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

3/20/2015

Certified Mail

Facility ID: 0322000295
Permit Number: P0118050
County: Erie

James Hiendlmayr
Bio-Gas Technologies, LTD
2025 George St
Sandusky, OH 44870

RE: FINAL AIR POLLUTION CONTROL TITLE V PERMIT
Permit Type: Minor Permit Modification

Dear Permit Holder:

Enclosed is a finalOhio Environmental Protection Agency (EPA) Air Pollution Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it 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 Title V permit 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 regarding this permit, please contact the Ohio EPA DAPC, Northwest District Office as indicated on page one of your permit.

Sincerely,

Erica R. Engel-Ishida, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
Ohio EPA DAPC, Northwest District Office

FINAL

Division of Air Pollution Control
Title V Permit
for
Bio-Gas Technologies, LTD

Facility ID:	0322000295
Permit Number:	P0118050
Permit Type:	Minor Permit Modification
Issued:	3/20/2015
Effective:	3/20/2015
Expiration:	12/18/2018

Division of Air Pollution Control
Title V Permit
for
Bio-Gas Technologies, LTD

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Authorization

Facility ID:	0322000295
Facility Description:	Electric Services
Application Number(s):	A0052136
Permit Number:	P0118050
Permit Description:	Title V minor permit modification to add new emissions unit P004.
Permit Type:	Minor Permit Modification
Issue Date:	3/20/2015
Effective Date:	3/20/2015
Expiration Date:	12/18/2018
Superseded Permit Number:	P0114530

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

Bio-Gas Technologies, LTD
10215 Hoover Road
Milan, OH 44846

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

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

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Northwest District Office. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months and no later than 6 months prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director

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. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions

(2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions

(3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

(4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(5) Standard Term and Condition A. 30.

(Authority for term: ORC 3704.036(A))

2. 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 (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), 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.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

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 all calibration and maintenance records and all original strip-chart recordingsfor continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c) The permittee shall submit required reports in the following manner:

(1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any submittedscheduled maintenancerequests, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

(2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be submitted promptly to the Ohio EPA DAPC, Northwest District Office. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

(3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted to the Ohio EPA DAPC, Northwest District Office by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from

federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

(4) 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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete." Signature by the Responsible Official may be represented by entry of the personal identification number (PIN) by the Responsible Official as part of the electronic submission process or by the scanned attestation document signed by the Responsible Official that is attached to the electronically submitted written report.

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

(5) Consistent with A.2.c.1. above, reports of any required monitoring and/or record keeping information required to be submitted to Ohio EPA shall be submitted to Ohio EPA DAPC, Northwest District Office unless otherwise specified.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Reporting of Any Exceedence of a Federally Enforceable Emission Limitation or Control Requirement Resulting From Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a

deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

4. Risk Management Plans

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or

b) as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

5. 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.

(Authority for term: OAC rule 3745-77-07(A)(5))

6. Severability Clause

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.

(Authority for term: OAC rule 3745-77-07(A)(6))

7. 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 reissuance, or modification, or for denial of a permit renewal application.

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 permitexcept as provided pursuant to A.16 below.

c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.11 below. 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, reopening 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.

f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:

(1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or

(2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or

(3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. 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.

(Authority for term: OAC rule 3745-77-07(A)(8))

9. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

10. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these standard terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

11. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

12. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that 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, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

(Authority for term: OAC rule 3745-77-07(B))

13. Compliance Requirements

a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V 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 paragraph (E) of OAC rule 3745-77-03.

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

(4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c) The permittee shall submit progress reports to the Ohio EPA DAPC, Northwest District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

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

(2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the Ohio EPA DAPC, Northwest District Office) and the Administrator of the U.S. EPA in the following manner and with the following content:

(1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.

(2) Compliance certifications shall include the following:

a. Identification of each term or condition that is the basis of the certification. The identification may include a statement by the Responsible Official that every term and condition that is federally enforceable has been reviewed, and such terms

and conditions with which there has been continuous compliance throughout the year are not separately identified.

b. The permittee's current compliance status.

c. Whether compliance was continuous or intermittentconsistent with A.13.d.2.a above.

d. The method(s) used for determining the compliance status of the source currently and over the required reporting period consistent with A.13.d.2.a above.

e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

(3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

14. Permit Shield

a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

15. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the Ohio EPA DAPC, Northwest District Office with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the Ohio EPA DAPC, Northwest District Office as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

16. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

(Authority for term: OAC rule 3745-77-07(G))

17. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.

b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(Authority for term: OAC rule 3745-77-07(I))

18. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Federal Register 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)

19. Insignificant Activities or Emissions Levels

Each IEU that is subject to one or more applicable requirements shall comply with those applicable requirements.

(Authority for term: OAC rule 3745-77-07(A)(1))

20. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-07(A)(1))

21. 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.

(Authority for term: OAC rule 3745-77-07(A)(1))

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the Responsible 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 Responsible Official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that 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 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

Unless otherwise exempted, noemissions unit identified in this permit that has beencertified by the Responsible Official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a) Persons operating appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.

b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.

c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

24. Reporting Requirements Related to Monitoring and Record Keeping RequirementsUnder State Law Only

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or record keeping information shall be submitted to theOhio EPA DAPC, Northwest District Office.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northwest District Office. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. 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.)

25. Records Retention RequirementsUnder State Law Only

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.

26. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

(Authority for term: OAC rule 3745-77-07(C))

27. Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northwest District Office in accordance with paragraph (B) of 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 emissions unit(s) that is (are) served by such control system(s).

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Ohio EPA DAPC, Northwest District Office must be notified in writing of any transfer of this permit.

(Authority for term: OAC rule 3745-77-01(C))

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

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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 by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or

b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potential to emit; or

c) where the company's Responsible Official has certified that an emissions unit has been permanently shut down.

