



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

8/10/2015

Certified Mail

Mr. Allen Bradburn
 BFI of Ohio / Willowcreek Landfill
 5092 Aber Road
 Williamsburg, OH 45150

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1667010007
 Permit Number: P0118262
 Permit Type: Renewal
 County: Portage

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) 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. In this letter you will find the information on the following topics:

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

How to appeal this permit

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

Environmental Review Appeals Commission
 77 South High Street, 17th Floor
 Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

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

If you have any questions, please contact Akron Regional Air Quality Management District at (330)375-2480 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



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

Cc: ARAQMD



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
BFI of Ohio / Willowcreek Landfill**

Facility ID:	1667010007
Permit Number:	P0118262
Permit Type:	Renewal
Issued:	8/10/2015
Effective:	8/10/2015
Expiration:	8/10/2025



Division of Air Pollution Control
Permit-to-Install and Operate
for
BFI of Ohio / Willowcreek Landfill

Table of Contents

Authorization	1
A. Standard Terms and Conditions	3
1. What does this permit-to-install and operate ("PTIO") allow me to do?.....	4
2. Who is responsible for complying with this permit?	4
3. What records must I keep under this permit?	4
4. What are my permit fees and when do I pay them?.....	4
5. When does my PTIO expire, and when do I need to submit my renewal application?	4
6. What happens to this permit if my project is delayed or I do not install or modify my source?	5
7. What reports must I submit under this permit?	5
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?	5
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ...	5
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?	6
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?	6
12. What happens if one or more emissions units operated under this permit is/are shut down permanently?	6
13. Can I transfer this permit to a new owner or operator?.....	7
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?	7
15. What happens if a portion of this permit is determined to be invalid?	7
B. Facility-Wide Terms and Conditions.....	8
C. Emissions Unit Terms and Conditions	10
1. P901, Existing MSW Landfill	11



Final Permit-to-Install and Operate
BFI of Ohio / Willowcreek Landfill
Permit Number: P0118262
Facility ID: 1667010007
Effective Date: 8/10/2015

Authorization

Facility ID: 1667010007
Application Number(s): A0052504
Permit Number: P0118262
Permit Description: Administrative Modification of PTI P0117059 being completed as a Renewal for a closed municipal solid waste landfill with a gas collection and control system. The facility is now exempt from the requirement to operate under a Title V permit pursuant to 40 CFR 60.752(d)(2) and OAC rule 3745-76-07(D)(2).
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 8/10/2015
Effective Date: 8/10/2015
Expiration Date: 8/10/2025
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

BFI of Ohio / Willowcreek Landfill
1043 State Route 225
Atwater, OH 44201

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

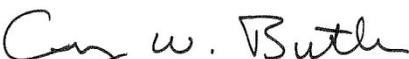
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Akron Regional Air Quality Management District
1867 West Market St.
Akron, OH 44313
(330)375-2480

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


Craig W. Butler
Director



Final Permit-to-Install and Operate
BFI of Ohio / Willowcreek Landfill
Permit Number: P0118262
Facility ID: 1667010007
Effective Date: 8/10/2015

Authorization (continued)

Permit Number: P0118262
Permit Description: Administrative Modification of PTI P0117059 being completed as a Renewal for a closed municipal solid waste landfill with a gas collection and control system. The facility is now exempt from the requirement to operate under a Title V permit pursuant to 40 CFR 60.752(d)(2) and OAC rule 3745-76-07(D)(2).

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

Emissions Unit ID:	P901
Company Equipment ID:	Existing MSW Landfill
Superseded Permit Number:	P0117059
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
BFI of Ohio / Willowcreek Landfill
Permit Number: P0118262
Facility ID: 1667010007
Effective Date: 8/10/2015

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. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. 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 of this permit 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 [DO/LAA] 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 submitting 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 emission 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.

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.



Final Permit-to-Install and Operate
BFI of Ohio / Willowcreek Landfill
Permit Number: P0118262
Facility ID: 1667010007
Effective Date: 8/10/2015

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.



