



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

8/2/2013

Scott Herman  
USA Waste Geneva Landfill, Inc.  
4339 Tuttle Road  
Geneva, OH 44041

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
Facility ID: 0204030303  
Permit Number: P0115085  
Permit Type: OAC Chapter 3745-31 Modification  
County: Ashtabula

Certified Mail

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

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) 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. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

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

**How to appeal this permit**

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

Environmental Review Appeals Commission  
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](http://www.ohioairquality.org/clean_air)

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/dapc/pemitsurvey.aspx](http://www.epa.ohio.gov/dapc/pemitsurvey.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](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA  
Ohio EPA-NEDO; Pennsylvania; Canada



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install  
for  
USA Waste Geneva Landfill, Inc.**

Facility ID: 0204030303  
Permit Number: P0115085  
Permit Type: OAC Chapter 3745-31 Modification  
Issued: 8/2/2013  
Effective: 8/2/2013





**Division of Air Pollution Control**  
**Permit-to-Install**  
for  
USA Waste Geneva Landfill, Inc.

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**Final Permit-to-Install**  
USA Waste Geneva Landfill, Inc.  
**Permit Number:** P0115085  
**Facility ID:** 0204030303  
**Effective Date:** 8/2/2013

## Authorization

Facility ID: 0204030303  
Facility Description: Municipal Solid Waste Landfill  
Application Number(s): A0048239, A0048290  
Permit Number: P0115085  
Permit Description: Chapter 31 modification to increase the sulfur emissions from six existing landfill gas-fired combustion turbines  
Permit Type: OAC Chapter 3745-31 Modification  
Permit Fee: \$150.00  
Issue Date: 8/2/2013  
Effective Date: 8/2/2013

This document constitutes issuance to:

USA Waste Geneva Landfill, Inc.  
4339 Tuttle Road  
Geneva, OH 44041

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

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

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

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

A handwritten signature in black ink, appearing to read "Scott J. Nally".

Scott J. Nally  
Director



## Authorization (continued)

Permit Number: P0115085  
Permit Description: Chapter 31 modification to increase the sulfur emissions from six existing landfill gas-fired combustion turbines

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

### Group Name: NSPS engines

|                                  |                |
|----------------------------------|----------------|
| <b>Emissions Unit ID:</b>        | <b>P003</b>    |
| Company Equipment ID:            | EG3            |
| Superseded Permit Number:        | P0106559       |
| General Permit Category andType: | Not Applicable |
| <b>Emissions Unit ID:</b>        | <b>P004</b>    |
| Company Equipment ID:            | EG4            |
| Superseded Permit Number:        | P0106559       |
| General Permit Category andType: | Not Applicable |
| <b>Emissions Unit ID:</b>        | <b>P005</b>    |
| Company Equipment ID:            | EG5            |
| Superseded Permit Number:        | P0106559       |
| General Permit Category andType: | Not Applicable |
| <b>Emissions Unit ID:</b>        | <b>P006</b>    |
| Company Equipment ID:            | EG6            |
| Superseded Permit Number:        | P0106559       |
| General Permit Category andType: | Not Applicable |

### Group Name: Non NSPS engines

|                                  |                |
|----------------------------------|----------------|
| <b>Emissions Unit ID:</b>        | <b>P001</b>    |
| Company Equipment ID:            | EG1            |
| Superseded Permit Number:        | P0111476       |
| General Permit Category andType: | Not Applicable |
| <b>Emissions Unit ID:</b>        | <b>P002</b>    |
| Company Equipment ID:            | EG2            |
| Superseded Permit Number:        | P0111476       |
| General Permit Category andType: | Not Applicable |



**Final Permit-to-Install**  
USA Waste Geneva Landfill, Inc.  
**Permit Number:** P0115085  
**Facility ID:** 0204030303  
**Effective Date:** 8/2/2013

## **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, Northeast District Office.



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

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

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

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

## **6. Compliance Requirements**

- a) 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, Northeast District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

## **7. Best Available Technology**

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

## **8. Air Pollution Nuisance**

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

## **9. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have



been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (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.



