomes friable after it is accepted for disposal the permittee shall:

- i. cause or permit no visible emissions to the outside air from the asbestos-containing waste materials during on-site transportation, transfer, deposition, or compacting operations;
  - ii. assure that deposition and burial operations are conducted in a manner which prevents handling by equipment or persons that causes asbestos-containing waste materials to be broken-up or dispersed before the materials are buried;
  - iii. cover the asbestos-containing waste material with at least twelve inches of nonasbestos-containing material, as soon as practicable after deposition, but no later than at the end of the operating day; and
  - iv. assure that during the unloading, deposition, burial and initial compaction of asbestos-containing waste materials, the disposal site is restricted adequately to deter unauthorized entry of the general public and any unauthorized personnel to within one hundred feet of the operations.
- I. Compliance with 40 CFR Part 60, Subpart WWW shall be sufficient to demonstrate compliance with the work practice standard to minimize fugitive landfill gas emissions (volatile organic compounds).

c) Operational Restrictions

- (1) The permittee shall comply with the applicable restrictions required under 40 CFR Part 60, Subpart WWW, including the following sections:

60.753(a)	Collection system installation requirement
60.753(b)	Collection system negative pressure requirements
60.753(c)	Wellhead operational standards
60.753(d)	Surface monitoring standards
60.753(e)	Collection or control system shutdown
60.753(f)	Operate control or treatment system
60.753(g)	Corrective action for operational parameters



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- (2) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart AAAAA, including the following sections:

63.1960	Compliance demonstration, deviations, SSM plan
63.1965	What constitutes a deviation

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

- a. As soon as practical after the placement of 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-asbestos-containing materials. Once the asbestos-containing materials are covered, the area shall 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 this permit.
- 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 or by at least 6 inches of compacted non-asbestos-containing materials with a permanent cover of vegetation over the area, or in accordance with current requirements for closure, whichever is more stringent.

d) **Monitoring and/or Recordkeeping Requirements**

- (1) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 60, Subpart WWW, including the following sections:

60.754(b)	NMOC emission rate calculation after installation of collection and control system
60.755(a)(1)	Gas generation flow rate calculation to determine compliance
60.755(a)(2)	Determining sufficient density of gas collectors
60.755(a)(3)	Gas collection system monitoring and corrective action
60.755(a)(5)	Well monitoring and corrective action
60.755(c)	Surface monitoring procedures and corrective actions
60.756(a)	Monitoring of active gas collection system
60.756(b)	Monitoring of enclosed combustor and open flare
60.756(c)	Records retention
60.756(f)	Surface monitoring frequency
60.758(a)	Record keeping requirements
60.758(b)	Record keeping for flare compliance demonstration and design
60.758(c)	Record keeping for control device parametric monitoring deviations



60.758(d)	Record keeping for gas collector map
60.758(e)	Record keeping for collection and control system exceedances

- (2) The permittee shall comply with the applicable monitoring and record keeping restrictions required under 40 CFR Part 63, Subpart AAAAA, including the following sections:

63.1960	Compliance demonstration, deviations, SSM plan
63.1965	What constitutes a deviation
63.1975	Clarification of 3-hour block averages
63.1980(a)	Record keeping according to 40 CFR 60, subpart WWW
63.1980(b)	Record keeping according to 40 CFR 63 and Table 1, NESHAP General Provisions, of this subpart including SSM plan requirements

- (3) The permittee shall maintain monthly records of the following information:
- a. the flow rate for each control device;
  - b. combined emissions (tons per rolling, 12-month summation) of CO, NO<sub>x</sub>, PM<sub>10</sub>, SO<sub>2</sub> and HCl from both 5,500 enclosed combustors and 3,000 utility flare; and
  - c. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, annual summation of the flow rate for the 3,000 cfm enclosed combustor.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative flow rate for each calendar month for the 3,000 cfm enclosed combustor.

- (4) The permittee shall continuously monitor and record the landfill gas flow routed to the third party treatment system that processes the collected gas for beneficial use and to each control device.
- (5) The permittee shall identify and record each instance that the enclosed combustors or utility flare were not in operation when the landfill gas was not being routed to the third party treatment system.
- (6) The permittee shall classify each load of waste received by waste code and record the weight received for each waste code daily, in tons.
- (7) The permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing and/or nondegradable wastes, excluded from collection as provided in 40 CFR 60.759(a)(3)(i), as well as any nonproductive areas excluded from collection as provided in 40 CFR 60.759(a)(3)(ii).



(8) Work Practice Plan

The permittee shall develop and implement a site-specific Work Practice Plan designed to minimize or eliminate fugitive dust from the landfill areas. This Work Practice Plan shall include, at a minimum, the following elements:

- a. An identification of each landfill area for which the plan applies.
- b. A determination of the frequency that each landfill area will be inspected to determine if additional control measures are needed.
- c. An explanation of how it is determined if additional control measures are required or not.
- d. The identification of the record keeping form that will be used to track the inspection and treatment. This form should include, at a minimum, the following elements:
  - i. landfill area inspected;
  - ii. date inspected;
  - iii. name of the employee doing the inspection;
  - iv. result of the inspection (needs treatment or not);
  - v. a description of why no treatment was needed;
  - vi. date treated;
  - vii. name of the employee treating the landfill area; and
  - viii. method used to treat the landfill area.
- e. A description of how and where the records shall be maintained. Records must be kept for at least five years.