Final Permit-to-Install and Operate
BFI of Ohio / Willowcreek Landfill
Permit Number: P0118262
Facility ID: 1667010007
Effective Date: 8/10/2015

C. Emissions Unit Terms and Conditions

1. P901, Existing MSW Landfill

Operations, Property and/or Equipment Description:

Closed Municipal Solid Waste (MSW) Landfill with a landfill gas collection and control system (McGill 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. None.

(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) Best Available Technology	<p>Fugitive Landfill Emissions:</p> <p>Particulate emissions (PE) shall not exceed 0.059 ton per acre of cell per year, and 2.0 tons per year.</p> <p>Controlled Emissions from Enclosed Flare:</p> <p>Non-methane organic compound (NMOC) emissions shall not exceed 0.25 pound per hour.</p> <p>Nitrogen oxides (NO_x) emissions shall not exceed 4.20 pounds per hour.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 2.33 pounds per hour.</p> <p>Carbon monoxide (CO) emissions shall not</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>exceed 16.2 pounds per hour.</p> <p>Hydrochloric acid (HCl) emissions shall not exceed 0.48 pound per hour.</p> <p>Vinyl chloride monomer (VCM) emissions shall not exceed 0.15 pound per hour.</p> <p>Benzene emissions shall not exceed 0.05 pound per hour.</p> <p>See b)(2)a. through b)(2)f. below.</p>
b.	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-10(B)(1)	PE shall not exceed 0.020 pound per million Btu of actual heat input.
d.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-19	See b)(2)g. below.
f.	OAC rule 3745-76-(01) thru (15)	See b)(2)h. below.

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) requirements include compliance with OAC rules 3745-17-07(A)(1) and 3745-17-10(B)(1).
- b. The hourly emission limitations for the enclosed flare 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. 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 (BFI) of Ohio Permit-to-Install (PTI) application submitted on March 13, 1992, 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.
- d. Landfill Gas Control System
- All collected landfill gas shall be routed to a control system (enclosed flare) designed and operated, within the parameters demonstrated during the most recent performance test which demonstrated compliance, to reduce NMOC by 98 weight-percent at maximum inlet concentration. The NMOC concentration shall be determined by Method 25.
- e. The equipment that constitutes the landfill gas collection and control system shall be properly maintained and kept in good operating condition at all times.
 - f. The skin temperature of the flare shroud within four feet of all the source test ports shall not exceed 250°F. 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.
 - g. There shall be no open burning, in violation of OAC Chapter 3745-19, at this facility.
 - h. The control requirements of this rule no longer apply to this facility pursuant to OAC rule 3745-76-07(B)(2)(e).
- c) Operational Restrictions
- (1) The permittee shall operate the collection system such that all collected landfill gases are vented to a control system designed and operated in compliance with the requirements in this permit.
 - (2) The permittee shall operate the control system at all times when the collected landfill gas is routed to the system.
 - (3) Whenever the flare is in operation, a temperature of at least 1400 degrees Fahrenheit (°F), or higher if necessary to ensure 98 weight-percent destruction of NMOC, as measured by the temperature indicator, must be maintained.
 - (4) 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.
- 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 shall not be less than 1400°F, or more than 50°F 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, including periods of startup and shutdown. Units shall be in degrees Fahrenheit (°F). 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 $\pm 5^\circ\text{F}$, 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 during which the average combustion temperature within the enclosed flare was below 1400°F, or more than 50°F 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, and monitoring equipment.

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.
- (4) 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 average combustion temperature of the enclosed flare 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.

- (5) 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.
 - (6) The permittee shall, upon each visit to this closed facility, and at a minimum of once per month during normal operating conditions, visually inspect the enclosed flare and record whether or not any visible emissions are present and the duration of any visible emissions.
- e) Reporting Requirements
- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate Ohio EPA District Office or Local Air Agency.
 - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the appropriate Ohio EPA District Office or Local Air Agency 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.
 - (3) The permittee shall identify in the annual PER the following information concerning the operations of the enclosed flare during the 12-month reporting period for this emissions unit:

- 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 acceptable range specified in this permit;
 - 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 e)(3)a. or e)(3)b. where a prompt investigation was not conducted;
 - d. Each incident of deviation described in e)(3)a. or e)(3)b. where prompt corrective action, that would bring the unit into compliance, was determined to be necessary and was not taken; and
 - e. Each incident of deviation described in e)(3)a. or e)(3)b. where proper records were not maintained for the investigation and/or the corrective action(s).
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitations:

PE shall not exceed 0.059 ton per acre of cell per year, and 2.0 tons per year.

