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

3/14/2013

Certified Mail

Mr. Jason Pennypacker
Lorain County LFG Power Station
3322 West End Avenue, Suite 115
Nashville, TN 37203

Facility ID: 0247100968
Permit Number: P0111561
County: Lorain

RE: DRAFT AIR POLLUTION TITLE V PERMIT
Permit Type: Significant Permit Modification

Dear Permit Holder:

A draft of the OAC Chapter 3745-77 Title V permit for the referenced facility has been issued. The purpose of this draft is to solicit public comments. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, The Chronicle Telegram. A copy of the public notice, the Statement of Basis, and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified if a public hearing is scheduled. A decision on processing the Title V permit will be made after consideration of comments received and oral testimony if a public hearing is conducted. You will then be provided with a Preliminary Proposed Title V permit and another opportunity to comment prior to the 45-day Proposed Title V permit submittal to U.S. EPA Region 5. The permit will be issued final after U.S. EPA review is completed and no objections to the final issuance have been received. If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171.

Sincerely,

Michael W. Ahern

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

Cc: U.S. EPA Region 5 - *Via E-Mail Notification*
Ohio EPA-NEDO

PUBLIC NOTICE
3/14/2013 Issuance of Draft Air Pollution Title V Permit

Lorain County LFG Power Station
43502 Oberlin-Elyria Road,
Oberlin, OH 44074
Lorain County
FACILITY DESC.: Other Electric Power Generation
PERMIT #: P0111561
PERMIT TYPE: Significant Permit Modification
PERMIT DESC: Landfill gas Power generation station

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: http://epa.ohio.gov/dapc/permitsonline.aspx by entering the permit # or: Erik Bewley, Ohio EPA DAPC, Northeast District Office, 2110 East Aurora Road, Twinsburg, OH 44087. Ph: (330)425-9171

Statement of Basis For Air Pollution Title V Permit

Facility ID:	0247100968
Facility Name:	Lorain County LFG Power Station
Facility Description:	Landfill Gas Power Generation Station
Facility Address:	43502 Oberlin-Elyria Road, Oberlin, OH 44074
Permit #:	P0111561, Significant Permit Modification

This facility is subject to Title V because it is major for:

☐ Lead ☐ Sulfur Dioxide X Carbon Monoxide ☐ Volatile Organic Compounds X Nitrogen Oxides
☐ Particulate Matter ≤ 10 microns ☐ Single Hazardous Air Pollutant ☐ Combined Hazardous Air Pollutants
☐ Maximum Available Control Technology Standard(s) ☐ GHG ☐ Title IV

A. Standard Terms and Conditions

Has each insignificant emissions unit been reviewed to confirm it meets the definition in OAC rule 3745-77-01(U)?	Yes
Were there any "common control" issues associated with this facility? If yes, provide a summary of those issues and explain how the DAPC decided to resolve them.	No
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a minor permit modification per OAC rule 3745-77-08(C)(1)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a significant permit modification per OAC rule 3745-77-08(C)(3)	P010 through P019 - 2,233 hp Caterpillar engines and P020 - 6 mmBtu/hr Thermal Oxidizer (all permitted under P0107089). These emissions units are being added to the Title V Permit.

Please identify the affected unit(s)and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a reopening per OAC rule 3745-77-08(D)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document resulting from a renewal per OAC rule 3745-77-08(E)	N/A
Please identify the affected unit(s) and pollutant(s) for which a Compliance Assurance Monitoring (CAM) Plan is required per 40 CFR 64. Provide more emissions unit specific detail in Section C.	N/A

B. Facility-Wide Terms and Conditions

Term and Condition (paragraph)	Basis		Comments
	SIP (3745-)	Other	
2.b)(1); 2.c)(1); 2.d)(1)	No	Yes	Other - 40 CFR, Part 63, Subpart AAAA

C. Emissions Unit Terms and Conditions

Key:
EU = emissions unit ID
ND = negative declaration (i.e., term that indicates that a particular rule(s) is (are) not applicable to a specific emissions unit)
OR = operational restriction
M = monitoring requirements
ENF = did noncompliance issues drive the monitoring requirements?
R = record keeping requirements
Rp = reporting requirements
ET = emission testing requirements (not including compliance method terms)
St = streamlining term used to replace a PTI monitoring, record keeping, or reporting requirement with an equivalent or more stringent requirement
Misc = miscellaneous requirements

EU(s)	Limitation	Basis		ND	OR	M	ENF	R	Rp	ET	St	Misc	Comments
		SIP (3745-)	Other										
P001 - P008	VE not to exceed 10% opacity as a 6-minute average	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P001 - P008	PE shall not exceed 0.87 #/hr; 3.8 TPY	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P001 - P008	PM_{10} shall not exceed 0.37 #/hr; 1.63 TPY	No	Yes	No	No	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P001 - P008	SO_2 shall not exceed 0.2 #/hr; 0.9 TPY	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P001 - P008	VOC shall not exceed 0.68 #/hr; 3.0 TPY	No	Yes	No	No	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P001 - P008	HCl shall not exceed 0.28 #/hr; 1.24 TPY	No	Yes	No	No	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P001 - P008	CO shall not exceed 9.76 #/hr; 42.75 TPY	No	Yes	No	No	Yes	No	Yes	Yes	Yes	No	No	Other - 40 CFR, Part 52 OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm.