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

(9) Work Practice Inspections

Except as otherwise provided in this section, the permittee shall perform inspections of each of the landfill areas at frequencies described in the Work Practice Plan. The purpose of the inspections is to determine the need for implementing control measures. The inspections shall be performed during representative, normal conditions. No inspection shall be necessary for a landfill 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 events have ended, except if the next required inspection is within one week.

(10) Work Practice Plan Record Keeping

The permittee shall maintain records of the following information:

- a. the records required to be collected under the Work Practice Plan; and
- b. the date and reason any element of the Work Practice Plan was not implemented.

(11) The PTI application for this/these emissions unit(s), F002, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
  - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
  - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting



calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or “worst case” toxic contaminant(s):

**For 5500 cfm combustors**

Toxic Contaminant: Hydrogen Chloride

TLV (mg/m<sup>3</sup>): 2,983,000

Maximum Hourly Emission Rate (lbs/hr): 1.33

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 0.004

MAGLC (ug/m<sup>3</sup>): 71.02

**For 2000 cfm combustor**

Toxic Contaminant: Hydrogen Chloride

TLV (mg/m<sup>3</sup>): 2,983,000

Maximum Hourly Emission Rate (lbs/hr): 0.48

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 61.76

MAGLC (ug/m<sup>3</sup>): 71.02

**For 3000 cfm open flare**

Toxic Contaminant: Hydrogen Chloride

TLV (mg/m<sup>3</sup>): 2,983,000

Maximum Hourly Emission Rate (lbs/hr): 0.73

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 0.02

MAGLC (ug/m<sup>3</sup>): 71.02

**For 3000 cfm enclosed combustor**

Toxic Contaminant: Hydrogen Chloride

TLV (mg/m<sup>3</sup>): 2,983,000

Maximum Hourly Emission Rate (lbs/hr): 0.73

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 0.02

MAGLC (ug/m<sup>3</sup>): 71.02

**For fugitive landfill emissions**

Toxic Contaminant: Vinyl Chloride

TLV (mg/m<sup>3</sup>): 2,556,000

Maximum Hourly Emission Rate (lbs/hr): 0.47

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 1.18

MAGLC (ug/m<sup>3</sup>): 60.86

The permittee, has demonstrated that emissions of mentioned above, from emissions unit(s) F002, are calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F).



- (12) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
  - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (13) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and



- d. the documentation of the initial evaluation of compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

- (14) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

- (1) The permittee shall submit semiannual reports and such other notifications and reports to Ohio EPA, Northeast District Office as required pursuant to 40 CFR Part 60, Subpart WWW, including the following sections:

60.757(a)	Initial and amended design capacity reporting
60.757(b)	NMOC emission rate reporting
60.757(c)	Collection and control system design plan reporting
60.757(d)	Closure report reporting
60.757(e)	Control equipment removal reporting
60.757(f)	Active collection system reporting
60.758(c)	Record keeping for control device parametric monitoring deviations

- (2) The permittee shall comply with the applicable reporting requirements under 40 CFR Part 63, Subpart AAAA, including the following sections:

63.1980(a)	Semiannual reports according to 40 CFR 60, subpart WWW
63.1980(b)	Reporting according to 40 CFR 63 and Table 1, NESHAP General Provisions, of this subpart including SSM plan requirements

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

- a. any exceedance of the rolling, 12-month summation of combined emissions from both 5,500 cfm enclosed combustors and the 3,000 cfm utility flare;
- b. for the 3,000 cfm enclosed combustor - all exceedances of the rolling, annual combustion rate limitation; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative combustion rate levels; and
- c. all work practice standards that were not implemented.



- (4) The permittee shall submit annual reports that include:
  - a. the actual organic-containing waste acceptance per waste code, in tons per year;
  - b. the actual non-organic containing waste acceptance per waste code, in tons per year;
  - c. the total waste acceptance, in tons per year; and
  - d. the total VOC emissions, and LandGEM inputs and output files, updated for the previous year's waste receipts.

Submitting the complete Fee Emission Report, including the LandGEM input and output files, in a timely manner will satisfy the annual report requirement in e)(4)c and e)(4)d above.

- (5) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminate Statute", ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:
  - a. the original model input;
  - b. the updated model input;
  - c. the reason for the change(s) to the input parameter(s);
  - d. a summary of the results of the updated modeling, including the input changes; and
  - e. a statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect.

f) Testing Requirements

- (1) The permittee shall comply with the applicable testing requirements required under 40 CFR Part 60, Subpart WWW, including the following sections:

60.754(d)	Flare Performance test methods
60.754(e)	Net heating value for performance test
60.755(d)	Surface monitoring instrumentation specifications and procedures

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



a. Emission Limitation:

The enclosed combustors (2000 cfm, 3000 cfm, and both 5500 cfm) shall be individually designed to meet 0.10 lb CO/mmBtu actual heat input.