30. Submitting Documents Required by this Permit

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 ofan 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 Ohio EPA DAPC, Northwest District Office, 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 required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the Responsible Official may be represented as provided through procedures established in Air Services.

B. Facility-Wide Terms and Conditions

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

   a) None.

2. This facility is subject to 40 CFR Part 60, Subpart JJJJ, New Source Performance Standards: Stationary Spark Ignition Internal Combustion Engines. The permittee shall comply with all applicable requirements of 40 CFR Part 60, Subpart JJJJ. The permittee shall also comply with all applicable requirements of 40 CFR Part 60, Subpart A (General Provisions) as identified in Table 3 of 40 CFR Part 63, Subpart JJJJ. Compliance with all applicable requirements shall be achieved by the dates set forth in 40 CFR Part 60 Subpart JJJJ and Subpart A. The NSPS 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 the appropriate Ohio EPA District office or local air agency.

   [Authority for Term: 40 CFR, Part 60, Subpart JJJJ]

C. Emissions Unit Terms and Conditions

1. P001, 13.9 mmBtu/hr LFG fired IC engine/generator #1

Operations, Property and/or Equipment Description:

13.9 mmBtu/hr LFG fired IC engine/generator #1

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) b)(1)k. and g)(3).

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) [PTI P0115342, issued 09/27/2013]	5.90 lbs nitrogen oxides (NOx)/hr; 25.8 tons NOx/yr 14.76 lbs carbon monoxide (CO)/hr; 64.7 tons CO/yr 4.92 lbs volatile organic compounds (VOC)/hr; 21.6 tons VOC/yr See b)(2)a. and g)(1).
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01 [PTI P0115342, issued 09/27/2013]	1.58 lbs sulfur dioxide (SO2)/hr; 6.92 tons SO2/yr 0.67 lb particulate matter less than 10 microns in size (PM10)/hr; 2.93 tons PM10/yr b)(2)b. and b)(2)d.
c.	OAC rule 3745-31-05(A)(3), as effective 12/01/06 [PTI P0115342, issued 09/27/2013]	See b)(2)c.
d.	OAC rule 3745-17-11(B)(5)(b)	0.062 lb of particulate emissions (PE) per mmBtu actual heat input
e.	OAC rule 3745-17-07(A)(1)	Visible PE shall not exceed 20% opacity, as a six minute average, except as provided by rule
f.	OAC rule 3745-18-06(G)	0.5 lb Sulfur dioxide (SO2) per mmBtu actual heat input
g.	OAC rule 3745-110-03(F)(2)	See b)(2)g.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
h.	40 CFR, Part 60, Subpart JJJJ	See b)(2)i. and g)(2).
i.	40 CFR, Part 63, Subpart ZZZZ	See b)(2)e.
j.	40 CFR, Part 60, Subpart WWW	None, see b)(2)f.
k.	ORC 3704.03(F) OAC rule 3745-114-01	None, see g)(3).
l.	40 CFR, Part 60, Subpart A 40 CFR 60.1-19 (40 CFR 60.4246)	Table 3 to Subpart JJJJ of 40 CFR Part 60 – Applicability of General Provisions to Subpart JJJJ shows which parts of the General Provisions in 40 CFR 60.1-19 apply. See b)(2)h.

(2) Additional Terms and Conditions

a. The Best Available Technology (BAT) requirements for this emissions unit have been determined to be the use of "lean burn technology." BAT requirements also include compliance with the terms and conditions of this permit.

b. The permittee has satisfied the Best Available Technology (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 regulations for NAAQS pollutants less than ten tons per year. 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 revisions 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 3745-31-05, then the requirements of OAC rule 3745-31-05(A)(3), as effective November 30, 2001, will no longer apply.

c. 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 Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the SO2 and PM10 from this air contaminant source since the uncontrolled potential to emit* rate for SO2 and PM10 are each less than 10 tons per year.

*The PTE for SO2 for this emissions unit is 6.92 tons per year and was determined by assuming the total sulfur content in the landfill gas is converted to SO2. The sulfur concentration in the landfill gas was determined by the method outlined in AP-42 section 2.4.4.2.

*The PTE for PM10 for this emissions unit is 2.93 tons per year and was determined by multiplying manufacturer's test data (0.048 lb/mmBtu), a

maximum heat input of 13.9 mmBtu/hr, a maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton.

d. The requirements of this rule also include compliance with the requirements of OAC rule 3745-18-06(G).

e. Pursuant to 40 CFR Part 63.6590(c), this emissions unit must meet the requirements of 40 CFR Subpart JJJJ to be in compliance with 40 CFR Part 63, Subpart ZZZZ. No other requirements under 40 CFR Part 63, Subpart ZZZZ apply to this emissions unit.

f. This emissions unit receives landfill gas from the Erie County Sanitary Landfill which is not subject to the control requirements in 40 CFR Part 60, Subpart WWW. Therefore no control requirements under 40 CFR Part 60, Subpart WWW apply to this emissions unit.

g. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

h. The following term and condition addresses the requirements for replacing emissions unit P001 due to unforeseen circumstances (i.e. catastrophic failure) which result in the existing engine being inoperable:

i. The replacement engine must be manufactured by Caterpillar with a model of G3520C, and have the same emission factors as the existing engine.

ii. The replacement engine must not increase the rated capacity, production rate, or throughput of the existing engine.

iii. The permittee shall notify the Ohio EPA, Northwest District Office when an engine replacement is necessary. This notification may be verbally or in writing and must be within five days of the determination that an engine replacement is necessary due to the inoperative state of the existing engine.

iv. The permittee shall submit the written notification requested in section e)(4).

v. The replacement engine must comply with all of the terms and conditions of this permit.

vi. The permittee may install and operate only 1 engine at this facility.

vii. If the permittee installs an engine that was manufactured after July 1, 2007, this engine will be subject to the requirements of 40 CFR Subpart JJJJ [See d)(2) and e)(3)].

viii. If the permittee does not operate and maintain a certified stationary SI internal combustion engine and control device according to the

manufacturer's emission-related written instructions, that engine will be considered a non-certified engine [See f)(3)].

i. The permittee must comply with the following requirements of 40 CFR Part 60 Subpart JJJJ:

60.4236	Deadline for importing or installing stationary SI ICE produced in previous model years.

c) Operational Restrictions

(1) This emissions unit shall burn only landfill gas.