P001 - P008	NO_X shall not exceed 5.88 #/hr; 25.8 TPY	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	No	Other - 40 CFR, Part 52, Section 52.21 OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm.
P001 - P008	Collect and sell or reduce NMOC emissions by 98 wt % or to less than 20 ppm by volume, at 3% oxygen	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm.
P001 - P008	PM shall not exceed 0.062 lb/mmBtu	17-11	No	No	No	Yes	No	Yes	Yes	No	Yes	No	OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P001 - P008	Visible emissions shall not exceed 20% opacity	17-07	No	Yes	No	Yes	No	Yes	Yes	No	Yes	No	OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P001 - P008	SO_2 emissions shall not exceed 0.5 lb/mmBtu	18-06	No	Yes	No	Yes	No	Yes	Yes	No	Yes	No	OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P009	NO_X emissions not to exceed 0.41 lb/hr and 1.8 TPY	No	Yes	No	Yes	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG ET - Small unit not to be tested
P009	CO emissions not to exceed 0.82 lb per hour and 3.59 TPY	No	Yes	No	Yes	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG ET - Small unit not to be tested
P010 - P019	VE not to exceed 10%	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm.

	opacity as a 6-minute average												ET - If required
P010 - P019	PM/PM_{10} shall not exceed 0.1 g/hp-hr; 0.49 #/hr; 2.15 TPY	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P010 - P019	SO_2 shall not exceed 0.28 #/hr; 1.23 TPY	No	Yes	No	No	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P010 - P019	OC shall not exceed 5.84 #/hr; 125.79 TPY	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P010 - P019	VOC shall not exceed 0.82 #/hr; 3.59 TPY	No	Yes	No	No	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P010 - P019	HCl shall not exceed 0.36 #/hr; 1.58 TPY	No	Yes	No	No	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P010 - P019	CO shall not exceed 2.75 g/hp-hr; 13.53 #/hr; 59.26 TPY	No	Yes	No	No	Yes	No	Yes	Yes	Yes	No	No	Other - 40 CFR, Part 52 OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm.
P010 - P019	NO_X shall not exceed 0.5 g/hp-hr; 2.46 #/hr; 10.78 TPY	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	No	Other - 40 CFR, Part 52, Section 52.21 OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm.
P010 - P019	Collect and sell or reduce NMOC emissions by 98 wt % or to less than 20 ppm by	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm.

	volume, at 3% oxygen												
P010 - P019	PM shall not exceed 0.062 lb/mmBtu	17-11	No	No	No	Yes	No	Yes	Yes	No	Yes	No	OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P010 - P019	Visible emissions shall not exceed 20% opacity	17-07	No	Yes	No	Yes	No	Yes	Yes	No	Yes	No	OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P010 - P019	SO_2 emissions shall not exceed 0.5 lb/mmBtu	18-06	No	Yes	No	Yes	No	Yes	Yes	No	Yes	No	OR - Only burn treated LFG, lean burn only, LFG flow not to exceed 600 scfm. ET - If required
P010 - P019	NO_X shall not exceed 3 g/hp-hr or 220 ppmvd @15% O_2	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	Other - 40 CFR, Part 60, Subpart JJJJ OR - Only burned treated LFG, Lean burn, LFG flow not to exceed 600 scfm ET - Must Test
P010 - P019	CO shall not exceed 5 g/hp-hr or 610 ppmvd @15% O_2	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	Other - 40 CFR, Part 60, Subpart JJJJ ET - must test
P010 - P019	VOC shall not exceed 1 g/hp-hr or 80 ppmvd @15% O_2	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	Other - 40 CFR, Part 60, Subpart JJJJ ET - Must Test
P020	NO_X shall not exceed 0.08 #/mmBtu; 0.48 lb/hr and 2.1 TPY	No	Yes	No	Yes	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG ET - Small unit not to be tested
P020	CO shall not exceed 0.2 #/mmBtu; 1.2 lb/hour and 5.26 TPY	No	Yes	No	Yes	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG ET - Small unit not to be tested

P020	PE/PM_{10} shall not exceed 0.1 #/mmBtu; 0.44 TPY	No	Yes	No	Yes	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG ET - Small unit not to be tested
P020	VOC shall not exceed 0.08 #/hr; 0.35 TPY	No	Yes	No	Yes	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG ET - Small unit not to be tested
P020	SO_2 shall not exceed 0.09 #/hr; 0.40 TPY	No	Yes	No	Yes	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG ET - Small unit not to be tested
P020	HCl shall not exceed 0.11 #/hr; 0.48 TPY	No	Yes	No	Yes	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG ET - Small unit not to be tested
P020	VE not to exceed 10% opacity as a 6-min ave.	No	Yes	No	Yes	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG ET - Small unit not to be tested
P020	VE not to exceed 20% opacity as a 6-min ave.	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG ET - Small unit not to be tested
P020	Collect and sell or reduce NMOC emissions by 98 wt % or to less than 20 ppm by volume, at 3% oxygen	No	Yes	No	Yes	Yes	No	Yes	Yes	No	No	No	Other - OAC rule 3745-31-05(A)(3) OR - Only burn treated LFG ET - Small unit not to be tested

DRAFT

Division of Air Pollution Control
Title V Permit
for
Lorain County LFG Power Station

Facility ID:	0247100968
Permit Number:	P0111561
Permit Type:	Significant Permit Modification
Issued:	3/14/2013
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance

Division of Air Pollution Control
Title V Permit
for
Lorain County LFG Power Station

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Authorization

Facility ID:	0247100968
Facility Description:	Landfill gas Power generation station
Application Number(s):	A0045529
Permit Number:	P0111561
Permit Description:	Landfill gas Power generation station
Permit Type:	Significant Permit Modification
Issue Date:	3/14/2013
Effective Date:	To be entered upon final issuance
Expiration Date:	To be entered upon final issuance
Superseded Permit Number:	P0106718

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

Lorain County LFG Power Station
43502 Oberlin-Elyria Road
Oberlin, OH 44074

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 Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Northeast District Office. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions

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

(3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting

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

(Authority for term: ORC 3704.036(A))

2. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

(1) The date, place (as defined in the permit), and time of sampling or measurements.