Applicable Compliance Method:

Compliance shall be demonstrated by the manufacturer's emission factor for this emissions unit.

b. Emission Limitation:

The enclosed combustors (2000 cfm, 3000 cfm, and both 5500 cfm) shall be individually designed to meet 0.05 lbNO<sub>x</sub>/mmBtu actual heat input.

Applicable Compliance Method:

Compliance shall be demonstrated by the manufacturer's emission factor for this emissions unit.

c. Emission Limitation:

The 3000 cfm utility flare shall be designed to meet 0.37 lb CO/mmBtu actual heat input.

Applicable Compliance Method:

Compliance shall be demonstrated by the manufacturer's emission factor for this emissions unit.

d. Emission Limitation:

The 3000 cfm utility flare shall be designed to meet 0.068 lbNO<sub>x</sub>/mmBtu actual heat input.

Applicable Compliance Method:

Compliance shall be demonstrated by the manufacturer's emission factor for this emissions unit.

e. Emission Limitation:

SO<sub>2</sub> emissions, from each 5500 cfm enclosed combustor, shall not exceed 1.01 tons per month, averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = (\text{Summation } E_i) / 12$$

"i" goes from 1 through 12



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where:

$E_R$  = tons per month, averaged over a 12-month rolling period; and  
Summation  $E_i$  = tons of emissions in the  $i^{th}$  month plus the monthly emissions from the previous 11 months.

$$E_i = [(F_i \times C \times 64 \times 1)/(R \times T \times 10^6)]/2000$$

where:

$E_i$  = emission rate in  $i^{th}$  month, ton/ $i^{th}$  month;  
 $F_i$  = flow rate of combustor, cf/ $i^{th}$  month;  
 $C$  = concentration of sulfur in LFG, ppmv, assumed to be 49.6;  
64 = molecular weight of  $SO_2$ , lb/lbmole;  
1 = pressure, atm;  
 $R$  = gas constant, 0.7302 atm ft<sup>3</sup>/lbmole<sup>o</sup>R;  
 $T$  = temperature of LFG, 520 degrees <sup>o</sup>R;  
 $10^6$  = conversion factor for ppmv; and  
2000 = conversion factor, lbs/ton.

f. Emission Limitation:

PM<sub>10</sub> emissions, from each 5500 enclosed combustor, shall not exceed 1.13 tons per month, averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = \text{Summation } (E_i)/12$$

"i" goes from 1 through 12

where:

$E_R$  = tons per month, averaged over a 12-month rolling period; and  
Summation ( $E_i$ ) = tons of emissions in the  $i^{th}$  month plus the monthly emissions from the previous 11 months.

$$E_i = EF \times F_i \times MF/2000$$

where:

$E_i$  = emission rate, tons/ $i^{th}$  month;  
EF = emission factor from AP-42, Section 2.4 MSW Landfills, 17 lb/10<sup>6</sup> ft<sup>3</sup> of CH<sub>4</sub>;  
 $F_i$  = flow rate of combustor, cf/ $i^{th}$  month;  
MF = methane fraction of LFG that is CH<sub>4</sub>, 0.55; and  
2000 = conversion factor, lbs/ton.



g. Emission Limitation:

Combined CO emissions, from both 5500 cfm enclosed combustors and 3000 cfm utility flare, shall not exceed 159 tons per year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = \text{Summation } (E_{Ti})$$

"i" goes from 1 through 12

where:

$E_R$  = tons per year as a rolling, 12-month summation; and  
 Summation ( $E_{Ti}$ ) = combined emissions in the  $i^{th}$  month plus the monthly emissions from the previous 11 months.

$$E_{Ti} = E_{5.5K1i} + E_{5.5K2i} + E_{3Ki}$$

where:

$E_{Ti}$  = combined CO emissions from 5500 cfm enclosed combustors and 3000 cfm utility flare, tons/ $i^{th}$  month;

$E_{5.5K1i}$  = emissions from the 5500 cfm enclosed combustor No. 1, tons/ $i^{th}$  month;

$E_{5.5K2i}$  = emissions from the 5500 cfm enclosed combustor No. 2, tons/ $i^{th}$  month;

and

$E_{3Ki}$  = emissions from the 3000 cfm utility flare, tons/ $i^{th}$  month.

$$E_{5.5K1i} = 0.10 \text{ lb/mmBtu} \times \text{HC} \times F_i / (10^6 \times 2000)$$

$$E_{5.5K2i} = 0.10 \text{ lb/mmBtu} \times \text{HC} \times F_i / (10^6 \times 2000)$$

$$E_{3Ki} = 0.37 \text{ lb/mmBtu} \times \text{HC} \times F_i / (10^6 \times 2000)$$

where:

HC = heat content of landfill gas (LFG), estimate 550 Btu/cf;

$F_i$  = flow of LFG to unit, cf/ $i^{th}$  month;

$10^6$  = conversion factor, Btu/mmBtu; and

2000 = conversion factor, pounds/ton.

h. Emission Limitation:

Combined  $\text{NO}_x$  emissions, from both 5500 cfm enclosed combustors and 3000 cfm utility flare, shall not exceed 79.5 tons per year as a rolling, 12-month summation.



Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$E_R = \text{Summation } (E_{Ti})$   
 "i" goes from 1 through 12

where:

$E_R$  = tons per year as a rolling, 12-month summation; and  
 Summation ( $E_{Ti}$ ) = combined emissions in the  $i^{th}$  month plus the monthly emissions from the previous 11 months.

$E_{Ti} = E_{5.5K1i} + E_{5.5K2i} + E_{3Ki}$

where:

$E_{Ti}$  = combined  $NO_x$  emissions from 5500 cfm enclosed combustors and 3000 cfm utility flare, tons/  $i^{th}$  month;

$E_{5.5K1i}$  = emissions from the 5500 cfm enclosed combustor No. 1, tons/ $i^{th}$  month;

$E_{5.5K2i}$  = emissions from the 5500 cfm enclosed combustor No. 2, tons/ $i^{th}$  month; and

$E_{3Ki}$  = emissions from the 3000 cfm utility flare, tons/ $i^{th}$  month.

$E_{5.5K1i} = 0.05 \text{ lb/mmBtu} \times \text{HC} \times F_i / (10^6 \times 2000)$

$E_{5.5K2i} = 0.05 \text{ lb/mmBtu} \times \text{HC} \times F_i / (10^6 \times 2000)$

$E_{3Ki} = 0.068 \text{ lb/mmBtu} \times \text{HC} \times F_i / (10^6 \times 2000)$

where:

HC = heat content of landfill gas (LFG), estimate 550 Btu/cf;

$F_i$  = flow of LFG to unit, cf/ $i^{th}$  month;

$10^6$  = conversion factor, Btu/mmBtu; and

2000 = conversion factor, pounds/ton.

i. Emission Limitation:

Combined  $PM_{10}$ , from both 5500 cfm enclosed combustors and 3000 cfm utility flare, shall not exceed 27.04 tons per year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$E_R = \text{Summation } (E_i)$   
 "i" goes from 1 through 12

where:

$E_R$  = tons per year as a rolling, 12-month summation; and



Summation ( $E_i$ ) = combined emissions in the  $i^{\text{th}}$  month plus the monthly emissions from the previous 11 months.

$$E_i = EF \times F_i \times 0.5/2000$$

where:

$E_i$  = combined emissions from both 5500 cfm enclosed combustors and 3000 cfm utility flare, tons/ $i^{\text{th}}$  month;

EF = emission factor from AP-42, Section 2.4 Municipal Solid Waste Landfills, Table 2.4-4, 17 lbs/ $10^6$ cf of methane;

$F_i$  = total LFG flow to both 5500 cfm enclosed combustors and 3000 cfm utility flare (combined), total cf LFG/ $i^{\text{th}}$  month;

0.5 = percent of methane in LFG; and

2000 = conversion factor, pounds/ton.

j. Emission Limitation:

Combined  $\text{SO}_2$  emissions, from both 5500 cfm enclosed combustors and 3000 cfm utility flare, shall not exceed 24.18 tons per year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = \text{Summation } (E_i)$$

"i" goes from 1 through 12

where:

$E_R$  = tons per year as a rolling, 12-month summation; and

Summation ( $E_i$ ) = combined emissions in the  $i^{\text{th}}$  month plus the monthly emissions from the previous 11 months.

$$E_i = (F_i \times C \times 64 \times 1) / (R \times T \times 2000 \times 10^6)$$

where:

$E_i$  = combined emissions from both 5500 cfm enclosed combustors and 3000 cfm utility flare, tons/ $i^{\text{th}}$  month;

$F_i$  = total LFG flow to both 5500 cfm enclosed combustors and 3000 cfm utility flare (combined), total cf LFG/ $i^{\text{th}}$  month;

C = concentration of sulfur in LFG, 49.6 ppmv;

64 = molecular weight of  $\text{SO}_2$ , lb/lbmole;

1 = pressure, atm;

R = gas constant, 0.7302 atm ft<sup>3</sup>/lbmole<sup>o</sup>R;

T = temperature of LFG, degrees <sup>o</sup>R;

$10^6$  = conversion factor for ppmv; and

2000 = conversion factor, pounds/ton.



k. Emission Limitation:

Combined HCl emissions, from both 5500 cfm enclosed combustors and 3000 cfm utility flare, shall not exceed 11.68 tons per year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = \text{Summation } (E_i)$$

“i” goes from 1 through 12

where:

$E_R$  = tons per year as a rolling, 12-month summation; and  
Summation ( $E_i$ ) = combined emissions in the  $i^{\text{th}}$  month plus the monthly emissions from the previous 11 months.

$$E_i = (F_i \times C \times 36.5 \times 1) / (R \times T \times 2000 \times 10^6)$$

where:

$E_i$  = combined emissions from both 5500 cfm enclosed combustors and 3000 cfm utility flare, tons/ $i^{\text{th}}$  month;  
 $F_i$  = total LFG flow to both 5500 cfm enclosed combustors and 3000 cfm utility flare (combined), total cf LFG/ $i^{\text{th}}$  month;  
 $C$  = concentration of chlorides in LFG, AP-42, Section 2.4 MSW Landfills, uses a default value of 42.0 ppmv;  
36.5 = molecular weight of HCl, lb/lbmole;  
1 = pressure, atm;  
 $R$  = gas constant, 0.7302 atm ft<sup>3</sup>/lbmole<sup>o</sup>R;  
 $T$  = temperature of LFG, degrees <sup>o</sup>R;  
10<sup>6</sup> = conversion factor for ppmv; and  
2000 = conversion factor, pounds/ton.

