



Environmental
Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

1/6/2011

Certified Mail

Mr. Michael Kotyk
Bellefontaine Gas Producers, LLC
425 South Main St., Suite 201
Ann Arbor, MI 48104

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0546015002
Permit Number: P0107266
Permit Type: Administrative Modification
County: Logan

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

Dear Permit Holder:

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

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

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

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Southwest District Office. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: U.S. EPA
Ohio EPA-SWDO; Indiana



FINAL

**Division of Air Pollution Control
Permit-to-Install
for
Bellefontaine Gas Producers, LLC**

Facility ID: 0546015002
Permit Number: P0107266
Permit Type: Administrative Modification
Issued: 1/6/2011
Effective: 1/6/2011



Division of Air Pollution Control
Permit-to-Install
for
Bellefontaine Gas Producers, LLC

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Authorization

Facility ID: 0546015002

Facility Description: Landfill Gas Power Plant

Application Number(s): M0001053

Permit Number: P0107266

Permit Description: Admin Mod to remove the Air to Fuel ratio monitoring and replace it with combustion temperature monitoring.

Permit Type: Administrative Modification

Permit Fee: \$0.00

Issue Date: 1/6/2011

Effective Date: 1/6/2011

This document constitutes issuance to:

Bellefontaine Gas Producers, LLC
2946 US Route 68 North
Bellefontaine, OH 43311

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

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

Ohio EPA DAPC, Southwest District Office
401 East Fifth Street
Dayton, OH 45402
(937)285-6357

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Chris Korleski
Director



Authorization (continued)

Permit Number: P0107266
Permit Description: Admin Mod to remove the Air to Fuel ratio monitoring and replace it with combustion temperature monitoring.

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

Table with 2 columns: Group Name, Generator Group. It lists three Emissions Unit IDs (P001, P002, P003) with their respective details like Company Equipment ID, Superseded Permit Number, and General Permit Category and Type.

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

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

2. Severability Clause

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

3. General Requirements

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

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

4. Monitoring and Related Record Keeping and Reporting Requirements

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

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

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Southwest District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

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

7. Best Available Technology

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

8. Air Pollution Nuisance

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

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Southwest District Office.

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

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

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

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

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

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

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

12. Permit-To-Operate Application

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

13. Construction Compliance Certification

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

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.

- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

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

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

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

16. Fees

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

17. Permit Transfers

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

18. Risk Management Plans

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

19. Title IV Provisions

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

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.

2. For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a) None.

3. 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.

C. Emissions Unit Terms and Conditions

1. Emissions Unit Group - Generator Group: P001, P002, P003,

EU ID	Operations, Property and/or Equipment Description
P001	Caterpillar G3520C P001
P002	Caterpillar G3520C P002
P003	Caterpillar G3520C P003

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., d)(2), d)(3), d)(4), d)(5), and e)(3), below.

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) (Supersedes Permit P0103690 issued 10/20/2008)	<p>Nitrogen oxides (NOx) emissions shall not exceed 0.60 grams per horse power-hour, 2.95 lbs per hour, and 12.92 tons per year.</p> <p>Carbon monoxide (CO) emissions shall not exceed 3.0 grams per horse power-hour, 14.8 lbs per hour, and 64.82 tons per year.</p> <p>See Sections b)(2)a., c)(1), (2), and (4), d)(5), (7), (9), and (10), e)(2), f)(1)a., and f)(2), below.</p>
b.	OAC rule 3745-31-05(D) (to avoid the applicability of 40 CFR Part 60 Subpart ZZZZ)	<p>The Hazardous Air Pollutant emissions shall not exceed 9.0 tons per rolling 12-month period for any individual HAP or 24.0 tons per rolling 12-month period for combined HAP's.</p> <p>See Sections b)(2)e., d)(1), and e)(2), below.</p>
c.	OAC rule 3745-31-05(A)(3)(a)(ii)	See b)(2)b, below.
d.	OAC paragraph 3745-31-05(A)(3), as effective 11/30/01	<p>Hourly emissions shall not exceed the following:</p> <p>1.15 pounds of sulfur dioxide (SO₂); 0.102 pounds of particulate emissions</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		(PE); and 1.0 grams of volatile organic compound (VOC) per horse power-hour. See Sections b)(2)f., f)(1)b., c., e., and f)(2), below.
e.	OAC rule 3745-17-11 (B)(5)(b)	0.062 lb of particulate emissions (PE) per mmBtu actual heat input See Sections f)(1)b, and f)(2), below.
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. See Sections d)(8), e)(5), and f)(1)d, below.
g.	OAC rule 3745-18-06(G)	0.5 lb Sulfur dioxide (SO ₂) per mmBtu actual heat input. See Section f)(1)c, and f)(2), below.
h.	OAC rule 3745-110-03(F)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
i.	40 CFR Part 60, Subpart JJJJ	Volatile organic compound (VOC) emissions shall not exceed 1.0 gram per horse power-hour. See Sections c)(6), d)(6), e)(4), and f)(2), below.
j.	40 CFR Part 60, Subpart WWW	See Sections b)(2)c., c)(3), c)(4), c)(5), and f)(2), below
k.	OAC rule 3745-114-01	Ohio Toxic Rule See Sections d)(2), d)(3), d)(4), d)(5), and e)(3), below.