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

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

b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

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

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

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

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

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

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

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

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

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

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive

measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

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

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

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

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

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

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

insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

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

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

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

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

(4) Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."

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

(5) Reports of any required monitoring and/or record keeping information shall be submitted to Ohio EPA DAPC, Northeast District Office.

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

3. Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

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

4. Risk Management Plans

If applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. ("Act"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

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

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

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

5. Title IV Provisions

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

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

6. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

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

7. General Requirements

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

b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with Standard Term and Condition A.11 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d) This permit does not convey any property rights of any sort, or any exclusive privilege.

e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the

Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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

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

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

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

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

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

8. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

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

9. Marketable Permit Programs

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

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

10. Reasonably Anticipated Operating Scenarios

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

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

11. Reopening for Cause

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

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

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

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

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

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

12. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

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

13. Compliance Requirements

a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official

that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

(1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.

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

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

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

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

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

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

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

(2) Compliance certifications shall include the following:

a. An identification of each term or condition of this permit that is the basis of the certification.

b. The permittee's current compliance status.

c. Whether compliance was continuous or intermittent.

d. The method(s) used for determining the compliance status of the source currently and over the required reporting period.

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

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

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

14. Permit Shield

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

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

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

15. Operational Flexibility

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

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

16. Emergencies

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

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

17. Off-Permit Changes

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

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

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

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

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

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

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

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

18. Compliance Method Requirements

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

(This term is provided for informational purposes only.)

19. Insignificant Activities or Emissions Levels

Each IEU that has one or more applicable requirements shall comply with those applicable requirements.

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

20. Permit to Install Requirement

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

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

21. Air Pollution Nuisance

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

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

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the responsible official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

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

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

23. Title VI Provisions

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

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

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

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

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

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

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (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.)

25. Records Retention RequirementsUnder State Law Only

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

26. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with

this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

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

27. Scheduled Maintenance/Malfunction Reporting

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

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

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

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

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

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

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

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

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. MACT Subpart AAAA and Subpart A Requirements

   a) Applicable Emissions Limitations and/or Control Requirements

      (1) None.

   b) Operational Restrictions

      (1) The permittee shall comply with the applicable compliance standards required under 40 CFR Part 63, Subpart AAAA including the following sections:

a.	63.1935(a)(3)	Existing Affected Sources
b.	63.1945(f) 63.1955(b)	 Compliance requirements for Existing, Area Sources
c.	Appendix, Table 1	Applicable General Provisions

   c) Monitoring and/or Recordkeeping Requirements

      (1) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 63, Subpart AAAA, including the following sections:

a.	63.1945(b)	Initial Compliance by January 16, 2004
b.	63.1960	Compliance Methods
c.	63.1965	Deviation Clarifications for SSM Plans and Control Device Operating Parameters
d.	63.1975	Calculating 3-hour Block Average for Control Device Operating Parameters
e.	63.1980(a)(b)	Required Records

d) Reporting Requirements

(1) The permittee shall submit semiannual reports and such other notifications and reports to the Ohio EPA, Northeast District Office as are required pursuant to 40 CFR Part 63, Subpart AAAA, per the following sections:

a.	63.1980	Semi-Annual Reporting Requirements

e) Testing Requirements

(1) None.

C. Emissions Unit Terms and Conditions

1. P009, Thermal Oxidizer

Operations, Property and/or Equipment Description:

Thermal Oxidizer #1 - This is used to "clean" the siloxane filters. LFG is passed through the siloxane filters (to strip siloxane from the filters). The LFG is then burned off by this thermal oxidizer. Rated at 4.1 mmBtu/hr.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001 (P0109199)	Nitrogen oxide (NO_X) emissions shall not exceed 0.10 pound per mmBtu, 0.41 pound per hour and 1.80 tons per year. Carbon monoxide (CO) emissions shall not exceed 0.20 pound per mmBtu, 0.82 pound per hour and 3.59 tons per year. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/2006	See b)(2)b.

(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 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 NO_X and CO emissions from this air contaminant source since the uncontrolled potential to emit for NO_X and CO is less than 10 tons per year.

c) Operational Restrictions

(1) The permittee has committed to dewatering the landfill gas (LFG) before it is processed through this emissions unit. Dewatering shall be defined as a reduction of the dew point of the LFG by at least 20 degrees Fahrenheit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0109199]

(2) All of the emissions from this emissions unit shall be vented to a thermal oxidizer that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0109199]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall install, calibrate, maintain and operate according to the manufacturer's specifications devices on piping to the thermal oxidizer which completely shuts off gas flow to the thermal oxidizer when the thermal oxidizer is not operating.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109199]

(2) In order to maintain compliance with the applicable emission limitation contained in this permit, the acceptable combustion temperature within the thermal oxidizer, during any period of time when the thermal oxidizer is in operation, shall not be less than 1400 degrees Fahrenheit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109199]

(3) The permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.

a. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees Celsius, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit is in operation:

i. all time periods, except during start-up and shut-down, during which the emissions unit was in operation and the thermal oxidizer inlet temperature was below the acceptable minimum.

ii. a log (date and total time) of the downtime or bypass of the capture (collection) system (serving the thermal oxidizer) and the thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit(s) was/were in operation.

b. A device that records flow to or bypass of the control device. The permittee shall either:

i. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

ii. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109919]

(4) The permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109199]

(5) Whenever the monitored average combustion temperature within the thermal oxidizer drops below the minimum operating temperature, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the name(s) of the personnel who conducted the investigation; and

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the temperature readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

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

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the permitted temperature range/limit. In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of administrative modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109199]

e) Reporting Requirements

(1) The permittee shall submit quarterly summaries of the following records:

a. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the range established in this permit;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the thermal oxidizer;

c. each incident of deviation described in “a” or “b” (above) where a prompt investigation was not conducted;

d. each incident of deviation described in “a” or “b” where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in “a” or “b” where proper records were not maintained for the investigation and/or the corrective action(s).