[OAC rule 3745-77-07(A)(1) and PTI P0115342]

(2) The permittee shall install, calibrate, maintain and operate according to the manufacturer's specifications a device at the inlet to the internal combustion engine which completely shuts off gas flow to the internal combustion engine when the internal combustion engine is not operating.

[OAC rule 3745-77-07(A)(1) and PTI P0115342]

(3) When the internal combustion engine is not operating, the landfill gas shall be diverted to the existing flare or to an internal combustion engine that is operating.

[OAC rule 3745-77-07(A)(1) and PTI P0115342]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record each day when a fuel other than landfill gas was burned in this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI P0115342]

(2) If applicable, the permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR, Subpart JJJJ, including the following sections:

60.4243(a)(1)	certified engine maintenance records
60.4243(a)(1)	non-certified engine maintenance plan and maintenance records
60.4245(a)	documentation and record requirements for certified and non-certified engines

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 60, Subpart JJJJ]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than landfill gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI P0115342]

(2) Any breakdown or malfunction resulting in the emission of raw landfill gas to the atmosphere shall be reported to the Northwest District Office of the Ohio EPA within one hour after the occurrence, or as soon as reasonably possible, and immediate remedial measures shall be undertaken to correct the problem and prevent further emissions to the atmosphere.

[OAC rule 3745-77-07(C)(1) and PTI P0115342]

(3) If applicable, the permittee shall submit notifications and reports for non-certified engines to the appropriate Ohio EPA District Office or local air agency as required pursuant to 40 CFR, Subpart JJJJ, including the following sections:

60.4245(c)	non-certified engine notification
60.4245(d)	due date for stack test reports

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 60, Subpart JJJJ]

(4) In the event of unforeseen circumstances (i.e. catastrophic failure) which results in the existing engine being inoperable, the permittee must submit a written statement to the Ohio EPA, Northwest District Office. The statement must be submitted within 30 days of the installation of the replacement engine and shall include the following information:

a. The manufactured date for the replacement engine;

b. The manufacturer, model number and serial number for the replacement engine;

c. The installation and startup dates for the replacement engine; and

d. An affirmation from the permittee, that the replacement engine will be operated in compliance with the terms and conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI P0104534]

(5) 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.

[OAC rule 3745-15-03(A)]

f) Testing Requirements

(1) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted in accordance with Ohio EPA, Office of Air Pollution Control, Engineering Guide #16.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for, NOx, CO, and VOC.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for NOx, Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A; for CO, Methods 1 through 4 and 10 of 40 CFR, Part 60, Appendix A; for VOC, Methods 1 through 4 and Method 18, 25, 25a or 25c, as applicable, of 40 CFR, Part 60, Appendix A, including any additional requirements as specified by 40 CFR Part 60, Subpart JJJJ. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The tests shall be conducted while the emissions unit is operating at its maximum capacity unless otherwise specified or approved by the Ohio EPA, NWDO.

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

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

g. A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, NWDO within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, NWDO.

[OAC rule 3745-77-07(C)(1)]

(2) 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:

5.90 lbs NOx/hr, 25.8 tons NOx/yr

14.76 lbs CO/hr, 64.7 tons CO/yr

4.92 lbs VOC/hr, 21.6 tons VOC/yr

Applicable Compliance Method:

Compliance with the hourly mass emission limitations shall be demonstrated by the performance testing required in condition f)(1). The annual emission limitations were developed by multiplying the respective hourly emission limitations by the maximum operating schedule of 8760 hrs/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance with the annual limitations shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0115342]

b. Emission Limitations:

1.58 lbs SO2/hr; 6.92 tons SO2/yr

Applicable Compliance Method:

The hourly emission limitation was determined by multiplying the maximum methane generation rate of 232 dry standard cubic foot (dscf) per minute by an AP-42 emission factor of 113.314 lb/10^6dscf (Section 2.4.4.2, revised 11/98), then multiplying by 60 minutes/hour.

If required, compliance with the hourly emission limitation shall be determined in accordance with Methods 1-4 and 6 of 40 CFR, Part 60, Appendix A.

The annual emission limitation was determined by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0115342]

c. Emission Limitations:

0.67 lb PM10/hr; 2.93 tons PM10/yr

Applicable Compliance Method:

The hourly emission limitation was determined by multiplying the maximum heat input of 13.9 mmBtu/hr by manufacturer's test data (0.048 lb/mmBtu).

If required, compliance with the hourly emission limitation shall be determined in accordance with Methods 1-4 of 40 CFR, Part 60, Appendix A and Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M.

The annual emission limitation was determined by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0115342]

d. Emission Limitation:

0.062 lb PE/mmBtu actual heat input

Applicable Compliance Method:

The potential to emit* for this emissions unit is 0.048 lb PE/mmBtu and complies with the lb/mmBtu emission limitation. Therefore no record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

*Potential to emit for this emissions unit was established by manufacturer's emission testing data.