Applicable Compliance Method:

Compliance with the PE limitations identified above shall be demonstrated using Ohio EPA's "Reasonably Available Control Measures for Fugitive Dust Sources (RACM)" emission factor of 0.048 ton of particulate per acre of cell worked (Table 2.1.2-5, 1983).
 - b. Emission Limitation:

NMOC emissions shall not exceed 0.25 pound per hour.

Applicable Compliance Methods:

Compliance with the hourly allowable NMOC emission limitation identified above shall be demonstrated by the following calculation, using a maximum flow rate of 2,000 cubic feet per minute for the enclosed flare, a landfill gas (LFG) concentration of 472 ppmv, and 98% control efficiency:

$$(2,000 \text{ ft}^3/\text{min}) \times (60 \text{ min}/\text{hr}) \times (472 \times 10^{-6} \text{ lb}^* \text{mol} / 1 \text{ lb}^* \text{mol LFG}) \times (1 \text{ lb}^* \text{mol LFG} / 386 \text{ scf}) \times (86.18 \text{ lbsNMOC}/\text{lb}^* \text{mol}) \times (1 - 0.98) = 0.25 \text{ lb NMOC}/\text{hr}$$

If required, compliance with the hourly limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4, and 18 or 25C of 40 CFR Part 60, Appendix A.

c. Emission Limitation:

NO_x emissions shall not exceed 4.2 pounds per hour.

Applicable Compliance Methods:

Compliance with the hourly allowable NO_x emission limitation identified above shall be demonstrated by the following calculation, using the maximum gas flow rate of 2,000 cubic feet per minute for the enclosed flare, an average landfill gas (LFG) content of 500 Btu per cubic foot, and an emission factor of 0.07 pound NO_x per MMBtu:

$$(2,000 \text{ ft}^3/\text{min}) \times (60 \text{ min}/\text{hr}) \times (500 \text{ Btu}/\text{ft}^3) \times (1 \text{ MMBtu}/ 1 \times 10^6 \text{ Btu}) \times (0.07 \text{ lb NO}_x/\text{MMBtu}) = 4.2 \text{ lbs NO}_x/\text{hr}$$

If required, compliance with the hourly limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4, and 7 of 40 CFR Part 60, Appendix A.

d. Emission Limitation:

SO₂ emissions shall not exceed 2.33 pounds per hour.

Applicable Compliance Methods:

Compliance with the hourly allowable SO₂ emission limitation identified above shall be demonstrated by the following calculation, using the maximum gas flow rate of 2,000 cubic feet per minute for the enclosed flare, a landfill gas (LFG) concentration of 46.9 ppmv (AP-42 Section 2.4.4.2, dated November 1998) and an adjustment factor of 2.5:

$$(2.5) \times (2,000 \text{ ft}^3/\text{min}) \times (60 \text{ min}/\text{hr}) \times (46.9 \times 10^{-6} \text{ lb} \cdot \text{mol S} / 1 \text{ lb} \cdot \text{mol LFG}) \times (1 \text{ lb} \cdot \text{mol LFG} / 386 \text{ scf}) \times (64 \text{ lbs SO}_2/\text{lb} \cdot \text{mol}) = 2.33 \text{ lbs SO}_2/\text{hr}$$

If required, compliance with the hourly limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4, and 6 of 40 CFR Part 60, Appendix A.

e. Emission Limitation:

CO emissions shall not exceed 16.2 pounds per hour.