These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109199]

(2) The permittee shall submit semiannual reports to the Ohio EPA Northeast District Office, that include all time periods during which LFG was combusted in the thermal oxidizer, before it was first dewatered. These reports shall be submitted by January 31, and July 31, and shall cover the records for the previous 6 calendar months.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109199]

(3) Any breakdown or malfunction resulting in the emission of raw landfill gas (LFG) to the atmosphere shall be reported by telephone to the Northeast District Office of the Ohio EPA within one hour after the occurrence, or as soon as reasonably possible, and immediate remedial actions shall be undertaken to correct the problem and prevent further emissions to the atmosphere. A summary of the breakdown or malfunction, including the date(s) and time(s) and the measure(s) taken to correct the problem shall be included in the semiannual deviation report.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109199]

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:

NO_X emissions shall not exceed 0.10 pound per mmBtu, 0.41 pound per hour and 1.80 tons per year.

Applicable Compliance Method:

The following equation shall be used to determine compliance:

E = EF x R

where:

E = emission rate, pound per hour;

EF = emission factor, 0.1 pound per mmBtu (per manufacturer); and

R = Rating of unit, 4.1 mmBtu/hr (per manufacturer).

The tpy emission limitation was developed by multiplying the short-term allowable NO_X emission limitation (0.41 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.

b. Emission Limitation:

CO emissions shall not exceed 0.20 pound per mmBtu, 0.82 pound per hour and 3.59 tons per year.

Applicable Compliance Method:

The following equation shall be used to determine compliance:

E = EF x R

where:

E = emission rate, pound per hour;

EF = emission factor, 0.2 pound per mmBtu (per manufacturer); and

R = Rating of unit, 4.1 mmBtu/hr (per manufacturer).

The tpy emission limitation was developed by multiplying the short-term allowable CO emission limitation (0.82 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109199]

g) Miscellaneous Requirements

(1) None.

2. P020, Thermal Oxidizer #2

Operations, Property and/or Equipment Description:

Thermal Oxidizer #2 - This is used to "clean" the siloxane filters. LFG is passed through the siloxane filters (to strip siloxane from the filters). The LFG is then burned off by this thermal oxidizer. Rated at 6.0 mmBtu/hr, capable of burning 200 scfm..

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 52, Section 52.21 and OAC rules 3745-31-10 through 20	Nitrogen Oxide (NO_X) emissions shall not exceed 0.08 pound per million Btu, 0.48 pound per hour and 2.10 tons per year. Carbon monoxide (CO) emissions shall not exceed 0.2 pound per million Btu, 1.2 pounds per hour, and 5.26 tons per year. Particulate emissions (PE)/particulates less than 10 microns in diameter (PM_{10}) shall not exceed 0.1 pound per hour and 0.44 ton per year.
b.	OAC rule 3745-31-05(A)(3) as effective 11/30/2001	Volatile organic compound (VOC) emissions shall not exceed 0.08 pound per hour and 0.35 ton per year. Sulfur dioxide (SO_2) emissions shall not exceed 0.09 pound per hour and 0.40 ton per year. Hydrogen chloride (HCl) emissions shall not exceed 0.11 pound per hour and 0.48 ton per year. Visible particulate emissions from the stack shall not exceed 10% opacity as a 6-minute average.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-31-10 through 3745-31-20. See b)(2)a.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)b.
d.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
e.	40 CFR Part 60, Subpart WWW	See c)(1).

(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 requirements 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 emissions of VOC, SO_2 and HCl from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

c. Collected landfill gas shall be treated for sale or additional use per 40 CFR 60.752(b)(2)(iii)(C) or shall be routed to a control system per 40 CFR 60.752(b)(2)(iii)(B). The control system shall be designed and operated to reduce the non-methane organic compound (NMOC) emissions by 98 weight-percent or the outlet NMOC emissions shall be reduced to less than 20 parts per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

c) Operational Restrictions

(1) The permittee has committed to dewatering the landfill gas (LFG) before it is processed through this emissions unit. Dewatering shall be defined as a reduction of the dew point of the LFG by at least 20 degrees Fahrenheit.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0107089]

(2) All of the emissions from the siloxane filter system shall be vented to a thermal oxidizer that shall meet the operational, monitoring, and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0107089]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall install, calibrate, maintain and operate according to the manufacturer's specifications devices on piping to the thermal oxidizer which completely shut off gas flow to the thermal oxidizer when the thermal oxidizer is not operating.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(2) In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable combustion temperature within the thermal oxidizer, during any period of time when the emissions unit controlled by the thermal oxidizer is in operation, shall not be less than 1400 degrees Fahrenheit.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(3) The permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.

a. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees Celsius, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit is in operation:

i. all time periods, except during start-up and shut-down, during which the emissions unit was in operation and the thermal oxidizer inlet temperature was below the acceptable minimum.

ii. a log (date and total time) of the downtime or bypass of the capture (collection) system (serving the thermal oxidizer) and the thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit(s) was/were in operation.

b. A device that records flow to or bypass of the control device. The permittee shall either:

i. Install, calibrate, and maintain a gas flow rate measuring device that shall record the LFG flow to the control device at least every 15 minutes; or

ii. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(4) The permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(5) Whenever the monitored combustion temperature within the thermal oxidizer drops below the minimum operating temperature**,** the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the temperature readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

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

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA, Northeast District Office. The permittee may request revisions to the permitted temperature range/limit In addition; approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of administrative modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

e) Reporting Requirements

(1) The permittee shall submit quarterly summaries of the following records:

a. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the range established in this permit;

b. any period of time (start time and date, and end time and date) when the siloxane filter system was in operation and the process emissions were not vented to the thermal oxidizer;

c. each incident of deviation described in “a” or “b” (above) where a prompt investigation was not conducted;

d. each incident of deviation described in “a” or “b” where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in “a” or “b” where proper records were not maintained for the investigation and/or the corrective action(s).

