



Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

2/11/2011

Connie Dall
Browning-Ferris Industries, Bigfoot Run Landfill
5092 Aber Road
Williamsburg, OH 45176

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1483110286
Permit Number: P0106985
Permit Type: Renewal
County: Warren

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
Yes	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

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

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

If you have any questions, please contact Hamilton County Dept. of Environmental Services at (513)946-7777 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPC Web page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: HCDOES



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Browning-Ferris Industries, Bigfoot Run Landfill**

Facility ID:	1483110286
Permit Number:	P0106985
Permit Type:	Renewal
Issued:	2/11/2011
Effective:	2/11/2011
Expiration:	2/11/2021



Division of Air Pollution Control
Permit-to-Install and Operate
for
Browning-Ferris Industries, Bigfoot Run Landfill

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Authorization

Facility ID: 1483110286
Application Number(s): A0040433
Permit Number: P0106985
Permit Description: Administrative Modification to PTI 14-03445 being completed as a renewal, pursuant to OAC rule 3745-77-08(H)(1)(b), to establish that the facility is now exempt from the requirement to operate with a Title V permit pursuant to OAC rule 3745-77-02(C); Closed Municipal Solid Waste landfill with Landfill Gas Collection and Control system
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 2/11/2011
Effective Date: 2/11/2011
Expiration Date: 2/11/2021
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Browning-Ferris Industries, Bigfoot Run Landfill
2420 E Mason-Morrow-Millgrove Rd
Morrow, OH 45152

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

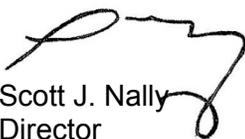
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

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

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (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 described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Scott J. Nally
Director



Authorization (continued)

Permit Number: P0106985
Permit Description: Administrative Modification to PTI 14-03445 being completed as a renewal, pursuant to OAC rule 3745-77-08(H)(1)(b), to establish that the facility is now exempt from the requirement to operate with a Title V permit pursuant to OAC rule 3745-77-02(C); Closed Municipal Solid Waste landfill with Landfill Gas Collection and Control system

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

Emissions Unit ID:	F002
Company Equipment ID:	MSW Landfill
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a



renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Hamilton County Dept. of Environmental Services in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means 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.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting¹ a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

¹ Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

B. Facility-Wide Terms and Conditions

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.

C. Emissions Unit Terms and Conditions



1. F002, MSW Landfill

Operations, Property and/or Equipment Description:

Closed Municipal Solid Waste and Asbestos Containing Waste Materials Landfill (Bigfoot Run I) with a landfill gas collection and control system (John Zink enclosed flare)

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. d)(7).

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>Emissions of carbon monoxide (CO) shall not exceed 11.27 pounds per hour and 49.4 tons per year (TPY).</p> <p>Emissions of nitrogen oxides (NOx) shall not exceed 2.25 pounds per hour and 9.9 TPY.</p> <p>Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.62 pound per hour and 2.7 TPY.</p> <p>Emissions of sulfur dioxide (SO2) shall not exceed 0.57 pound per hour and 2.5 TPY.</p> <p>Emissions of volatile organic compounds (VOC) shall not exceed 0.41 pound per</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		hour and 1.8 TPY. Emissions of non-methane organic compounds (NMOC) shall not exceed 1.8 TPY. See b)(2)a., b)(2)b., b)(2)c., b)(2)d., b)(2)e. The requirements of this rule also include compliance with OAC rules 3745-17-07(A)(1) and 3745-20-07.
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
c.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-19	See b)(2)f.
e.	OAC rule 3745-20-07	If this landfill is permanently closed, then the permittee shall comply with all of the applicable provisions of OAC rule 3745-20-07. See b)(2)g. and b)(2)h.
f.	40 CFR Part 61, Subpart M (40 CFR 61.140-157) [Inactive waste disposal site.]	The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-20-07.
g.	ORC 3704.03(L)	See b)(2)i.
h.	OAC rule 3745-76	See g)(1).