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI P0115342]

e. Emission Limitation:

0.5 lb SO2/mmBtu actual heat input

Applicable Compliance Method:

The potential to emit* for this emissions unit is 0.1137 lb SO2/mmBtu and complies with the lb/mmBtu emission limitation. Therefore no record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

* The potential to emit for SO2 was determined assuming the total sulfur content in the landfill gas is converted to SO2. The sulfur concentration in the landfill gas was determined by the method outlined in AP-42 section 2.4.4.2.

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 – 4 and 6 of 40 CFR Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI P0115342]

f. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a six-minute average, except as specified by rule

Applicable Compliance Method:

If required, compliance with the visible PE limitations shall be demonstrated determined in accordance with OAC Rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI P0115342]

(3) If a non-certified engine is installed at the facility, and the engine was manufactured after July 1, 2007, the permittee shall conduct emission testing for this emissions unit in accordance with the following requirements:

a. The emissions testing shall be conducted within one year of engine startup and conduct subsequent performance testing every 8760 hrs of operation or 3 years, whichever comes first, thereafter to demonstrate compliance.

b. The emission testing shall be conducted to demonstrate compliance with the following limits:

i. The mass emission limitations of 5.90 lbs NOx/hr,14.76 lbs CO/hr and 4.92 lbs VOC/hr.

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

i. Methods 1-4 of 40 CFR, Part 60, Appendix A;

ii. For NOx – Method 7 of 40 CFR, Part 60, Appendix A;

iii. For CO – Method 10 of 40 CFR, Part 60, Appendix A; and

iv. For VOC – Methods 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

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

d. The tests shall be conducted while this emissions unit is operating at its maximum capacity and meet the testing requirements in 40 CFR 60.4244, unless otherwise specified or approved by the Ohio EPA, Division of Air Pollution Control. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Division of Air Pollution Control. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the times and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval

prior to the tests may result in the Ohio EPA District Office's air agency's refusal to accept the results of the emissions tests.

e. Personnel from the Ohio EPA District Office's air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions unit and/or the performance of the control equipment. A comprehensive written report on the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Division of Air Pollution Control within 60 days following completion of the tests.

[OAC rule 3745-77-07(C)(1) and PTI P0104534]

g) Miscellaneous Requirements

(1) The permittee shall incorporate “Good Engineering Practices” with regards to the design of the stack height on this emissions unit. For this permit determination, a stack with a minimum height that meets or exceeds the maximum height of any nearby hill or other structure shall meet the “Good Engineering Practice” requirements.

[OAC rule 3745-77-07(C)(1) and PTI P0115342]

(2) This emissions unit shall meet the applicable requirements pursuant to 40 CFR Part 60.4243 of Subpart JJJJ Part 60 - Compliance Requirements for Owners and Operators.

[OAC rule 3745-77-07(C)(1), PTI P0115342 and 40 CFR, Part 60, Subpart JJJJ]

(3) 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 permittees to apply for and obtain a new or modified permit to install 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 may require the permittee to apply for and obtain a new permit to install.

[PTI P0115342, ORC 3704.03(F) and OAC rule 3745-114-01]

2. P003, LFG Flare

Operations, Property and/or Equipment Description:

Landfill Gas Flare

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) b)(1)d.; b)(2)d.; b)(2)e.; b)(2)f.; c)(1); c)(2); d)(1) through d)(4); e)(1) through e)(3); and f)(1).

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) [PTI P0114943, issued 06/17/2013]	Flare Combustion Emissions: 46.0 pounds carbon monoxide (CO)/10^6 dscf methane 39.0 lbs nitrogen oxides (NOx)/10^6 dscf methane See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01 [PTI P0114943, issued 06/17/2013]	See b)(2)b. Controlled Landfill Gas Emissions: 0.14 pound volatile organic compounds (VOC)/hour; 0.03 ton VOC/year Flare Combustion Emissions: 15.0 pounds particulate matter less than 10 microns in size (PM_{10})/10^6 dscf methane; 4.12 tons PM_{10}/year 1.13 pounds sulfur dioxide (SO_2)/hour; 4.95 tons SO_2/year
c.	OAC rule 3745-31-05(A)(3), as effective 12/01/06 [PTI P0114943, issued 06/17/2013]	See b)(2)c.
d.	OAC rule 3745-31-05(E) [PTI P0114943, issued 06/17/2013]	See b)(2)d. and b)(2)e. Landfill gas collection and control

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		requirements [See b)(2)f.] Visible Emission Limitation [See b)(2)f.i.]
e.	OAC rule 3745-17-07(B)(1)	This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
f.	OAC rule 3745-17-08(B)	The facility is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B)(1).

(2) Additional Terms and Conditions

a. In accordance with ORC rule 3704.03(T), Best Available Technology (BAT) for VOC emissions from this emissions unit has been determined to be compliance with the emission limitations established in b)(1)a.

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. The requirements of this also rule include compliance with the state-only restrictions established in accordance with OAC rule 3745-31-05(E).

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. 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 revisions 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 3745-31-05, then these emission limits/control measures no longer apply.

c. 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 Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the PE, NMOC, and methane emitted from this emissions unit. BAT (under Senate Bill 265 changes) is only applicable to emissions of an air contaminant or precursor of an air contaminant for which a national ambient air quality standard (NAAQS) has been adopted under the Clean Air Act. PE (also referred to as total suspended particulate or particulate

matter), NMOC, and methane are air contaminants that do not involve an established NAAQS.

Additionally, the BAT requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the VOC, SO_2, and PM_{10} emissions from this air contaminant source because each pollutant is less than 10 tons per year.

d. The Ohio EPA is imposing terms and conditions under OAC rule 3745-31-05(E) "state-only enforceable limitations" associated with the control of gas from the installation and operation of the voluntary active gas collection system (including the flare).