These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(2) The permittee shall submit semiannual reports to the Ohio EPA Northeast District Office, that include all time periods during which LFG was combusted in the thermal oxidizer, before it was first dewatered. These reports shall be submitted by January 31, and July 31, and shall cover the records for the previous 6 calendar months.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(3) Any breakdown or malfunction resulting in the emission of raw LFG to the atmosphere shall be reported by telephone to the Northeast District Office of the Ohio EPA within one hour after the occurrence, or as soon as reasonably possible, and immediate remedial actions shall be undertaken to correct the problem and prevent further emissions to the atmosphere. A summary of the breakdown or malfunction, including the date(s) and time(s) and the measure(s) taken to correct the problem shall be included in the semiannual deviation report.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

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. <u>Emission Limitation</u>:

NO_X emissions shall not exceed 0.08 pound per million Btu, 0.48 pound per hour and 2.10 tons per year.

<u>Applicable Compliance Method</u>:

Compliance shall be demonstrated by using the following equation:

E = EF x flow x HV x 60/1E6

where:

E = emission rate, pound per hour;
EF = emission factor provided by manufacturer, 0.08 pound per million Btu;
flow = flow rate of landfill gas (LFG), cubic feet per minute, maximum is 200 cfm;
HV = heating value of LFG, assume 500 Btu per cf LFG;
60 = conversion factor, minutes per hour; and
1E6 = conversion factor, Btu/million Btu.

The tpy emission limitation was developed by multiplying the short-term allowable NO_x emission limitation (0.48 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.

b. Emission Limitation:

CO emissions shall not exceed 0.2 pound per million Btu, 1.2 pounds per hour, and 5.26 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = EF x flow x HV x 60/1E6

where:

E = emission rate, pound per hour;
EF = emission factor provided by manufacturer, 0.2 pound per million Btu;
flow = flow rate of landfill gas (LFG), cubic feet per minute, maximum is 200 cfm;
HV = heating value of LFG, assume 500 Btu per cf LFG;
60 = conversion factor, minutes per hour; and
1E6 = conversion factor, Btu/million Btu.

The tpy emission limitation was developed by multiplying the short-term allowable CO emission limitation (1.2 lbs/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.

c. Emission Limitation:

PE/PM_{10} emissions shall not exceed 0.1 pound per hour and 0.44 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = EF x flow x MC

where:

E = emission rate, pound per hour;
EF = emission factor from manufacturer, 0.001 pound per cubic foot of methane;
flow = flow rate of landfill gas (LFG), cubic feet per minute, maximum is 200 cfm; and
MC = methane concentration of LFG, assume 50%.

The tpy emission limitation was developed by multiplying the short-term allowable PE/PM_{10} emission limitation (0.1 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.

d. Emission Limitation:

VOC emissions shall not exceed 0.08 pound per hour and 0.35 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$E = [flow \times 60 \times MW_{lfg} \times P_{voc}/386] \times (1 - Eff)$

where:

E = emission rate, pound per hour;
flow = flow rate of landfill gas (LFG), cubic feet per minute, maximum is 200 cfm;
60 = conversion factor, minutes per hour;
MW_{lfg} = molecular weight of LFG, 30 lb/lbmole;
P_{voc} = percent of LFG that is VOC, assume 0.04%;
386 = conversion factor lbmole per cf LFG; and
Eff = destruction efficiency of thermal oxidizer, assume 98%.

The tpy emission limitation was developed by multiplying the short-term allowable VOC emission limitation (0.08 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_2 emissions shall not exceed 0.09 pound per hour and 0.40 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$E = EF \times flow \times 60$

where:

E = emission rate, pound per hour;
EF = emission factor provided by manufacturer, 7.786 pound per million cubic feet;
flow = flow rate of landfill gas, maximum is 200 cubic feet per min; and
60 = conversion factor, 60 min per hour.

The tpy emission limitation was developed by multiplying the short-term allowable SO_2 emission limitation (0.09 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:

HCl emissions shall not exceed 0.11 pound per hour and 0.48 ton per year.

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 26.

The tpy emission limitation was developed by multiplying the short-term allowable HCl emission limitation (0.11 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:

Visible particulate emissions from the stack 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.

h. Emission Limitation:

Visible particulate emissions from any stack 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:

The control system shall be designed and operated to reduce the non-methane organic compound (NMOC) by 98 weight-percent or the outlet NMOC emissions shall be reduced to less than 20 parts per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

Applicable Compliance Method:

If required, compliance with the control efficiency limitation shall be determined in accordance with Method 25 or 25C of 40 CFR, Part 60, Appendix A or alternative USEPA approved test methods may be used with prior approval from the Ohio EPA.

Compliance with this condition is not required if all landfill gas is treated in compliance with 40 CFR 60.752(b)(2)(iii)(C)

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

g) Miscellaneous Requirements

(1) None.