l. Emission Limitation:

CO emissions, from the 3000 cfm enclosed combustor, shall not exceed 31.8 tons per year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = \text{Summation } (E_i)$$

“i” goes from 1 through 12

where:



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$E_R$  = tons per year as a rolling, 12-month summation; and  
Summation ( $E_i$ ) = combined emissions in the  $i^{th}$  month plus the monthly emissions from the previous 11 months.

$$E_i = [(F_i \times ER \times 550) / 10^6 \times 2000]$$

where:

$E_i$  = Emissions from the 3000 cfm enclosed combustor; tons per month;  
 $F_i$  = LFG flow to 3000 cfm combustor; cf LFG/ $i^{th}$  month;  
ER = emissions rate of CO, lb/mmBtu from 3000 cfm enclosed combustor, manufacturer design 0.1;  
550 = heating value of LFG, assumed to be 550 Btu/cf;  
 $10^6$  = conversion factor for ppmv; and  
2000 = conversion factor, lbs/ton.

m. Emission Limitation:

NO<sub>x</sub> emissions, from the 3000 cfm enclosed combustor, shall not exceed 15.9 tons per year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$E_R$  = Summation ( $E_i$ )  
"i" goes from 1 through 12

where:

$E_R$  = tons per year as a rolling, 12-month summation; and  
Summation ( $E_i$ ) = combined emissions in the  $i^{th}$  month plus the monthly emissions from the previous 11 months.

$$E_i = [(F_i \times ER \times 550) / 10^6 \times 2000]$$

where:

$E_i$  = Emissions from the 3000 cfm enclosed combustor; tons per month;  
 $F_i$  = LFG flow to 3000 cfm combustor; cf LFG/ $i^{th}$  month;  
ER = emissions rate of NO<sub>x</sub>, lb/mmBtu from 3000 cfm enclosed combustor, manufacturer design 0.05;  
550 = heating value of LFG, assumed to be 550 Btu/cf;  
 $10^6$  = conversion factor for ppmv; and  
2000 = conversion factor, lbs/ton.

n. Emission Limitation:

SO<sub>2</sub> emissions, from the 3000 cfm enclosed combustor, shall not exceed 4.84 tons per year as a rolling, 12-month summation.



Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$E_R = \text{Summation } (E_i)$   
"i" goes from 1 through 12

where:

$E_R$  = tons per year as a rolling, 12-month summation; and  
Summation ( $E_i$ ) = combined emissions in the  $i^{th}$  month plus the monthly emissions from the previous 11 months.

$E_i = [(F_i \times C \times 64 \times 1)/(R \times T \times 10^6)]/2000$

where:

$E_i$  = emissions from the 3000 cfm enclosed combustor; tons per month;  
 $F_i$  = LFG flow to 3000 cfm combustor; cf LFG/ $i^{th}$  month;  
C = concentration of sulfur in LFG, 49.6 ppmv;  
64 = molecular weight of  $SO_2$ , lb/lbmole;  
1 = pressure, atm;  
R = gas constant, 0.7302 atm ft<sup>3</sup>/lbmole<sup>o</sup>R;  
T = temperature of LFG, degrees <sup>o</sup>R;  
 $10^6$  = conversion factor for ppmv; and  
2000 = conversion factor, lbs/ton.

o. Emission Limitation:

HCl emissions, from the 3000 cfm enclosed combustor, shall not exceed 2.33 tons per year, as a rolling 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$E_R = \text{Summation } (E_i)$   
"i" goes from 1 through 12

where:

$E_R$  = tons per year as a rolling, 12-month summation; and  
Summation ( $E_i$ ) = combined emissions in the  $i^{th}$  month plus the monthly emissions from the previous 11 months.

$E_i = [(F_i \times C \times 36.5 \times 1)/(R \times T \times 10^6)]/2000$

where:



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$E_i$  = emissions from the 3000 cfm enclosed combustor; tons per month;  
 $F_i$  = LFG flow to 3000 cfm enclosed combustor; cf LFG/ $i^{th}$  month;  
 $C$  = concentration of chlorides in LFG, 42 ppmv;  
36.5 = molecular weight of HCl, lb/lbmole;  
1 = pressure, atm;  
 $R$  = gas constant, 0.7302 atm ft<sup>3</sup>/lbmole<sup>o</sup>R;  
 $T$  = temperature of LFG, degrees <sup>o</sup>R;  
 $10^6$  = conversion factor for ppmv; and  
2000 = conversion factor, lbs/ton.

p. Emission Limitation:

PM<sub>10</sub> emissions, from the 3000 cfm enclosed combustor, shall not exceed 5.41 tons per year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$E_R$  = Summation ( $E_i$ )  
"i" goes from 1 through 12

where:

$E_R$  = tons per year as a rolling, 12-month summation; and  
Summation ( $E_i$ ) = combined emissions in the  $i^{th}$  month plus the monthly emissions from the previous 11 months.