[OAC rule 3745-31-05(E)]

e. All gas collected by Erie County Sanitary Landfill (premise number 0322010254) and received by the permittee shall comply with at least one of the following requirements:

i. The collected gas may be routed to a flare designed and operated in accordance with the requirements specified in b)(2)f.; AND/OR

ii. The collected gas may be routed to a control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

[OAC rule 3745-31-05(E)]

f. Except as provided in b)(2)e.ii., anycollected gas received by the permittee shall be vented to an open flare designed and operated as follows:

i. The flare shall be designed for and operated with no visible emissions as determined by the Method 22 of Appendix A of 40 CFR, Part 60, except for a periods not to exceed a total of 5 minutes during any 2 consecutive hours. The observation period for compliance determination is 2 hours and shall be used according to Method 22.

ii. The flare shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of flame.

iii. The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by 40 CFR 60 Appendix A Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

iv. Flares shall be steam-assisted, air-assisted, or nonassisted. The permittee shall comply with either the requirements in paragraphs (a) and (b); OR the requirements in paragraph (c):

(a) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 BTU/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 BTU/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted shall be determined as follows:

$H_T = K \times \sum (i = 1 \text{ ton}) \text{ of } C_i H_i$

where:

K = constant, 1.740×10^{-7} [(1/ppm)(g mole/scm)(MJ/Kcal)] where the standard temperature for (g mole/scm) is 20 degree Celsius;

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 degree Celsius and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 degree Celsius;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by 40 CFR 60 Appendix A Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 (Incorporated by reference as specified in 40 CFR 60.17); and

H_i = Net heat of combustion of sample component i, kcal/g mole at 25 degree Celsius and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated. For this test, the net heating value is calculated from the concentration of methane in the landfill gas as measured by 40 CFR 60 Appendix A Method 3C. A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic compounds, hydrogen, and carbon monoxide is not applicable.

(b) A steam-assisted and non-assisted flare shall be designed for and operated with an exit velocity of less than 18.3 m/sec (60 ft/sec), except:

(i) steam-assisted and non-assisted flares designed for and operated with an exit velocity equal to or greater than 18.3 m/sec but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 BTU/scf); and

(ii) steam-assisted and non-assisted flares designed for and operated with an exit velocity of less than the velocity, Vmax, and less than 122 m/sec (400 ft/sec) are allowed, as determined by the following equation:

$Log_{10} (V_{max}) = (H_T + 28.8)/31.7$

Where:

V_{max} = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

H_T = The net heating value, as determined in b)(2)g.iv.(a).

(c) Flares shall be used that have a diameter of 3 inches or greater, are non-assisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, Vmax, as determined by the following equation:

$V_{max} = (X_{H2} - K_1)*K_2$

Where:

V_{max} = Maximum permitted velocity, m/sec

K_1 = Constant, 6.0 volume-percent hydrogen

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen

X_{H2} = Volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77.

v. Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, Vmax, as determined by the following equation:

$V_{max} = 8.706 + 0.7084 (H_T)$

Where:

V_{max} = Maximum permitted velocity, m/sec

8.706 = Constant

0.7084 = Constant

H_T = Net heating value, as determined in b)(2)g.iv.(a).

[OAC rule 3745-31-05(E) and P0114943]

c) Operational Restrictions

(1) The permittee shall operate the flare at all times when the collected gas is routed to the system.

[OAC rule 3745-77-07(A)(1) and P0114943]

(2) A pilot flame shall be maintained at all times in the flare's pilot burner, or a fail-close valve shall be installed to cease gas flow to the flare when there is no flame present.

[OAC rule 3745-77-07(A)(1) and P0114943]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall install, calibrate, maintain, and operate the following equipment in accordance with the manufacturer's specifications:

a. a heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame; and

b. a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes.

[OAC rule 3745-77-07(C)(1) and P0114943]

(2) If a gas flow rate measuring device is not installed, than the permittee shall secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

[OAC rule 3745-77-07(C)(1) and P0114943]

(3) The permittee shall maintain the following information for the life of the control equipment as measured during, if applicable, the initial performance test or compliance demonstration:

a. the flare type (i.e., steam-assisted, air-assisted, or non-assisted);

b. all visible emission readings;

c. heat content determinations of the gas;

d. flow rate or bypass flow rate measurements;

e. exit velocity determinations made during the performance test as specified in 40 CFR Part 60.18; and

f. continuous records of the flare flame monitoring and all periods of operation during which the flare flame is absent.

[OAC rule 3745-77-07(C)(1) and P0114943]

(4) The permittee shall properly install, operate, and maintain a device to continuously monitor the flare flame when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. In addition, the permittee shall record the following information each day:

a. all periods of time during which there was no flame; and

b. the downtime for the flare and monitoring equipment when the collection and control systems are in operation.

[OAC rule 3745-77-07(C)(1) and P0114943]

e) Reporting Requirements

(1) Any breakdown or malfunction of the landfill gas collection and control system resulting in the emission of raw landfill gas to the atmosphere shall be reported to the Northwest District Office within one hour after the occurrence, or as soon as reasonably possible, and immediate remedial measures shall be undertaken to correct the problem and to prevent further emissions to the atmosphere.

[OAC rule 3745-77-07(C)(1) and P0114943]

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

[OAC rule 3745-77-07(C)(1) and P0114943]

(3) The permittee shall submit annual reports of the recorded information below:

a. value and length of time for any exceedance(s) of the of applicable parameters contained in b)(2)f.;

b. description and duration of all periods when the gas stream is not vented to off-site facilities and is diverted from the control device (flare) through a bypass line or the indication of bypass flow;

c. description and duration of all periods when the control device (flare) was not operating for a period exceeding 1 hour and length of time the control device was not operating;

These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

[OAC rule 3745-77-07(C)(1) and P0114943]

(4) 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.