**Final Permit-to-Install**  
USA Waste Geneva Landfill, Inc.  
**Permit Number:** P0115085  
**Facility ID:** 0204030303  
**Effective Date:** 8/2/2013

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



**Final Permit-to-Install**  
USA Waste Geneva Landfill, Inc.  
**Permit Number:** P0115085  
**Facility ID:** 0204030303  
**Effective Date:** 8/2/2013

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.



**Final Permit-to-Install**  
USA Waste Geneva Landfill, Inc.  
**Permit Number:** P0115085  
**Facility ID:** 0204030303  
**Effective Date:** 8/2/2013

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



**1. Emissions Unit Group -NSPS engines: P003,P004,P005,P006,**

| EU ID | Operations, Property and/or Equipment Description   |
|-------|---|
| P003  | Caterpillar 3516 Reciprocating Internal Combustion Engine (1,148 bhp) operating on landfill gas. Engine #3. |
| P004  | Caterpillar 3516 Reciprocating Internal Combustion Engine (1,148 bhp) operating on landfill gas. Engine #4. |
| P005  | Caterpillar 3516 Reciprocating Internal Combustion Engine (1,148 bhp) operating on landfill gas. Engine #5. |
| P006  | Caterpillar 3516 Reciprocating Internal Combustion Engine (1,148 bhp) operating on landfill gas. Engine #6. |

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

(1) d)(8)

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)<br>OAC rule 3745-31-05(A)(3)        | Visible particulate emissions shall not exceed 10% opacity as a 6-minute average.<br><br>Carbon monoxide (CO) emissions shall not exceed 6.85 pounds per hour.<br><br>Nitrogen oxide (NO <sub>x</sub> ) emissions shall not exceed 3.67 pounds per hour.<br><br>See b)(2)c.   |
| b. | OAC rule 3745-31-05(A)(3), as effective 11/30/2001 | Particulate emissions (PE) and particulate less than 10 microns in diameter (PM <sub>10</sub> ) emissions shall not exceed 0.52 pound per hour and 2.27 tons per year.<br><br>Sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 1.0 pound per hour and 4.36 tons per year.<br><br>Volatile organic compound (VOC) emissions shall not exceed 0.55 pound per hour and |



|    | Applicable Rules/Requirements   | Applicable Emissions Limitations/Control Measures   |
|----|---|---|
|    |   | 2.41 tons per year.<br><br>See b)(2)a.  |
| c. | OAC rule 3745-31-05(A)(3), as effective 12/1/06   | See b)(2)b.   |
| d. | OAC rule 3745-17-11(B)(5)   | Particulate emissions (PE) shall not exceed 0.062 pound per million Btu of actual heat input.   |
| e. | OAC rule 3745-17-07(A)  | Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.   |
| f. | OAC rule 3745-18-06   | Sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 0.5 pound per million Btu of actual heat input.  |
| g. | 40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230-4248)<br><br>[In accordance with 40 CFR 60.4230(a)(4)(ii), this emissions unit is a landfill gas-fired lean burn stationary spark ignition (SI) internal combustion engine (ICE) constructed after June 12, 2006 and manufactured after January 1, 2008 with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP.] | Emission standards for landfill gas SI-ICE manufactured after January 1, 2008 as specified in Table 1 of 40 CFR Part 60, Subpart JJJJ.<br><br>NO <sub>x</sub> : 3.0 grams per horsepower-hour or 220 ppmvd at 15% oxygen.<br><br>CO: 5.0 grams per horsepower-hour or 610 ppmvd at 15% oxygen.<br><br>VOC: 1.0 gram per horsepower-hour or 80 ppmvd at 15% oxygen<br><br>The NO <sub>x</sub> , CO and VOC emission limitations established in this subpart are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3). |
| h. | 40 CFR Part 63, Subpart ZZZZ  | See b)(2)d.   |
| i. | 40CFRPart60, SubpartWWW   | See b)(2)f.   |

(2) Additional Terms and Conditions

- a. 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 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.

- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE/PM<sub>10</sub>, SO<sub>2</sub> and VOC emissions from this air contaminant source since the uncontrolled potential to emit for PE/PM<sub>10</sub>, SO<sub>2</sub> and VOC are less than 10 tons per year.

- c. The internal combustion engine shall operate using lean burn technology.
- d. In accordance with 40 CFR Part 63.6590(c), new stationary RICE located at an area source must meet the requirements of this subpart by meeting the requirements of 40 CFR Part 60, Subpart JJJJ.
- e. The permittee shall comply with the applicable requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

|            |                         |
|------------|-------------------------|
| 60.4236(b) | Installation deadlines  |
| 60.4243(b) | Compliance Requirements |

- f. The permittee has committed to treating all landfill gas prior to processing through this emissions unit in accordance with the requirements specified in 40 CFR 60.752(b)(2)(iii)(C).

c) Operational Restrictions

- (1) This emissions unit shall burn only treated landfill gas.
- (2) The permittee shall install, 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) The flow rate to the internal combustion engines shall not exceed 1998 scfm of treated landfill gas.
- (4) Collected landfill gas shall be compressed, dewatered and filtered to satisfy the requirements for "treated" landfill gas. The owner or operator shall operate and maintain the treatment system (compressor, dewatering and filtering systems) in accordance with the manufacturer's recommendations.
- (5) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart JJJJ, including the following sections:



|            |   |
|------------|---|
| 60.4234    | Duration of compliance with the emissions standards |
| 60.4243(b) | Maintenance Requirements                            |
| 60.4243(g) | Air-to-Fuel (ATR) controllers                       |

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving each emissions unit. The presence or absence of any visible emissions shall be noted in an operations log for each unit. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. the cause of the visible emissions;
  - c. the total duration of any visible emissions incident; and
  - d. any corrective actions taken to eliminate the visible emissions.
- (2) The permittee shall monitor the following parameters of the landfill gas treatment system:
  - a. inlet and outlet pressure of the landfill gas compressor; and
  - b. temperature differential across the heat exchanger.
- (3) The permittee shall install, calibrate and maintain a device that monitors and records gas flow to the internal combustion engines, as a group. The gas flow rate measuring device shall record the flow to the control device at least every 15 minutes.
- (4) The permittee shall monitor and record the downtime of each engine, individually.
- (5) The permittee shall collect and record each day all times the maximum allowable landfill gas flow rate to the internal combustion engines was exceeded.
- (6) The permittee shall record each day when a fuel other than treated landfill gas was burned in this emissions unit.
- (7) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart JJJJ, including the following sections:



|                   |   |
|-------------------|---|
| 60.4243(b)(2)(ii) | Keeping a maintenance plan and records of conducted maintenance |
| 60.4245(a)        | Records required  |

(8) Modeling to demonstrate compliance with, the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary because the emissions units 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 PTI 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.

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that:

- a. identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
- b. describe any corrective actions taken to eliminate the visible particulate emissions; and
- c. identify the date(s) and duration the gas flow rate to the internal combustion engines exceeded the maximum gas flow rate of 1998 scfm of treated LFG.

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

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

(3) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart JJJJ, including the following sections:

|            |                         |
|------------|-------------------------|
| 60.4245(c) | Initial Notification    |
| 60.4245(d) | Performance Test Report |

f) Testing Requirements

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



a. Emission Limitation:

Visible particulate emissions shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

b. Emission Limitation:

CO emissions shall not exceed 6.85 pounds per hour.

Applicable Compliance Method:

Compliance with the CO hourly emission and technical limitations shall be demonstrated in accordance with the performance test requirement specified in f)(3).

c. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 3.67 pounds per hour.

Applicable Compliance Method:

Compliance with the NO<sub>x</sub> hourly emission limitations shall be demonstrated in accordance with the performance test requirement specified in f)(3).

d. Emission Limitation:

PE/PM<sub>10</sub> emissions shall not exceed 0.52 pound per hour and 2.27 tons per year.