3. Emissions Unit Group -Engine Group #1: P001,P002,P003,P004,P005,P006,P007,P008.

EU ID	Operations, Property and/or Equipment Description
P001	1400 bkW(14.0 mmBtu/hr)Deutz TBG 620 V16 K Reciprocating Internal Combustion Engine #1. To produce electricity from landfill gas. Using lean burn technology.
P002	1400 bkW(14.0 mmBtu/hr)Deutz TBG 620 V16 K Reciprocating Internal Combustion Engine #2. To produce electricity from landfill gas. Using lean burn technology.
P003	1400 bkW(14.0 mmBtu/hr)Deutz TBG 620 V16 K Reciprocating Internal Combustion Engine #3. To produce electricity from landfill gas. Using lean burn technology.
P004	1400 bkW(14.0 mmBtu/hr)Deutz TBG 620 V16 K Reciprocating Internal Combustion Engine #4. To produce electricity from landfill gas. Using lean burn technology.
P005	1400 bkW(14.0 mmBtu/hr)Deutz TBG 620 V16 K Reciprocating Internal Combustion Engine #5. To produce electricity from landfill gas. Using lean burn technology.
P006	1400 bkW(14.0 mmBtu/hr)Deutz TBG 620 V16 K Reciprocating Internal Combustion Engine #6. To produce electricity from landfill gas. Using lean burn technology.
P007	1400 bkW(14.0 mmBtu/hr)Deutz TBG 620 V16 K Reciprocating Internal Combustion Engine #7. To produce electricity from landfill gas. Using lean burn technology.
P008	1400 bkW(14.0 mmBtu/hr)Deutz TBG 620 V16 K Reciprocating Internal Combustion Engine #8. To produce electricity from landfill gas. Using lean burn technology.

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)(10), d)(11), d)(12) and e)(4)

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), as effective 11/30/2001 (PTI P0109198)	Visible particulate emissions shall not exceed 10% opacity as a 6-minute average. Particulate emissions (PE) shall not exceed 0.87 pound per hour and 3.8 tons per year. Particulate less than 10 microns in diameter (PM_{10}) emissions shall not exceed 0.37 pound per hour and 1.63 tons per year.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Sulfur dioxide (SO_2) emissions shall not exceed 0.2 pound per hour and 0.9 ton per year. Volatile organic compound (VOC) emissions shall not exceed 0.68 pound per hour and 3.0 tons per year. Hydrogen chloride (HCl) emissions shall not exceed 0.28 pound per hour and 1.24 tons per year. Compliance with this rule also includes compliance with the requirements of 40 CFR Part 52, Section 52.21, and OAC rules 3745-31-10 through -20. See b)(2)a and b)(2)d.
b.	OAC rule 3745-31-05(A)(3), as effective 12/1/2006	See b)(2)b.
c.	40 CFR Part 52, Section 52.21 and OAC rules 3745-31-10 through -20	Carbon monoxide (CO) emissions shall not exceed 9.76 pounds per hour, 0.70 lb/mmBtu and 42.75 tons per year. Nitrogen oxides (NO_X) emissions shall not exceed 5.88 pounds per hour, 0.42 lb/mmBtu and 25.8 tons per year.
d.	OAC rule 3745-17-11(B)(5)	Particulate emissions 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(G)	The maximum emission of SO_2 from this emissions unit shall not exceed 0.5 pound of SO_2 per mmBtu actual heat input.

(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 pollutant 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 visible emissions, PE, PM_{10}, SO_2, and VOC emissions from this air contaminant source since the uncontrolled potential to emit is less than 10 tons per year.

c. The internal combustion engine shall operate using lean burn technology.

d. Collected landfill gas shall be treated for sale or additional use per 40 CFR 60.752(b)(2)(iii)(C) or shall be routed to a control system per 40 CFR 60.752(b)(2)(iii)(B). The control system shall be designed and operated to reduce the non-methane organic compound (NMOC) by 98 weight-percent or the outlet NMOC emissions shall be reduced to less than 20 parts per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0109198]

(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.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0109198]

(3) When demonstrating compliance with 40 CFR 60.752(b)(2)(iii)(C), the permittee has committed to compressing, filtering for particles up to 10 microns in diameter, and dewatering the landfill gas.

Dewatering shall be defined as a reduction of the dew point of the landfill gas by at least 20 degrees Fahrenheit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0109198]

(4) The allowable gas flow rate to the internal combustion engine's combustion chambers shall be determined during the most recent compliance test.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0109198]

(5) When demonstrating compliance with 40 CFR 60.752(b)(2)(iii)(B), the minimum allowable average temperature of the internal combustion engine's combustion chambers, based on 3-hour blocks of time, shall not be lower than the minimum combustion temperature that was established during the most recent compliance test that demonstrated compliance with the applicable requirements.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0109198]

(6) The allowable gas flow rate to the internal combustion engine's combustion chambers shall not exceed 600 scfm.

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

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.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109198]

(2) The permittee shall record the dates and times when the landfill gas is treated for sale or additional use and when the internal combustion engines are operated as landfill gas control devices.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109198]

(3) The permittee shall install, calibrate and maintain a continuous device that monitors and records the temperature of the landfill gas prior to dewatering and after dewatering. When demonstrating compliance with 40 CFR 60.752(b)(2)(iii)(C), the temperature shall be monitored at all times.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109198]

(4) The permittee shall install, calibrate and maintain a temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of +/- 1 percent of the temperature being measured expressed in degrees Celsius or +/- 0.5 degrees Celsius, whichever is greater, for the exhaust of the internal combustion engines. When demonstrating compliance with 40 CFR 60.752(b)(2)(iii)(B), the temperatures shall be monitored at all times.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109198]

(5) The permittee shall install, calibrate, and maintain a device that monitors and records gas flow to or bypass of the internal combustion engines. The gas flow rate measuring device shall record the flow to the control device at least every 15 minutes.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109198]

(6) When attempting to demonstrate compliance with 40 CFR 60.752(b)(2)(iii)(B), 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109198]

(7) The permittee shall collect and record each day all 3-hour blocks of time during which the average landfill gas flow rate to the internal combustion engine exceeds the maximum allowable gas flow as established during the most recent compliance test.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109198]

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109198]

(9) The permittee shall collect and record all times the flow rate to the internal combustion engine exceeded 600 scfm. The gas flow rate to the engine shall be determined by dividing the total gas flow into the treatment system(s) by the number of engines operating.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(10) The PTI application for this/these emissions unit(s), P001 - P008, 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. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., 24 hours per day and 7 days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. 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

Ceiling Value (ppm): 5.0

Maximum Hourly Emission Rate (lbs/hr): 2.265

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 13.1

MAGLC (ug/m3): 131

The permittee, has demonstrated that emissions of Hydrogen chloride, from emissions unit(s) P001 - P008, 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).