Applicable Compliance Methods:

Compliance with the hourly allowable CO emission limitation identified above shall be demonstrated by the following calculation, using the maximum gas flow rate of 2,000 cubic feet per minute for the enclosed flare, an average landfill gas

(LFG) content of 500 Btu per cubic foot, and an emission factor of 0.27 pound CO per MMBtu:

$$(2,000 \text{ ft}^3/\text{min}) \times (60 \text{ min}/\text{hr}) \times (500 \text{ Btu}/\text{ft}^3) \times (1 \text{ MMBtu}/1 \times 10^6 \text{ Btu}) \times (0.27 \text{ lb CO}/\text{MMBtu}) = 16.2 \text{ lbs CO}/\text{hr}$$

If required, compliance with the hourly limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4, and 10 of 40 CFR Part 60, Appendix A.

f. Emission Limitation:

HCl emissions shall not exceed 0.48 pound per hour.

Applicable Compliance Methods:

Compliance with the hourly allowable HCl emission limitation identified above shall be demonstrated by the following calculation, using the maximum gas flow rate of 2,000 cubic feet per minute for the enclosed flare and a landfill gas (LFG) concentration of 42.0 ppmv (AP-42 Section 2.4.4.2, dated November 1998):

$$(2,000 \text{ ft}^3/\text{min}) \times (60 \text{ min}/\text{hr}) \times (42.0 \times 10^{-6} \text{ lb}^* \text{mol HCl} / 1 \text{ lb}^* \text{mol LFG}) \times (36.5 \text{ lbs HCl}/\text{lb}^* \text{mol}) \times (1 \text{ lb}^* \text{mol}^{\circ} \text{R} / 0.7302 \text{ atm}^* \text{ft}^3) \times (1 / 520^{\circ} \text{R}) = 0.48 \text{ lb HCl}/\text{hr}$$

If required, compliance with the hourly limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4, and 26 of 40 CFR Part 60, Appendix A.

g. Emission Limitation:

VCM emissions shall not exceed 0.15 pound per hour.

Applicable Compliance Methods:

Compliance with the hourly allowable VCM emission limitation identified above shall be demonstrated by the following calculation, using the maximum gas flow rate of 2,000 cubic feet per minute for the enclosed flare and a landfill gas (LFG) concentration of 7.34 ppmv (AP-42 Table 2.4-1, dated November 1998):

$$(2,000 \text{ ft}^3/\text{min}) \times (60 \text{ min}/\text{hr}) \times (7.34 \times 10^{-6} \text{ lb}^* \text{mol VCM} / 1 \text{ lb}^* \text{mol LFG}) \times (62.5 \text{ lbs VCM}/\text{lb}^* \text{mol}) \times (1 \text{ lb}^* \text{mol}^{\circ} \text{R} / 0.7302 \text{ atm}^* \text{ft}^3) \times (1 / 520^{\circ} \text{R}) = 0.15 \text{ lb VCM}/\text{hr}$$

If required, compliance with the hourly limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4, and 106 of 40 CFR Part 60, Appendix A.

h. Emission Limitation:

Benzene emissions shall not exceed 0.05 pound per hour.

Applicable Compliance Methods:

Compliance with the hourly allowable benzene emission limitation identified above shall be demonstrated by the following calculation, using the maximum gas flow rate of 2,000 cubic feet per minute for the enclosed flare and a landfill gas (LFG) concentration of 1.91 ppmv (AP-42 Table 2.4-2, dated November 1998):

$$(2,000 \text{ ft}^3/\text{min}) \times (60 \text{ min/hr}) \times (1.91 \times 10^{-6} \text{ lb}^* \text{mol benzene} / 1 \text{ lb}^* \text{mol LFG}) \times (78.12 \text{ lbs VCM/lb}^* \text{mol}) \times (1 \text{ lb}^* \text{mol}^{\circ} \text{R} / 0.7302 \text{ atm}^* \text{ft}^3) \times (1 / 520^{\circ} \text{R}) = 0.05 \text{ lb benzene/hr}$$

If required, compliance with the hourly limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4, and 18 of 40 CFR Part 60, Appendix A.

i. Emission Limitation:

Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance with the opacity limitation identified above shall be demonstrated through the results of visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

j. Emission Limitation:

PE shall not exceed 0.020 pound per million Btu of actual heat input.

Applicable Compliance Method:

If required, compliance with the PE limitation identified above shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

g) Miscellaneous Requirements

(1) None.