(2) Additional Terms and Conditions

- a. The "Best Available Technology" (BAT) control requirement for this emissions unit has 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 BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the SO₂, VOC, and PM₁₀ emissions from this air contaminant source since the

uncontrolled potential to emit for SO₂, VOC, and PM₁₀ are each less than ten tons per year.

The PTE for SO₂ for this emissions unit is 5.10 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 VOC for this emissions unit is 3.64 tons per year and was determined based on a relationship between oxygen and hexane in the exhaust gas.

The PTE for PM₁₀ for this emissions unit is 4.47 tons per year and was determined by multiplying manufacturer's maximum heat input of 16.47 mm Btu/hr, particulate emission limit of OAC rule 3745-17-11 (B)(5)(b) (0.062 lb/mmBtu), a maximum operating schedule of 8,760 hr/yr and dividing by 2000 lbs/ton.

- c. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 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 the 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 the 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.
- d. This emissions unit receives landfill gas from the Cherokee Run Landfill which is subject to the control requirements in 40 CFR Part 60, Subpart WWW. Therefore control requirements under 40 CFR Part 60, Subpart WWW apply to this emissions unit. Emissions units P001, P002, and P003 shall meet the specifications for a control system on an active collection system as required in 40 CFR 60.752, included in this permit.
- e. The actual usage of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from all non-insignificant emissions units at this facility shall not exceed 9.0 TPY for any single HAP and 24.0 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.
- f. The hourly limitations of 1.15 pounds of sulfur dioxide (SO₂), 0.102 pounds of particulate emissions (PE), and 1.0 grams of volatile organic compound (VOC) per horse power-hour from this emissions unit is established to reflect the potential emissions from this emissions unit. Therefore, it is not necessary to establish record keeping and reporting requirements to ensure compliance with this limitation.

c) Operational Restrictions

- (1) This emissions unit shall be designed and maintained in such a manner to burn only landfill gas.
- (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.
- (3) All landfill gas supplied to this facility shall be employed as fuel in emissions units P001, P002, and/or P003. These emissions units shall be operated to comply with 40 CFR 60, Subpart WWW in accordance with the provisions of 40 CFR sections 60.752, 60.755, and 60.756, which are reflected in this permit. No uncontrolled landfill gas shall be vented to the ambient air.
- (4) Prior to landfill gas combusted in this emissions unit, the fuel shall be route to a treatment system. The treatment system shall ensure that materials such as moisture, particulate matter and other impurities, which have the potential to adversely affect the combustion, are removed from the fuel. The landfill gas treatment system shall be maintained and operated in such a manner as to not create additional regulated air pollution emissions.
- (5) All emissions from any atmospheric vent shall be vented to:
 - a. An open flare designed and operated in accordance with 40 CFR section 60.18, except as noted in 40 CFR section 60.754(e); or
 - b. introduced into the flame zone of a generator that will reduced the non-methane organic compound (NMOC) by at least 98 weight-percent or reduce the outlet NMOC concentration to less than 20 ppm by volume dry basis as hexane at 3 percent oxygen.
- (6) In accordance with 40 CFR section 60.4243(A)(2)(iii), the permittee shall conducted maintenance in a manner to minimize emissions.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each month for the HAP(s) emitted from emissions units; P001, P002, and P003:
 - a. the amount of landfill gas combusted, in millions of cubic feet, (mmcf);
 - b. the estimated concentration of highest individual HAP emitted, in pounds per million cubic feet, (at present Hydrogen Chloride (HCl) is estimated to have the highest concentration at 11.95 lbs/mmcf*);
 - c. the estimated highest individual HAP emissions, in tons per month, (the sum of (a) times (b) divided by 2000);