[OAC rule 3745-15-03(A)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following method(s):

a. Emission Limitations:

i. Controlled Landfill Gas:

0.14 pound VOC/hour and 0.03 ton VOC/year

Applicable Compliance Method:

These emissions represent the highest gas generation/emissions rates which could occur at this facility based on the following landfill capacities:

Landfill Unit	Landfill Capacity (tons)	Maximum Receiving Rate
Closed Unit	1,109,999	Landfill Closed 1988
Closed South Unit	1,413,130	Landfill Closed 2002
Active/BAT Unit	4,720,422	800 tons/day; 240,800 tons/year

The landfill emission limitations contained in this permit can be documented as follows:

ii. NMOC emissions were calculated by Landfill Gas Emission Model (LandGEM). The predicted NMOC emissions were converted to VOC emissions by applying the AP-42 Chapter 2.4 (11/98) conversion rate of 39%.

iii. The following landfill gas collection system capture efficiencies, based on engineering design:

(a) Closed Unit: Not collected/vented to flare;
(b) Closed South Unit: 70%; and
(c) Active/BAT Unit: 52.5%.

iv. A98% control efficiency from the flare for the control of NMOC, as applicable.

v. A maximum operating schedule of 8,760 hours/year.

[OAC rule 3745-77-07(C)(1) and P0114943]

b. Emission Limitations:Flare Combustion Emissions

i. 46.0 pounds CO/10^6dscf methane; and

ii. 39.0 lbs NOx/10^6 dscf methane

Applicable Compliance Method:

The above flare combustion emission limitations were established based on the emission factors from AP-42 Chapter 2.4, Municipal Solid Waste Landfills (Draft October 2008).

Compliance with the annual emission limitations may be demonstrated by multiplying the pound pollutant/10^6dscf methane limitations by a maximum operating schedule of 8,760 hours/year and then dividing by 2,000 pounds/ton.

[OAC rule 3745-77-07(C)(1) and P0114943]

c. Emission Limitations: Flare Combustion Emissions

1.13 pounds SO_2/hour and 4.95 tons SO_2/year

Applicable Compliance Method:

The permittee may demonstrate compliance with the hourly emission limitation by calculating emissions using a combination of the hydrogen sulfide (30 ppvm) and carbonyl sulfide (15 ppmv) concentrations (from laboratory analysis), a landfill gas generation rate of 2,571 scfm, and assuming that 100% of the sulfur content is converted to SO_2.

Compliance with the annual emission limitation may be demonstrated by multiplying the hourly limitation by a maximum operating schedule of 8,760 hours/year and then dividing by 2,000 pounds/ton.

[OAC rule 3745-77-07(C)(1) and P0114943]

d. Emission Limitations: Flare Combustion Emissions

15.0 pounds PM_{10}/10^6dscf methane and 4.12 tons PM_{10}/year

Applicable Compliance Method:

The above flare combustion emission limitation was established based on the emission factor from AP-42 Chapter 2.4, Municipal Solid Waste Landfills (Draft October 2008).

Compliance with the annual emission limitation may be demonstrated by multiplying the pound pollutant/10^6dscf methane limitations by a maximum operating schedule of 8,760 hours/year and then dividing by 2,000 pounds/ton.

[OAC rule 3745-77-07(C)(1) and P0114943]

e. Emission Limitation:

The flare shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Applicable Compliance Method:

If required, compliance shall be determined by visible emission evaluations performed in accordance with USEPA Reference Method 22 as set forth in "Appendix A on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"). The observation period for compliance determination is 2 hours and shall be used according to Method 22.

[OAC rule 3745-77-07(C)(1) and P0114943]

g) Miscellaneous Requirements

(1) None.

3. P004, 9.1 mmBtu/hr LFG fired IC engine #3

Operations, Property and/or Equipment Description:

9.1 mmBtu/hr LFG fired IC engine #3

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(F) PTI P0115335, issued 9/25/13	5.06 lbs nitrogen oxides (NOx)/hr; 22.16 tons NOx/yr 7.84 lbs carbon monoxide (CO)/hr; 34.34 tons CO/yr 1.04 lbs volatile organic compounds (VOC)/hr; 4.56 tons VOC/yr 2.21 lbs sulfur dioxide (SO2)/hr; 9.68 tons SO2/yr 0.56 lb particulate matter less than 10 microns in size (PM10)/hr; 2.47 tons PM10/yr See b)(2)a. and b)(2)e.
b.	ORC 3704.03(T) PTI P0115335, issued 9/25/13	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3), as effective 11/30/01 PTI P0115335, issued 9/25/13	See b)(2)c. and b)(2)f.
d.	OAC rule 3745-31-05(A)(3), as effective 12/01/06 PTI P0115335, issued 9/25/13	See b)(2)d.
e.	OAC rule 3745-17-11(B)(5)(b)	See b)(2)i.
f.	OAC rule 3745-17-07(A)(1)	Visible PE shall not exceed 20% opacity, as a six minute average, except as provided by rule

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-18-06(G)	See b)(2)i.
h.	OAC rule 3745-110-03(F)(2)	See b)(2)j.
i.	40 CFR, Part 60, Subpart JJJJ	See b)(2)i., b)(2)k., b)(2)l., d)(2), e)(3), f)(3), g)(1) and g)(2)
j.	40 CFR, Part 63, Subpart ZZZZ	See b)(2)g.
k.	40 CFR, Part 60, Subpart WWW	See b)(2)h.
l.	40 CFR, Part 60, Subpart A 40 CFR 60.1-19 (40 CFR 60.4246)	Table 3 to Subpart JJJJ of 40 CFR Part 60 – Applicability of General Provisions to Subpart JJJJ shows which parts of the General Provisions in 40 CFR 60.1-19 apply.