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F) and PTI P0109198]

(11) 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.

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F) and PTI P0109198]

(12) 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.

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F) and PTI P0109198]

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.

c. identify the date(s) and duration the gas flow rate to the internal combustion engine exceeded the maximum gas flow rate requirements, as established during the most recent compliance stack test, as a 3-hour average.

d. identify the date(s) and duration the gas flow rate to the internal combustion engine exceeded 600 scfm.

e. when demonstrating compliance with 40 CFR 60.752 (b)(2)(iii)(C), identify the date(s) and duration when the temperature difference of the landfill gas between pre-dewatering and post-dewatering is less than 20 degrees Fahrenheit.

f. when demonstrating compliance with 40 CFR 60.752(b)(2)(iii)(B), 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 Northeast District Office of the Ohio EPA by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109198]

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109198]

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

further emissions to the atmosphere. A summary of the breakdown or malfunction, including the date(s) and time(s) and the measure(s) taken to correct the problem shall be included in the semi-annual deviation report.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109198]

(4) The permittee shall include 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, in the quarterly deviation (excursion) reports. If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109198]

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:

VOC emissions shall not exceed 0.68 pound per hour and 3.0 tons per year.

Applicable Compliance Method:

Compliance with the VOC hourly emission limitation shall be determined 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 (0.68 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.

b. Emission Limitation:

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

Applicable Compliance Method:

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.

c. Emission Limitation:

PE shall not exceed 0.87 pound per hour and 3.8 tons per year.

Applicable Compliance Method:

Compliance with the PE hourly emission limitation shall be determined in accordance with the performance test requirement specified in f)(2).

The tpy emission limitation was developed by multiplying the short-term allowable PE limitation (0.87 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.

d. Emission Limitation:

PM_{10} emissions shall not exceed 0.37 pound per hour and 1.63 tons per year.

Applicable Compliance Method:

Compliance with the PM_{10} hourly emission rate shall be determined by using the following equation:

E = EF x 1,400/454

where:

E = emissions of PM_{10} (pound per hour);

EF = emission factor provided by manufacturer (0.12 g PM_{10}/bkWhr);

1,400 = rating of engine (bkW); and

454 = conversion factor grams per pound.

The tpy emission limitation was developed by multiplying the short-term allowable PM_{10} emission limitation (0.37 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:

NO_X emissions shall not exceed 5.88 pounds per hour, 0.42 lb/mmBtu and 25.8 tons per year.

Applicable Compliance Method:

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

The tpy emission limitation was developed by multiplying the short-term allowable NO_X emission limitation (5.88 lbs/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:

CO emissions shall not exceed 9.76 pounds per hour, 0.70 lb/mmBtu and 42.75 tons per year.

Applicable Compliance Method:

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

The tpy emission limitation was developed by multiplying the short-term allowable CO emission limitation (9.76 lbs/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:

SO_2 emissions shall not exceed 0.2 pound per hour and 0.9 ton per year.

Applicable Compliance Method:

Compliance with the SO_2 hourly emission limitation shall be determined in accordance with the performance test requirement specified in f)(2).

The tpy emission limitation was developed by multiplying the short-term allowable SO_2 emission limitation (0.2 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.

h. Emission Limitation:

HCl emissions shall not exceed 0.28 pound per hour and 1.24 tons per year.

Applicable Compliance Method:

Compliance with the HCl hourly emission limitation shall be determined in accordance with the performance test requirement specified in f)(2).

The tpy emission limitation was developed by multiplying the short-term allowable HCl emission limitation (0.28 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.

i. Emission Limitation:

The control system shall be designed and operated to reduce the non-methane organic compound (NMOC) by 98 weight-percent or the outlet NMOC emissions shall be reduced to less than 20 parts per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

Applicable Compliance Method:

Compliance with the control efficiency limitation shall be determined in accordance with the performance test requirement specified in f)(2)c.

Compliance with this condition is not required if all landfill gas is treated in compliance with 40 CFR 60.752(b)(2)(iii)(C).

j. Emission Limitation:

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

Applicable Compliance Method:

Compliance with the PE hourly emission limitation shall be determined in accordance with the performance test requirement specified in f)(2).

k. Emission Limitation:

The maximum emission of SO_2 from this emissions unit shall not exceed 0.5 pound of SO_2 per mmBtu actual heat input.

Applicable Compliance Method:

Compliance with the SO_2 hourly emission limitation shall be determined in accordance with the performance test requirement specified in f)(2).

l. Emission Limitation:

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

Applicable Compliance Method:

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.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109198]

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

a. Demonstrating compliance with the testing requirements of this permit shall be based upon testing three (3) of the units. If the results of testing three units demonstrate that either any of the three units tested are not in compliance with the permit allowable emission limitations, or that there is greater than a 10% variance of each other, Ohio EPA may require the facility to test an additional three (3) emissions units that have not been tested to date. The facility shall test three (3) emissions units at the time of each Title V permit renewal, rotating through the existing emissions units until all have been tested at least once, and then continuing to rotate through the emissions units in the order in which they were initially tested.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE, NO_X, CO, SO_2, VOC and HCl.

c. Unless the permittee can demonstrate that all landfill gas burned in the internal combustion engines has been compressed, filtered for particulates up to 10 microns in diameter, and dewatered since the previous compliance test, the emission testing shall be conducted to demonstrate compliance with either the removal of 98 weight-percent of NMOC or the reduction of the outlet concentration of NMOC to less than 20 parts per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

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

PE - Methods 1 through 5 of 40 CFR Part 60, Appendix A;

NO_X - Methods 1 through 4 and 7 or 7E of 40 CFR Part 60, Appendix A;

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

HCl - Methods 1 through 4 and 26 or 26A of 40 CFR Part 60, Appendix A;

VOC - Methods 1 through 4 and 25 or 25A of 40 CFR Part 60, Appendix A; and

SO_2 - Methods 1 through 4 and 6 of 40 CFR Part 60, Appendix A.