- d. the estimated concentration of combined HAP's emitted, in pounds per million cubic feet, (at present combined HAP's concentration is estimated to have the highest concentration at 13.81 lbs/mmcf*);
- e. the estimated combined HAP's emissions, in tons per month, (the sum of (a) times (d) divided by 2000);
- f. the updated rolling, 12-month summation of highest individual HAP emitted , in tons. This shall be the sum for the current month (c) and the preceding eleven calendar months; and
- g. the updated rolling, 12-month summation of combined HAP's emitted , in tons. This shall be the sum for the current month (e) and the preceding eleven calendar months.

* This concentration is based on the application data and may be modified in the future based on stack test results and/or as future emissions data become available.

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

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

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

Toxic Contaminant: Hydrogen chloride (HCl)

TLV (mg/m³): 3.0

Maximum Hourly Emission Rate (lbs/hr): 0.64

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.017

MAGLC (ug/m³): 300

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

(ORC 3704.03(F)(3)(c) and F(4)), OAC rule 3745-114-01 Option A, Engineering Guide #70)

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

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

concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01 Option A, Engineering Guide #70)

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

(ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01 Option A, Engineering Guide #70)

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

(ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01 Option A, Engineering Guide #70)

- (6) In accordance with 40 CFR section 60.4243(A)(2)(iii), the permittee shall maintain the following records:
- a. All notifications submitted to comply with this subpart and all documentation supporting any notification.
 - b. Maintenance conducted on the engine.
 - c. Documentation that demonstrates that each engine will meet the emission standards and information as required in 40 CFR parts 90 and 1048.

- (7) The permittee shall maintain records demonstrating any occurrence when landfill gas is vented directly to the ambient air. These records shall include the following:
 - a. The date and time of the occurrence;
 - b. The duration of the occurrence, in hours;
 - c. The cause of the occurrence; and
 - d. The proactive and corrective steps taken to minimize the occurrence and to prevent future occurrences.
 - (8) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE from the stack(s) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operational log. If visible emissions are observed, the permittee shall also note the following in the operational log;
 - a. The color of the emissions;
 - b. The total duration of any visible emission incident; and
 - c. Any corrective actions taken to eliminate the visible emissions.
 - (9) The permittee shall properly install, calibrate and maintain an engine combustion chamber temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of +/- 1 percent of the temperature being measured expressed in degrees Fahrenheit or +/- 30.0 degrees Fahrenheit, whichever is greater. When demonstrating compliance with 40 CFR 60.752(b)(2)(iii)(B), landfill gas control, the temperatures shall be monitored at all times.
 - (10) When demonstrating compliance with 40 CFR 60.752(b)(2)(iii)(B), landfill gas control, the permittee shall collect and record each day all 3-hour blocks of time during which the average combustion chamber temperature within the internal combustion engine was less than the allowable minimum operating temperature as established during the most recent compliance test.
- e) Reporting Requirements
- (1) Any breakdown or malfunction resulting in the emission of raw and/or treated landfill gas to the atmosphere shall be reported to the Southwest 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.
 - (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. the facility-wide rolling, 12-month individual HAP emission exceeds 9.0 tons, from all materials employed at this facility;

- b. the facility-wide rolling, 12-month combined HAP emission exceeds 24.0 tons, from all materials employed at this facility; and
- c. the established acceptable combustion temperature range.