(2) Additional Terms and Conditions

a. This permit establishes legally and practically enforceable emission limitationsunder OAC rule 3745-31-05(F) for the purpose of establishing potential to emit (PTE).

b. In accordance with ORC 3704.03(T), this air contaminant sources has the potential to emit of ten or more tons per year of carbon monoxide (CO) and nitrogen oxides (NOx) and as such shall be meet the requirements of any applicable MACT rule in effect. The emissions unit involves a spark ignition reciprocating internal combustion engine and therefore shall meet the requirements of 40 CFR, Part 63, Subpart ZZZZ.

c. Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3), as effective 11/30/2001 have been determined to be compliance with the voluntary restrictions established in accordance with OAC rule 3745-31-05(F) [see b)(2)a.].

The permittee has satisfied the Best Available Technology (BAT) requirements for VOC, SO2 and PM10 emissions 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 regulations for NAAQS pollutants less than ten tons per year. 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 revisions 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 3745-31-05, then the requirements of OAC rule 3745-31-05(A)(3), as effective November 30, 2001, will no longer apply.

It should be noted that the requirements established pursuant to OAC rule 3745-31-05(F) will remain applicable after the above SIP revisions are approved by U.S. EPA.

d. 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 Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the VOC, SO2 and PM10 from this air contaminant source since the uncontrolled potential to emit* rate for VOC, SO2 and PM10 are each less than 10 tons per year.

*The PTE for SO2 for this emissions unit is 9.68 tons per year and was determined by assuming the total sulfur content in the landfill gas is converted to SO2. The sulfur concentration in the landfill gas was determined by the method outlined in AP-42 section 2.4.4.2 [revised 11/98].

*The PTE for PM10 for this emissions unit is 4.12 tons per year and was determined by multiplying the AP-42 emission factor of 48 lb PM10/10^6dscf methane [Table 2.4-5, revised 11/98] by a maximum hourly landfill gas rate of 19,500 cf/hr, by a maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton.

*The PTE for VOC for this emissions unit is 4.56 tons per year and was determined by multiplying the manufacturer emission factor of 0.41 g/bhp-hr by the maximum rated capacity of 1148 bhp by a maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton and 454 g/lb.

e. This rule also includes compliance with the Requirements of 40 CFR Part 60 Subpart JJJJ [see g)(2)]. It should be noted that the emission limitations of OAC rule 3745-31-05(F) are more stringent than the emission limitations established pursuant to 40 CFR Part 60 Subpart JJJJ [see b)(2)g.].

f. The requirements of this rule also include compliance with the requirements of OAC rule 3745-18-06(G).

g. Pursuant to 40 CFR Part 63.6590(c), this emissions unit must meet the requirements of 40 CFR Subpart JJJJ to be in compliance with 40 CFR Part 63, Subpart ZZZZ. No other requirements under 40 CFR Part 63, Subpart ZZZZ apply to this emissions unit.

h. This emissions unit receives landfill gas from the Erie County Sanitary Landfill which is not subject to the control requirements in 40 CFR Part 60, Subpart WWW. Therefore no control requirements under 40 CFR Part 60, Subpart WWW apply to this emissions unit.

i. The emission limitations specified by this rule are as stringent as or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(F).

j. This emissions unit is exempt from the requirements of this rule pursuant to OAC rule 3745-110-03(K)(3).

k. The following term and condition addresses the requirements for replacing emissions unit P004 due to unforeseen circumstances (i.e. catastrophic failure) which result in the existing engine being inoperable:

i. The replacement engine must be manufactured by Caterpillar with a model of G3516LE, and have the same emission factors as the existing engine.

ii. The replacement engine must not increase the rated capacity, production rate, or throughput of the existing engine.

iii. The permittee shall notify the Ohio EPA, Northwest District Office when an engine replacement is necessary. This notification may be verbally or in writing and must be within five days of the determination that an engine replacement is necessary due to the inoperative state of the existing engine.

iv. The permittee shall submit the written notification requested in section e)(4).

v. The replacement engine must comply with all of the terms and conditions of this permit.

vi. The permittee may install and operate only three engines at this facility.

vii. If the permittee installs an engine that was manufactured after July 1, 2007, this engine will be subject to the requirements of 40 CFR Subpart JJJJ [See d)(2) and e)(3)].

l. If the permittee does not operate and maintain a certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, that engine will be considered a non-certified engine [See f)(3)].

c) Operational Restrictions

(1) This emissions unit shall burn only landfill gas.

[OAC rule 3745-77-07(A)(1) and PTI P0115335]

(2) The permittee shall install, calibrate, maintain and operate according to the manufacturer's specifications a device at the inlet to the internal combustion engine which completely shuts off gas flow to the internal combustion engine when the internal combustion engine is not operating.

[OAC rule 3745-77-07(A)(1) and PTI P0115335]

(3) When the internal combustion engine is not operating, the landfill gas shall be diverted to the existing flare or to an internal combustion engine that is operating.

[OAC rule 3745-77-07(A)(1) and PTI P0115335]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record each day when a fuel other than landfill gas was burned in this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI P0115335]

(2) If applicable, the permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR, Subpart JJJJ, including the following sections:

60.4243(a)(1) and (b)(1)	certified engine maintenance records
60.4243(a)(1) and b)(2)	non-certified engine maintenance plan and maintenance records
60.4245(a)	documentation and record requirements for certified and non-certified engines

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 60, Subpart JJJJ]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than landfill gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI P0115335]

(2) Any breakdown or malfunction resulting in the emission of raw landfill gas to the atmosphere shall be reported to the Northwest District Office of the Ohio EPA within one hour after the occurrence, or as soon as reasonably possible, and immediate remedial measures shall be undertaken to correct the problem and prevent further emissions to the atmosphere.