Applicable Compliance Method:

Compliance with the PE/PM<sub>10</sub> hourly emission limitations shall be determined in accordance with the following equation:

$$E = EF \times \text{Flow} \times MC \times 60$$

where:

E = emission rate of PE/PM<sub>10</sub>, pounds per hour;  
EF = emission factor from AP-42, Section 2.4, Municipal Solid Waste Landfills, Table 2.4-4, version 11/1998, 48 lb PM/mmdcsf CH<sub>4</sub>;  
Flow = average flow rate of LFG into engine, cfm;  
MC = average methane content of LFG; and  
60 = conversion factor, minutes per hour.



The tpy emission limitation was developed by multiplying the short-term allowable PE/PM<sub>10</sub> emission limitation (0.52 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

e. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 1.0 pound per hour and 4.36 tons per year.

Applicable Compliance Method:

Compliance with the SO<sub>2</sub> hourly emission limitation shall be demonstrated by using the following equation:

$$E = (EF \times MW \times \text{flow}) / (24.45 \times 35.31 \times 1000 \times 454)$$

where:

E = emission rate, pounds per hour;

EF = SO<sub>2</sub> contained in the LFG (per facility 300 ppm), ppm;

MW = molecular weight of SO<sub>2</sub>, 64.06;

flow = flow of LFG to engine per hour, ft<sup>3</sup> per hour;

24.45 = conversion factor from ppm to mg/m<sup>3</sup>, (mg/m<sup>3</sup> = ppm x MW/24.45);

35.31 = conversion factor, ft<sup>3</sup> per m<sup>3</sup>;

1000 = conversion factor, mg per gram; and

454 = conversion factor, grams per pound.

The tpy emission limitation was developed by multiplying the short-term allowable SO<sub>2</sub> emission limitation (1.0 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

f. Emission Limitation:

VOC emissions shall not exceed 0.55 pound per hour and 2.41 tons per year.

Applicable Compliance Method:

Compliance with the VOC hourly emission and technical limitations shall be demonstrated in accordance with the performance test requirement specified in f)(3).

The tpy emission limitation was developed by multiplying the short-term allowable VOC emission limitation (0.55 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.



g. Emission Limitation:

PE shall not exceed 0.062 pound per million Btu of actual heat input.

Applicable Compliance Method:

If required, compliance with the PE pound per million Btu of actual heat input limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 5.

h. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided in the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

i. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 0.5 pound per million Btu of actual heat input.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6.

- (2) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart JJJJ, including the following sections:

|               |  |
|---------------|--|
| 60.4243(b)(1) | Certified engines - Compliance demonstration     |
| 60.4243(b)(2) | Non-certified engines - Compliance demonstration |
| 60.4244       | Test methods and procedures                      |

- (3) 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 within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for NO<sub>x</sub>, CO and VOC.



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

for NO<sub>x</sub> - Method 7 or 7E of 40 CFR Part 60, Appendix A;  
for CO - Method 10 of 40 CFR Part 60, Appendix A; and  
for VOC - Method 18 or Method 25A of 40 CFR Part 60, Appendix A or Method 320 of 40 CFR Part 63.

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

- d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the Ohio EPA Northeast District Office. Although this 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 under these conditions is justification for not accepting the test results as a demonstration of compliance.
- 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 Northeast District Office. 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 test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA Northeast District Office 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 test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

g) Miscellaneous Requirements

- (1) None.



**2. Emissions Unit Group -Non NSPS engines: P001,P002,**

| EU ID | Operations, Property and/or Equipment Description   |
|-------|---|
| P001  | Caterpillar 3516 Reciprocating Internal Combustion Engine (1,148 bhp) operating on landfill gas. Engine #1. |
| P002  | Caterpillar 3516 Reciprocating Internal Combustion Engine (1,148 bhp) operating on landfill gas. Engine #2. |

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

(1) d)(7)