$E_i = EF \times F_i \times 0.55 / 2000$

where:

$E_i$  = emissions from the 3000 cfm enclosed combustor, tons/ $i^{th}$  month;  
 $EF$  = emission factor from AP-42, Section 2.4 Municipal Solid Waste Landfills, Table 2.4-4, 17 lbs/10<sup>6</sup>cf of methane;  
 $F_i$  = total LFG flow to 3000 cfm enclosed combustor, cf LFG/ $i^{th}$  month;  
0.55 = percent of methane in LFG; and  
2000 = conversion factor, pounds/ton.

q. Emission Limitation:

NMOC emissions, from the 3000 enclosed combustor, shall not exceed 1.56 tons per year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$E_R = (\text{Summation } E_i) / 12$   
"i" goes from 1 through 12



where:

$E_R$  = tons per month, averaged over a 12-month rolling period; and  
 Summation  $E_i$  = tons of emissions in the  $i^{th}$  month plus the monthly emissions from the previous 11 months.

$$E_i = [(F_i \times C \times 86 \times 1)/(R \times T \times 10^6)] \times (1-0.98)/2000$$

where:

$E_i$  = emission rate in  $i^{th}$  month, ton/ $i^{th}$  month;  
 $F_i$  = flow rate of combustor, cf/ $i^{th}$  month;  
 $C$  = concentration of sulfur in LFG, ppmv, assumed to be 595;  
 86 = molecular weight of NMOC, lb/lbmole;  
 1 = pressure, atm;  
 $R$  = gas constant, 0.7302 atm ft<sup>3</sup>/lbmole<sup>o</sup>R;  
 $T$  = temperature of LFG, 520 degrees <sup>o</sup>R;  
 10<sup>6</sup> = conversion factor for ppmv;  
 0.98 = destruction efficiency required by control device of NMOC, 98%; and  
 2000 = conversion factor, lbs/ton.

r. Emission Limitation:

SO<sub>2</sub> emissions, from the 2000 cfm enclosed combustor, shall not exceed 0.37 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = \text{Summation } (E_i)/12$$

"i" goes from 1 through 12

where:

$E_R$  = ton per month averaged over a 12-month rolling period; and  
 Summation ( $E_i$ ) = combined emissions in the  $i^{th}$  month plus the monthly emissions from the previous 11 months.

$$E_i = [(F_i \times C \times 64 \times 1)/(R \times T \times 10^6)]/2000$$

where:

$E_i$  = emissions from the 2000 cfm enclosed combustor;  
 $F_i$  = LFG flow to 2000 cfm combustor; cf LFG/ $i^{th}$  month;  
 $C$  = concentration of sulfur in LFG, 49.6 ppmv;  
 64 = molecular weight of SO<sub>2</sub>, lb/lbmole;  
 1 = pressure, atm;  
 $R$  = gas constant, 0.7302 atm ft<sup>3</sup>/lbmole<sup>o</sup>R;  
 $T$  = temperature of LFG, degrees <sup>o</sup>R;



10<sup>6</sup> = conversion factor for ppmv; and  
2000 = conversion factor, pounds/ton.

s. Emission Limitation:

HCl emissions, from the 2000 cfm enclosed combustor, shall not exceed 0.18 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = \text{Summation } (E_i)/12$$

“i” goes from 1 through 12

where:

E<sub>R</sub> = ton per month averaged over a 12-month rolling period; and  
Summation (E<sub>i</sub>) = combined emissions in the i<sup>th</sup> month plus the monthly emissions from the previous 11 months.

$$E_i = [(F_i \times C \times 36.5 \times 1)/(R \times T \times 10^6)]/2000$$

where:

E<sub>i</sub> = emissions from the 2000 cfm enclosed combustor;  
F<sub>i</sub> = LFG flow to 2000 cfm combustor; cf LFG/i<sup>th</sup> month;  
C = concentration of chlorides in LFG, 42 ppmv;  
36.5 = molecular weight of HCl, lb/lbmole;  
1 = pressure, atm;  
R = gas constant, 0.7302 atm ft<sup>3</sup>/lbmole<sup>o</sup>R;  
T = temperature of LFG, degrees <sup>o</sup>R;  
10<sup>6</sup> = conversion factor for ppmv; and  
2000 = conversion factor, pounds/ton.

t. Emission Limitation:

PM<sub>10</sub> emissions, from the 2000 cfm enclosed combustor, shall not exceed 0.41 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = \text{Summation } (E_i)/12$$

“i” goes from 1 through 12

where:

E<sub>R</sub> = ton per month averaged over a 12-month rolling period; and



Summation ( $E_i$ ) = combined emissions in the  $i^{\text{th}}$  month plus the monthly emissions from the previous 11 months.

$$E_i = EF \times F_i \times 0.55/2000$$

where:

$E_i$  = emissions from the 2000 cfm enclosed combustor, tons/ $i^{\text{th}}$  month;  
 EF = emission factor from AP-42, Section 2.4 Municipal Solid Waste Landfills, Table 2.4-4, 17 lbs/10<sup>6</sup>cf of methane;  
 $F_i$  = total LFG flow to 2000 cfm enclosed combustor, cf LFG/ $i^{\text{th}}$  month;  
 0.55 = percent of methane in LFG; and  
 2000 = conversion factor, pounds/ton.

u. Emission Limitation:

NMOC emissions, from the 2000 enclosed combustor, shall not exceed 0.12 ton per month, averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = (\text{Summation } E_i)/12$$

"i" goes from 1 through 12

where:

$E_R$  = tons per month, averaged over a 12-month rolling period; and  
 Summation  $E_i$  = tons of emissions in the  $i^{\text{th}}$  month plus the monthly emissions from the previous 11 months.

$$E_i = [(F_i \times C \times 86 \times 1)/(R \times T \times 10^6)] \times (1-0.98)/2000$$

where:

$E_i$  = emission rate in  $i^{\text{th}}$  month, ton/ $i^{\text{th}}$  month;  
 $F_i$  = flow rate of combustor, cf/ $i^{\text{th}}$  month;  
 C = concentration of sulfur in LFG, ppmv, assumed to be 595;  
 86 = molecular weight of NMOC, lb/lbmole;  
 1 = pressure, atm;  
 R = gas constant, 0.7302 atm ft<sup>3</sup>/lbmole<sup>o</sup>R;  
 T = temperature of LFG, 520 degrees <sup>o</sup>R;  
 10<sup>6</sup> = conversion factor for ppmv;  
 0.98 = destruction efficiency required by control device of NMOC, 98%; and  
 2000 = conversion factor, lbs/ton.

v. Emission Limitation:

HCl emissions, from each 5500 cfm enclosed combustor, shall not exceed 0.49 ton per month averaged over a 12-month rolling period.



Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = \text{Summation } (E_i)/12$$

"i" goes from 1 through 12

where:

$E_R$  = ton per month averaged over a 12-month rolling period; and  
Summation ( $E_i$ )= combined emissions in the  $i^{\text{th}}$  month plus the monthly emissions from the previous 11 months.

$$E_i = [(F_i \times C \times 36.5 \times 1)/(R \times T \times 10^6)]/2000$$

where:

$E_i$  = emissions from each 5500 cfm enclosed combustor;  
 $F_i$  = LFG flow to each 5500 cfm enclosed combustor; cf LFG/ $i^{\text{th}}$  month;  
 $C$  = concentration of chlorides in LFG, 42 ppmv;  
36.5 = molecular weight of HCl, lb/lbmole;  
1 = pressure, atm;  
 $R$  = gas constant, 0.7302 atm ft<sup>3</sup>/lbmole<sup>o</sup>R;  
 $T$  = temperature of LFG, degrees <sup>o</sup>R;  
 $10^6$  = conversion factor for ppmv; and  
2000 = conversion factor, pounds/ton.

w. Emission Limitation:

NMOC emissions, from each 5500 enclosed combustor, shall not exceed 0.33 ton per month, averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = (\text{Summation } E_i)/12$$

"i" goes from 1 through 12

where:

$E_R$  = tons per month, averaged over a 12-month rolling period; and  
Summation  $E_i$  = tons of emissions in the  $i^{\text{th}}$  month plus the monthly emissions from the previous 11 months.

$$E_i = [(F_i \times C \times 86 \times 1)/(R \times T \times 10^6)] \times (1-0.98)/2000$$

where:

$E_i$  = emission rate in  $i^{\text{th}}$  month, ton/ $i^{\text{th}}$  month;  
 $F_i$  = flow rate of combustor, cf/ $i^{\text{th}}$  month;



C = concentration of sulfur in LFG, ppmv, assumed to be 595;  
86 = molecular weight of NMOC, lb/lbmole;  
1 = pressure, atm;  
R = gas constant, 0.7302 atm ft<sup>3</sup>/lbmole<sup>o</sup>R;  
T = temperature of LFG, 520 degrees <sup>o</sup>R;  
10<sup>6</sup> = conversion factor for ppmv;  
0.98 = destruction efficiency required by control device of NMOC, 98%; and  
2000 = conversion factor, lbs/ton.

x. Emission Limitation:

VOC emissions, from each 5500 enclosed combustor, shall not exceed 0.13 ton per month, averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = (\text{Summation } E_i) / 12$$

"i" goes from 1 through 12

where:

E<sub>R</sub> = tons per month, averaged over a 12-month rolling period; and  
Summation E<sub>i</sub> = tons of emissions in the i<sup>th</sup> month plus the monthly emissions from the previous 11 months.

$$E_i = [(F_i \times C \times 86 \times 1) / (R \times T \times 10^6)] \times (1 - 0.98) \times 0.39 / 2000$$

where:

E<sub>i</sub> = emission rate in i<sup>th</sup> month, ton/i<sup>th</sup> month;  
F<sub>i</sub> = flow rate of combustor, cf/i<sup>th</sup> month;  
C = concentration of sulfur in LFG, ppmv, assumed to be 595;  
86 = molecular weight of NMOC, lb/lbmole;  
1 = pressure, atm;  
R = gas constant, 0.7302 atm ft<sup>3</sup>/lbmole<sup>o</sup>R;  
T = temperature of LFG, 520 degrees <sup>o</sup>R;  
10<sup>6</sup> = conversion factor for ppmv;  
0.98 = destruction efficiency required by control device of NMOC, 98%;  
0.39 = percent of NMOC that is VOC, assumed 39%; and  
2000 = conversion factor, lbs/ton.

y. Emission Limitation:

SO<sub>2</sub> emissions, from the 3000 cfm utility flare, shall not exceed 0.55 ton per month averaged over a 12-month rolling period.



Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = \text{Summation } (E_i)/12$$

"i" goes from 1 through 12

where:

$E_R$  = ton per month averaged over a 12-month rolling period; and  
Summation ( $E_i$ ) = combined emissions in the  $i^{\text{th}}$  month plus the monthly emissions from the previous 11 months.

$$E_i = [(F_i \times C \times 64 \times 1)/(R \times T \times 10^6)]/2000$$

where:

$E_i$  = Emissions from the 3000 cfm utility flare;  
 $F_i$  = LFG flow to 3000 cfm utility flare; cf LFG/ $i^{\text{th}}$  month;  
 $C$  = concentration of sulfur in LFG, 49.6 ppmv;  
64 = molecular weight of  $\text{SO}_2$ , lb/lbmole;  
1 = pressure, atm;  
 $R$  = gas constant, 0.7302 atm ft<sup>3</sup>/lbmole<sup>o</sup>R;  
 $T$  = temperature of LFG, degrees <sup>o</sup>R;  
 $10^6$  = conversion factor for ppmv; and  
2000 = conversion factor, pounds/ton.

z. Emission Limitation:

PM<sub>10</sub> emissions, from the 3000 cfm utility flare, shall not exceed 0.61 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = \text{Summation } (E_i)/12$$

"i" goes from 1 through 12

where:

$E_R$  = ton per month averaged over a 12-month rolling period; and  
Summation ( $E_i$ ) = combined emissions in the  $i^{\text{th}}$  month plus the monthly emissions from the previous 11 months.

$$E_i = EF \times F_i \times 0.55/2000$$

where:

$E_i$  = combined emissions from the 3000 cfm utility flare, tons/ $i^{\text{th}}$  month;



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EF = emission factor from AP-42, Section 2.4 Municipal Solid Waste Landfills, Table 2.4-4, 17 lbs/10<sup>6</sup>cf of methane;  
F<sub>i</sub> = total LFG flow to 3000 cfm utility flare, cf LFG/i<sup>th</sup> month;  
0.55 = percent of methane in LFG; and  
2000 = conversion factor, pounds/ton.

aa. Emission Limitation:

HCl emissions, from the 3000 cfm utility flare, shall not exceed 0.27 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = \text{Summation } (E_i)/12$$

"i" goes from 1 through 12

where:

E<sub>R</sub> = ton per month averaged over a 12-month rolling period; and  
Summation (E<sub>i</sub>) = combined emissions in the i<sup>th</sup> month plus the monthly emissions from the previous 11 months.

$$E_i = [(F_i \times C \times 36.5 \times 1)/(R \times T \times 10^6)]/2000$$

where:

E<sub>i</sub> = emissions from the 3000 cfm utility flare;  
F<sub>i</sub> = LFG flow to the 3000 cfm utility flare; cf LFG/i<sup>th</sup> month;  
C = concentration of chlorides in LFG, 42 ppmv;  
36.5 = molecular weight of HCl, lb/lbmole;  
1 = pressure, atm;  
R = gas constant, 0.7302 atm ft<sup>3</sup>/lbmole<sup>o</sup>R;  
T = temperature of LFG, degrees <sup>o</sup>R;  
10<sup>6</sup> = conversion factor for ppmv; and  
2000 = conversion factor, pounds/ton.

bb. Emission Limitation:

NMOC emissions, from the 3000 cfm utility flare, shall not exceed 0.18 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$$E_R = (\text{Summation } E_i)/12$$

"i" goes from 1 through 12



where:

$E_R$  = tons per month, averaged over a 12-month rolling period; and  
Summation  $E_i$  = tons of emissions in the  $i^{\text{th}}$  month plus the monthly emissions from the previous 11 months.

$$E_i = [(F_i \times C \times 86 \times 1)/(R \times T \times 10^6)] \times (1-0.98)/2000$$

where:

$E_i$  = emission rate in  $i^{\text{th}}$  month, ton/ $i^{\text{th}}$  month;  
 $F_i$  = flow rate of combustor, cf/ $i^{\text{th}}$  month;  
 $C$  = concentration of sulfur in LFG, ppmv, assumed to be 595;  
86 = molecular weight of NMOC, lb/lbmole;  
1 = pressure, atm;  
 $R$  = gas constant, 0.7302 atm ft<sup>3</sup>/lbmole<sup>o</sup>R;  
 $T$  = temperature of LFG, 520 degrees <sup>o</sup>R;  
10<sup>6</sup> = conversion factor for ppmv;  
0.98 = destruction efficiency required by control device of NMOC, 98%; and  
2000 = conversion factor, lbs/ton.

g) Miscellaneous Requirements

- (1) None.