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

(OAC rule 3745-15-03(B)(1)(a) and OAC rule 3745-15-03(C) and OAC rule 3745-77-07(C)(1))

- (3) The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

(ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01 Option A, Engineering Guide #70)

- (4) The permittee shall submit semiannual written reports that:
 - a. Identify all days during which any visible PE were observed from any stack serving this emissions unit;
 - b. Identify all days during which any visible fugitive PE were observed from any egress point (i.e., building windows, doors, roof monitors, etc...) serving this emissions unit; and
 - c. Describe the corrective actions taken to eliminate the visible PE.
 - d. When demonstrating compliance with 40 CFR 60.752(b)(2)(iii)(B), landfill gas control, identify the date(s) and duration of each 3-hour block of time when the average temperature within the internal combustion engine did not meet the minimum temperature requirements.

These reports shall be submitted to the Ohio EPA, Southwest District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:
0.6 grams of NOx/hp-hr, 12.92 tons NOx/yr
14.8 lbs CO/hr, 64.82 tons CO/yr

Applicable Compliance Method:

Compliance with the hourly mass emission limitations shall be demonstrated by the performance testing required in condition f)(2). The annual emission limitations were developed by multiplying the respective hourly emission limitations by the maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitations, compliance with the annual limitations will be assumed.

b. Emission Limitation:

0.102 pounds of PE per hour; and

0.062 pounds of PE/mmBtu actual heat input.

The above hourly limitation is based on the following equation:

$$\text{HER} = \text{M Btu} \times \text{Ef}$$

Where:

HER = Hourly emission rate, in pounds per hour;

M Bbtu = Maximum BTU heat input, in mmBtu per hour;

Ef = Emission factor, in pounds of PE emitted per mmBtu heat input.

Applicable Compliance Method:

The potential to emit* for this emissions unit is 0.062 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 the manufacturer's published maximum heat input specifications of 16.47 mmBtu/hr and the particulate emission limit of OAC rule 3745-17-11(B)(5)(b).

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

c. Emission Limitation:

1.15 pounds of SO₂ per hour; and

0.5 lb SO₂/mmBtu actual heat input.

The above hourly limitation is based on the following equation:

$$\text{HER} = \text{M Btu} \times \text{Ef}$$

Where:

HER = Hourly emission rate, in pounds per hour;

M Btu = Maximum BTU heat input, in mmBtu per hour;

Ef = Emission factor, in pounds of SO₂ emitted per mmBtu heat input.

Applicable Compliance Method:

The potential to emit* for this emissions unit is 0.07 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.

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, 40 CFR Part 60, Method 9, with opacity readings taken from the stack.

e. Emission Limitation:

Volatile organic compound (VOC) emissions shall not exceed 1.0 grams per horse power-hour.

Applicable Compliance Method:

Compliance with the hourly mass emission limitations shall be demonstrated by the performance testing required in condition f)(2).

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 through 4 and Method 18, 25, 25a or 25c, as applicable, of 40 CFR, Part 60, Appendix A.

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

- a. The emissions testing shall be conducted within 12 months prior to the expiration of this facility's initial Title V permit or within 6 years after the issuance date of this permit, whichever comes first.

- b. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load unless otherwise specified or approved by the Ohio EPA, SWDO.
- c. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for; NO_x, CO, VOC, PE, and SO₂.
- d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:
 - i. 0.60 grams per horse power-hour of NO_x, Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A;
 - ii. 3.0 grams per horse power-hour of CO, Methods 1 through 4 and 10 of 40 CFR, Part 60, Appendix A;
 - iii. 1.0 grams per horse power-hour of VOC, Methods 1 through 4 and Method 18, 25, 25a or 25c, as applicable, of 40 CFR, Part 60, Appendix A,
 - iv. 0.062 lb of particulate emissions (PE) per mmBtu actual heat input, Methods 1 - 5 of 40 CFR Part 60, Appendix A;
 - v. 0.5 lb SO₂/mmBtu actual heat input, Methods 1 – 4, and 6 of 40 CFR Part 60, Appendix A; and
 - vi. including any additional requirements as specified by 40 CFR Part 60, Subpart JJJJ and/or Subpart WWW.

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

- 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, SWDO. 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.

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.

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, SWDO 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 SWDO.

- (3) In accordance with 40 CFR section 60.4243(A)(2)(iii), the permittee shall conducted initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

In accordance with 40 CFR section 60.4245(d), the permittee shall submit a copy of each performance test conducted under 40 CFR section 60.4244 within 60 days after the test has been completed.

g) Miscellaneous Requirements

- (1) None.