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)<br>OAC rule 3745-31-05(A)(3)        | Visible particulate emissions shall not exceed 10% opacity as a 6-minute average.<br><br>Carbon monoxide (CO) emissions shall not exceed 6.85 pounds per hour.<br><br>Nitrogen oxide (NO <sub>x</sub> ) emissions shall not exceed 3.67 pounds per hour.<br><br>See b)(2)c.  |
| b. | OAC rule 3745-31-05(A)(3), as effective 11/30/2001 | Particulate emissions (PE) and particulate less than 10 microns in diameter (PM <sub>10</sub> ) emissions shall not exceed 0.52 pound per hour and 2.27 tons per year.<br><br>Sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 1.0 pound per hour and 4.36 tons per year.<br><br>Volatile organic compound (VOC) emissions shall not exceed 0.55 pound per hour and 2.41 tons per year.<br><br>See b)(2)a. |
| c. | OAC rule 3745-31-05(A)(3), as                      | See b)(2)b.  |



|    | Applicable Rules/Requirements                      | Applicable Emissions Limitations/Control Measures   |
|----|--|---|
|    | effective 12/1/06                                  |   |
| d. | OAC rule 3745-17-11(B)(5)                          | Particulate emissions (PE) shall not exceed 0.062 pound per million Btu of actual heat input.   |
| e. | OAC rule 3745-17-07(A)                             | Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.   |
| f. | OAC rule 3745-18-06                                | Sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 0.5 pound per million Btu of actual heat input.  |
| g. | 40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230-4248) | In accordance with 40 CFR 60.4230(a)(4)(ii), this emissions unit is a landfill gas fired lean burn stationary spark ignition (SI) internal combustion engine (ICE) constructed before June 12, 2006 and manufactured before January 1, 2008 with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP. Therefore, until this emissions unit is modified or reconstructed, the requirements of Subpart JJJJ do not apply. |
| h. | 40CFRPart60, SubpartWWW                            | Seeb)(2)d.  |

(2) Additional Terms and Conditions

- a. 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 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.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE/PM<sub>10</sub>, SO<sub>2</sub> and VOC emissions from this air contaminant source since the uncontrolled potential to emit for PE/PM<sub>10</sub>, SO<sub>2</sub> and VOC are less than 10 tons per year.



- c. The internal combustion engine shall operate using lean burn technology.
- d. The permittee has committed to treating all landfill gas prior to processing through this emissions unit in accordance with the requirements specified in 40 CFR 60.752(b)(2)(iii)(C).

c) Operational Restrictions

- (1) This emissions unit shall burn only treated landfill gas.
- (2) The permittee shall install, 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) The flow rate to the internal combustion engines shall not exceed 1998 scfm of treated landfill gas.
- (4) Collected landfill gas shall be compressed, dewatered and filtered to satisfy the requirements for "treated" landfill gas. The owner or operator shall operate and maintain the treatment system (compressor, dewatering and filtering systems) in accordance with the manufacturer's recommendations.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving each emissions unit. The presence or absence of any visible emissions shall be noted in an operations log for each unit. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. the cause of the visible emissions;
  - c. the total duration of any visible emissions incident; and
  - d. any corrective actions taken to eliminate the visible emissions.
- (2) The permittee shall monitor the following parameters of the landfill gas treatment system:
  - a. inlet and outlet pressure of the landfill gas compressor; and
  - b. temperature differential across the heat exchanger.
- (3) The permittee shall install, calibrate, and maintain a device that monitors and records gas flow to the internal combustion engines, as a group. The gas flow rate measuring device shall record the flow to the control device at least every 15 minutes.



- (4) The permittee shall monitor and record the downtime of each engine, individually.
- (5) The permittee shall collect and record each day all times the maximum allowable landfill gas flow rate to the internal combustion engines was exceeded.
- (6) The permittee shall record each day when a fuel other than treated landfill gas was burned in this emissions unit.
- (7) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions units 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 PTI 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.

e) Reporting Requirements

- (1) The permittee shall submit semiannual written reports that:
  - a. identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
  - b. describe any corrective actions taken to eliminate the visible particulate emissions; and
  - c. identify the date(s) and duration the gas flow rate to the internal combustion engines exceeded the maximum gas flow rate of 1998 scfm of treated LFG.