(2) Additional Terms and Conditions

a. Landfill Gas Collection System

Design, construction, and siting of the gas extraction wells and gas collection system shall be in accordance with the Browning-Ferris Industries, Bigfoot Run Landfill Permit to Install (PTI) application submitted March 28, 1994, and the standard industry methods and practices currently in use. In addition, the landfill gas collection system shall:

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

- ii. Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 2 years or more when the adjacent gas monitoring probes indicate offsite gas migration; and
 - iii. Collect gas at a sufficient extraction rate.
- b. Landfill Gas Control System

All landfill gas collected shall be routed to a control system (enclosed smokeless flare) designed and operated, within the parameters demonstrated during the most recent performance test which demonstrated compliance, to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to 20 ppm by volume or less (as hexane), on a dry basis, at 3 percent oxygen.
- c. The equipment that constitutes the landfill gas collection and control system shall be properly maintained and kept in good operating condition at all times.
- d. In the event the collection or control system is inoperable, including a no flame condition, the gas collection system shall automatically shut down the flow of landfill gas.
- e. The skin temperature of the flare shroud within four feet of all the source test ports shall not exceed 250 degrees Fahrenheit. If a heat shield is required to meet the requirement, its design shall be approved by the appropriate Ohio EPA District Office or local air agency prior to its construction. The heat shield, if required to meet the temperature requirement, shall be in place whenever a source test is conducted.
- f. There shall be no open burning, in violation of OAC Chapter 3745-19, at this facility.
- g. The permittee shall comply with one of the following requirements for this inactive waste disposal site containing asbestos:
 - i. Discharge no visible emissions from the inactive waste disposal site; or
 - ii. Cover the asbestos-containing material with at least six inches of compacted nonasbestos-containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material; or
 - iii. Cover the asbestos-containing waste material with at least two feet of compacted nonasbestos-containing material, and maintain the cover to prevent exposure of the asbestos-containing waste material.
- h. Unless a natural barrier adequately deters access by the general public to the inactive waste disposal site, the permittee shall install and maintain warning signs and fencing as follows, or comply with OAC rule 3745-20-07(A)(2) or (A)(3):

i. Display warning signs at all entrances and at intervals of three hundred feet or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited. The warning signs must:

(a) Be posted in such a manner and locating that a person can easily read the legend; and

(b) Conform to the requirements for a twenty-four inch by fourteen-inch upright format warning sign and display the following legend in the lower panel with letter sizes of at least one inch sans serif. Spacing between any two lines must be at least equal to the height of the upper of the two lines:

ASBESTOS WASTE DISPOSAL SITE

DO NO CREATE DUST

BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH

ii. Fence the perimeter of the site in a manner adequate to deter access by the general public.

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

j. The short-term CO, NO_x, PE/PM₁₀, SO₂, and VOC emission limitations were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these short-term emission limitations.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable NMOC emission limitation contained in this permit, the acceptable average combustion temperature within the enclosed flare, for any 3-hour block of time when the landfill gas collection system and enclosed flare are in operation and when the emissions unit controlled by the enclosed flare is in operation, shall not be less than 1400 degrees Fahrenheit, or more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance, whichever is less. Until compliance testing has been conducted, the enclosed flare shall be operated

and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual.

- (2) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the enclosed flare when the landfill gas collection system and enclosed flare are in operation and when the emissions unit is in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The acceptable temperature setting shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate temperature range is established to demonstrate compliance. Following compliance testing, the permittee shall collect and record the following information each day the emissions unit is in operation:
- a. all 3-hour blocks of time, when the landfill gas collection system and enclosed flare are in operation and when the emissions unit controlled by the enclosed flare was in operation, during which the average combustion temperature within the enclosed flare was below 1400 degrees Fahrenheit, or more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance, whichever is less; and
 - b. a log or record of the operating time for the capture (collection) system, enclosed flare, monitoring equipment, and the associated emissions unit.

These records shall be maintained at the facility for a period of three years.