[OAC rule 3745-77-07(C)(1) and PTI P0115335]

(3) If applicable, the permittee shall submit notifications and reports for non-certified engines to the appropriate Ohio EPA District Office or local air agency as required pursuant to 40 CFR, Subpart JJJJ, including the following sections:

60.4245(c)	non-certified engine notification
60.4245(d)	due date for stack test reports

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 60, Subpart JJJJ]

(4) In the event of unforeseen circumstances (i.e. catastrophic failure) which results in the existing engine being inoperable, the permittee must submit a written statement to the Ohio EPA, Northwest District Office. The statement must be submitted within 30 days of the installation of the replacement engine and shall include the following information:

a. The manufactured date for the replacement engine;

b. The manufacturer, model number and serial number for the replacement engine;

c. The installation and startup dates for the replacement engine; and

d. An affirmation from the permittee, that the replacement engine will be operated in compliance with the terms and conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI P0115335]

(5) 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.

[OAC rule 3745-15-03(A)]

f) Testing Requirements

(1) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted in accordance with Ohio EPA, Office of Air Pollution Control, Engineering Guide #16.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for, NOx, CO, and VOC.

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

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

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

iii. for VOC, Methods 1 through 4 and Method 18, 25, 25a or 25c, as applicable, of 40 CFR, Part 60, Appendix A, including any additional requirements as specified by 40 CFR Part 60, Subpart JJJJ.

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

d. The test(s) shall be conducted at a Maximum Source Operating Rate (MSOR), unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. MSOR is defined as the condition that is most likely to challenge the emission control measures with regards to meeting the applicable

emission standard(s). Although it generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test at the MSOR is justification for not accepting the test results as a demonstration of compliance.

e. Not later than 45 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, NWDO. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA's refusal to accept the results of the emission tests.

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

g. A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, NWDO within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, NWDO.

[OAC rule 3745-77-07(C)(1)]

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

a. <u>Emission Limitations</u>:

5.06 lbs NOx/hr; 22.16 tons NOx/yr

7.84 lbs CO/hr; 34.34 tons CO/yr

1.04 lbs VOC/hr; 4.56 tons VOC/yr

<u>Applicable Compliance Method</u>:

Compliance with the hourly mass emission limitations above shall be demonstrated based on the results of emission testing as required by the performance testing in condition f)(1).

The annual emission limitations were developed by multiplying the respective hourly emission limitations by the maximum operating schedule of 8760 hrs/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance with the annual limitations shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0115335]

b. Emission Limitations:

2.21 lbs SO2/hr; 9.68 tons SO2/yr

Applicable Compliance Method:

The hourly emission limitation was determined by multiplying the maximum methane generation rate of 325 dry standard cubic foot (dscf) per minute by an AP-42 emission factor of 113.314 lb/10^6dscf [Table 2.4-5, revised 11/98], then multiplying by 60 minutes/hour.

If required, compliance with the hourly emission limitation shall be determined in accordance with Methods 1-4 and 6 of 40 CFR, Part 60, Appendix A.

The annual emission limitation was determined by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hrs/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0115335]

c. Emission Limitations:

0.56lb PM10/hr; 2.47 tons PM10/yr

Applicable Compliance Method:

The hourly emission limitation was established by multiplying the SIP-approved emission limitation of 0.062 lb PE/mmBtu of actual heat input by the maximum heat input of 9.1 mmBtu/hr.

If required, compliance with the hourly emission limitation shall be determined in accordance with Methods 1-4 of 40 CFR, Part 60, Appendix A and Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M.

The annual emission limitation was determined by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hrs/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0115335]

d. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a six-minute average, except as specified by rule

Applicable Compliance Method:

If required, compliance with the visible PE limitations shall be demonstrated determined in accordance with OAC Rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI P0115335]

(3) If a non-certified engine is installed at the facility, and the engine was manufactured after July 1, 2007, the permittee shall conduct emission testing for this emissions unit in accordance with the following requirements:

a. The emissions testing shall be conducted within one year of engine startup and conduct subsequent performance testing every 8760 hrs of operation or 3 years, whichever comes first, thereafter to demonstrate compliance.

b. The emission testing shall be conducted to demonstrate compliance with the following limits:

i. The mass emission limitations of 5.06 lbs NOx/hr, 7.84 lbs CO/hr and 1.04 lbs VOC/hr.

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

i. Methods 1-4 of 40 CFR, Part 60, Appendix A;

ii. For NOx – Method 7 of 40 CFR, Part 60, Appendix A;

iii. For CO – Method 10 of 40 CFR, Part 60, Appendix A; and

iv. For VOC – Methods 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

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

d. The tests shall be conducted while this emissions unit is operating at its maximum capacity and meet the testing requirements in 40 CFR 60.4244, unless otherwise specified or approved by the Ohio EPA, Division of Air Pollution Control. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Division of Air Pollution Control. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the times and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's air agency's refusal to accept the results of the emissions tests.

e. Personnel from the Ohio EPA District Office's air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the

testing procedures provide a valid characterization of the emissions unit and/or the performance of the control equipment. A comprehensive written report on the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Division of Air Pollution Control within 60 days following completion of the tests.

[OAC rule 3745-77-07(C)(1) and PTI P0115335]

g) Miscellaneous Requirements

(1) The permittee shall incorporate "Good Engineering Practices" with regards to the design of the stack height on this emissions unit. For this permit determination, a stack with a minimum height that meets or exceeds the maximum height of any nearby hill or other structure shall meet the "Good Engineering Practice" requirements.

[OAC rule 3745-77-07(C)(1) and PTI P0115335]

(2) This emissions unit shall meet the applicable requirements pursuant to 40 CFR Part 60.4243 of Subpart JJJJ Part 60 - Compliance Requirements for Owners and Operators.

[OAC rule 3745-77-07(C)(1), PTI P0115335 and 40 CFR, Part 60, Subpart JJJJ]