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

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

f) Testing Requirements

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

Visible particulate emissions shall not exceed 10% opacity as a 6-minute average.



Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

b. Emission Limitation:

CO emissions shall not exceed 6.85 pounds per hour.

Applicable Compliance Method:

Compliance with the CO hourly emission and technical limitations shall be demonstrated in accordance with the performance test requirement specified in f)(2).

c. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 3.67 pounds per hour.

Applicable Compliance Method:

Compliance with the NO<sub>x</sub> hourly emission limitations shall be demonstrated in accordance with the performance test requirement specified in f)(2).

d. Emission Limitation:

PE/PM<sub>10</sub> emissions shall not exceed 0.52 pound per hour and 2.27 tons per year.

Applicable Compliance Method:

Compliance with the PE/PM<sub>10</sub> hourly emission limitation shall be demonstrated in accordance with the following equation:

$$E = EF \times \text{Flow} \times MC \times 60$$

where:

E = emission rate of PE/PM<sub>10</sub>, pounds per hour;  
EF = emission factor from AP-42, Section 2.4, Municipal Solid Waste Landfills, Table 2.4-4, version 11/1998, 48 lb PM/mmdcsf CH<sub>4</sub>;  
Flow = average flow rate of LFG into engine, cfm;  
MC = average methane content of LFG; and  
60 = conversion factor, minutes per hour.

The tpy emission limitation was developed by multiplying the short-term allowable PE/PM<sub>10</sub> emission limitation (0.52 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.



e. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 1.0 pound per hour and 4.36 tons per year.

Applicable Compliance Method:

Compliance with the SO<sub>2</sub> hourly emission limitation shall be demonstrated by using the following equation:

$$E = (EF \times MW \times \text{flow}) / (24.45 \times 35.31 \times 1000 \times 454)$$

where:

E = emission rate, pounds per hour;

EF = SO<sub>2</sub> contained in the LFG (per facility 300 ppm), ppm;

MW = molecular weight of SO<sub>2</sub>, 64.06;

flow = flow of LFG to engine per hour, ft<sup>3</sup> per hour;

24.45 = conversion factor from ppm to mg/m<sup>3</sup>, (mg/m<sup>3</sup> = ppm x MW/24.45);

35.31 = conversion factor, ft<sup>3</sup> per m<sup>3</sup>;

1000 = conversion factor, mg per gram; and

454 = conversion factor, grams per pound.

The tpy emission limitation was developed by multiplying the short-term allowable SO<sub>2</sub> emission limitation (1.0 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

f. Emission Limitation:

VOC emissions shall not exceed 0.55 pound per hour and 2.41 tons per year.

Applicable Compliance Method:

Compliance with the VOC hourly emission and technical limitations shall be demonstrated in accordance with the performance test requirement specified in f)(2).

The tpy emission limitation was developed by multiplying the short-term allowable VOC emission limitation (0.55 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

g. Emission Limitation:

PE shall not exceed 0.062 pound per million Btu of actual heat input.



Applicable Compliance Method:

If required, compliance with the PE pound per million Btu of actual heat input limitation shall be demonstrated based upon an emission test performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 5.

h. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

i. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 0.5 pound per million Btu of actual heat input.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon an emission test performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6.

(2) 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 within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for NO<sub>x</sub>, CO and VOC.
- c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

for NO<sub>x</sub> - Method 7 or 7E of 40 CFR Part 60, Appendix A;  
for CO - Method 10 of 40 CFR Part 60, Appendix A; and  
for VOC - Method 18 or Method 25A of 40 CFR Part 60, Appendix A or Method 320 of 40 CFR Part 63.

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

- d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable



emissions limits and/or control requirements, unless otherwise specified or approved by the Ohio EPA Northeast District Office. Although this 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 under these conditions is justification for not accepting the test results as a demonstration of compliance.

- 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 Northeast District Office. 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 test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA Northeast District Office 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 test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

g) Miscellaneous Requirements

- (1) None.