- (3) Whenever the monitored average combustion temperature within the enclosed flare deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
- a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;
 - c. the date the investigation was conducted;
 - d. the name(s) of the personnel who conducted the investigation; and
 - e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that

determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the temperature readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (4) In order to monitor compliance with the annual emission limitations, the permittee shall maintain monthly records of the total emissions, in tons, for CO, NO_x, PE/PM₁₀, SO₂, VOC, and NMOC, according to the emission calculation methods outlined in Application A0040433 for PTIO P0106985 and stated in f) below.
- (5) The permittee shall operate and maintain a temperature monitor and recorder which measures and records the skin temperature of the flare shroud if emissions testing is being conducted for the flare. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
- (6) The permittee shall maintain records of the location, depth and area, and quantity, in cubic yards, of all asbestos-containing waste materials within the disposal site on a map or diagram of the disposal area.
- (7) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified PTIO prior to making a "modification" as defined by OAC rule

3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year, or calculated emissions of any air toxic contaminant, based on actual flare operations, that exceed 1.0 ton per year may require the permittee to apply for and obtain a new PTIO.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the enclosed flare during the 12-month reporting period for this/these emissions unit(s):
 - a. Each period of time (start time and date, and end time and date) when the average combustion temperature within the enclosed flare was outside of the range specified by the manufacturer and/or outside of the acceptable range following any required compliance demonstration;
 - b. Any period of time (start time and date, and end time and date) when the emissions unit was in operation and the emissions were not vented to the enclosed flare;
 - c. Each incident of deviation described in a., b., or c. where a prompt investigation was not conducted;
 - d. Each incident of deviation described in a., b., or c. where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the enclosed flare into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - e. Each incident of deviation described in a., b., or c. where proper records were not maintained for the investigation and/or the corrective action(s).
- (3) The permittee shall notify Hamilton County Department of Environmental Services in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. The following information shall be included in the notice:
 - a. Scheduled starting and completion dates;
 - b. Reason(s) for disturbing the waste;

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitations:

Emissions of carbon monoxide (CO) shall not exceed 11.27 pounds per hour;

Emissions of nitrogen oxides (NOx) shall not exceed 2.25 pounds per hour;

Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.62 pound per hour; and

Emissions of sulfur dioxide (SO2) shall not exceed 0.57 pound per hour.

Applicable Compliance Methods:

If required, compliance with the allowable short-term mass emission limitations shall be demonstrated using the following test method(s):

For CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A

For NOx, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A

For PE/PM10, Methods 1-5 of 40 CFR Part 60, Appendix A

For SO2, Methods 1-4 and 6 of 40 CFR Part 60, Appendix A

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

If required, the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

The short-term emission limitations were established based on information in Application A0040433 for PTIO P0106985 to reflect the potential to emit for this emissions unit. The controlled potential to emit scenario assumes the LFG collection and control system operates 100% of the time. The potentials to emit of CO, NOx, PE/PM10, and SO2 from this emissions unit were established based on the following calculations:

$0.3 \text{ pound of CO/1EE6 Btu of CH}_4 \times 0.5 \text{ Btu of CH}_4/\text{Btu of LFG} \times 1012 \text{ Btu of LFG/cubic feet of landfill gas (LFG)} \times 1237.6 \text{ cubic feet of LFG/minute} \times 60 \text{ minutes/hour} = 11.27 \text{ pounds CO per hour.}$

0.06 pound of NOx/1EE6 Btu of CH₄ x 0.5 Btu of CH₄/Btu of LFG x 1012 Btu of LFG/ cubic feet of LFG x 1237.6 cubic feet of LFG/min x 60 min/hr = 2.25 pounds NOx per hour.

[0.001 lb/hr of PE/PM₁₀] minute/ cubic feet of CH₄ x 1237.6 cubic feet of LFG/min x 0.5 Btu of CH₄/Btu of LFG = 0.62 pound of PE/PM₁₀ per hour.

[46.9 ppm of sulfur compounds, assumed as SO₂ x 64.1 grams/mole of SO₂/1EE6] x 1237.6 cubic feet of LFG/minute x 60 minutes/hour x 1 pound/453.6 grams x mole/24.45 liter (L) x 28.32 L/ cubic feet of LFG = 0.57 pound of SO₂ per hour.

b. Emission Limitations:

Emissions of carbon monoxide (CO) shall not exceed 49.4 tons per year (TPY).

Emissions of nitrogen oxides (NO_x) shall not exceed 9.9 TPY.

Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM₁₀) shall not exceed 2.7 TPY.

Emissions of sulfur dioxide (SO₂) shall not exceed 2.5 TPY.

Emissions of volatile organic compounds (VOC) shall not exceed 1.8 TPY.

Emissions of non-methane organic compounds (NMOC) shall not exceed 1.8 TPY.

Applicable Compliance Methods:

Compliance with the annual emission limitations shall be demonstrated by the recordkeeping requirements in d)(4).

The annual emission limitations were established based on information in Application A0040433 for PTIO P0106985 to reflect the potential to emit for this emissions unit. For CO, NO_x, PE/PM₁₀, and SO₂, the controlled potential to emit scenario assumes the LFG collection and control system operates 100% of the time. For VOC and NMOC the uncontrolled potential to emit scenario assumes the LFG collection and control system does not operate. The potentials to emit of CO, NO_x, PE/PM₁₀, SO₂, VOC, and NMOC from this emissions unit were established based on the following calculations:

11.27 pounds of CO/hr x 8760 hrs/year x 1 Ton/2000 lbs = 49.4 TPY or CO.

2.25 pounds of NO_x/hr x 8760 hrs/year x 1 Ton/2000 lbs = 9.9 TPY of NO_x.

0.62 pound of PE/PM₁₀/hr x 8760 hrs/year x 1 Ton/2000 lbs = 2.7 TPY of PE/PM₁₀.

0.57 pound of SO₂/hr x 8760 hrs/year x 1 Ton/2000 lbs = 2.5 TPY of SO₂.

0.41 pound of VOC/hr x 8760 hrs/year x 1 Ton/2000 lbs = 1.8 TPY of VOC.

$[26.3 \text{ ppm of organic compounds, assumed as NMOC (hexane)} \times 86.18 \text{ grams/mole of NMOC (hexane)/1EE6}] \times 1189 \text{ cubic feet of LFG/minute} \times 60 \text{ minutes/hour} \times 1 \text{ pound/453.6 grams} \times \text{mole/24.45 liter} \times 28.32 \text{ liters/cubic feet of LFG} \times 8760 \text{ hrs/yr} \times 1 \text{ Ton/2000 lbs} = 1.8 \text{ TPY of NMOC.}$

c. Emission Limitation:

Reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to 20 ppm by volume or less (as hexane), on a dry basis, at 3 percent oxygen

Emissions of volatile organic compounds (VOC) shall not exceed 0.41 pound per hour.

Applicable Compliance Method:

If required, compliance with the allowable short-term mass emission limitations shall be demonstrated using the following test method(s):

- i. For NMOC and VOC, Methods 1-4 and 25 or 18 of 40 CFR Part 60, Appendix A
- ii. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- iii. If required, the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

The short-term emission limitation was established based on information in Application A0040433 for PTIO P0106985 to reflect the uncontrolled potential to emit for this emissions unit. The uncontrolled potential to emit scenario assumes the LFG collection and control system does not operate. The potential to emit VOC from this emissions unit was established based on the following calculation:

$[26.3 \text{ ppm of organic compounds, assumed as NMOC (hexane)} \times 86.18 \text{ grams/mole of NMOC (hexane)/1EE6}] \times 1189 \text{ cubic feet of LFG/min} \times 60 \text{ minute/hr} \times 1 \text{ pound/453.6 grams} \times \text{mole/24.45 liters} \times 28.32 \text{ liters/cubic feet of LFG} = 0.41 \text{ pound of VOC per hour.}$

The short-term NMOC emission limit equals the BAT requirement to reduce the outlet concentration of NMOC from Permit to Install (PTI) 14-03445, January 19, 1995.

The permittee last demonstrated compliance with the NMOC outlet concentration reduction requirement, in accordance with the above requirements, on October 3, 2006.

d. Emission Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance with the stack visible particulate emission limitation shall be determined through visible emission observations performed in accordance with U.S. EPA Method 9.

g) Miscellaneous Requirements

- (1) The control requirements of OAC rule 3745-76 no longer apply to this facility pursuant to OAC rule 3745-76-07(B)(2)(e).