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

e. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.

f. 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).

g. 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.

h. 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.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-15-04 and PTI P0109198]

g) Miscellaneous Requirements

(1) None.

4. Emissions Unit Group -Engine Group #2:P010,P011,P012,P013,P014,P015,P016,P017,P018,P019.

EU ID	Operations, Property and/or Equipment Description
P010	2,233 hp Caterpillar Engine (model G3520C) to burn landfill gas to produce electricity.
P011	2,233 hp Caterpillar Engine (model G3520C) to burn landfill gas to produce electricity.
P012	2,233 hp Caterpillar Engine (model G3520C) to burn landfill gas to produce electricity.
P013	2,233 hp Caterpillar Engine (model G3520C) to burn landfill gas to produce electricity.
P014	2,233 hp Caterpillar Engine (model G3520C) to burn landfill gas to produce electricity.
P015	2,233 hp Caterpillar Engine (model G3520C) to burn landfill gas to produce electricity.
P016	2,233 hp Caterpillar Engine (model G3520C) to burn landfill gas to produce electricity.
P017	2,233 hp Caterpillar Engine (model G3520C) to burn landfill gas to produce electricity.
P018	2,233 hp Caterpillar Engine (model G3520C) to burn landfill gas to produce electricity.
P019	2,233 hp Caterpillar Engine (model G3520C) to burn landfill gas to produce electricity.

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)(11) through d)(14) and e)(4)

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), as effective 11/30/2001	Visible particulate emissions shall not exceed 10% opacity as a 6-minute average. Sulfur dioxide (SO_2) emissions shall not exceed 0.28 pound per hour and 1.23 tons per year. Volatile organic compound (VOC) emissions shall not exceed 0.82 pound per hour and 3.59 tons per year. Hydrogen chloride (HCl) emissions shall not exceed 0.36 pound per hour and 1.58 tons per year.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Organic compound (OC) emissions shall not exceed 5.84 grams per brake horsepower hour, 28.72 pounds per hour and 125.79 tons per year. Compliance with this rule also includes compliance with the requirements of 40 CFR Part 52, Section 52.21 and OAC rules 3745-31-10 through 20. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 12/1/2006	See b)(2)b.
c.	40 CFR Part 52, Section 52.21 and OAC rules 3745-31-10 through 20	Carbon monoxide (CO) emissions shall not exceed 2.75 grams per brake horsepower hour, 13.53 pounds per hour and 59.26 tons per year. Nitrogen oxides (NO_X) emissions shall not exceed 0.5 gram per brake horsepower hour, 2.46 pounds per hour and 10.78 tons per year. Particulate emissions (PE)/particulate less than 10 microns in diameter (PM_{10}) emissions shall not exceed 0.1 gram per brake horsepower hour, 0.49 pound per hour and 2.15 tons per year.
d.	40 CFR Part 60, Subpart WWW	See b)(2)c.
e.	OAC rule 3745-17-11(B)(5)	PE shall not exceed 0.062 pound per million Btu of actual heat input.
f.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
g.	OAC rule 3745-18-06	SO_2 emissions shall not exceed 0.5 pound per million Btu of actual heat input.
h.	40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230-4248) [In accordance with 40 CFR 60.4230(a)(4)(i), this emissions unit is a landfill gas fired lean burn stationary spark ignition (SI) internal	Emission standards for landfill gas SI-ICE manufactured after July 1, 2007 as specified in Table 1 of 40 CFR Part 60, Subpart JJJJ. NO_X emissions shall not exceed 3.0 grams per horsepower-hour or 220 ppmvd at 15% oxygen.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	combustion engine (ICE) constructed after June 12, 2006 and manufactured after July 1, 2007 with a maximum engine power greater than or equal to 500 HP]	CO emissions shall not exceed 5.0 grams per horsepower-hour or 610 ppmvd at 15% oxygen. VOC emissions shall not exceed 1.0 gram per horsepower-hour or 80 ppmvd at 15% oxygen The VOC emission limitation required by this applicable rule is less stringent than the VOC emission limitation established pursuant to OAC rule 3745-31-05(A)(3). The CO and NO_X emission limitations required by this applicable rule are less stringent than the CO and NO_X emission limitations established pursuant to OAC rules 3745-31-10 through 20
i.	40 CFR Part 63, Subpart ZZZZ	See b)(2)e.

(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. The 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 SO_2, VOC and HCl emissions from this air contaminant source since the uncontrolled potential to emit is less than 10 tons per year.

c. Collected landfill gas shall be treated for sale or additional use per 40 CFR 60.752(b)(2)(iii)(C) or shall be routed to a control system per 40 CFR 60.752(b)(2)(iii)(B). The control system shall be designed and operated to

reduce the non-methane organic compound (NMOC) emissions by 98 weight-percent or the outlet NMOC emissions shall be reduced to less than 20 parts per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

d. The internal combustion engine shall operate using lean burn technology.

e. In accordance with 40 CFR Part 63.6590(c) a new stationary RICE located at an area source must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR Part 60, Subpart JJJJ.

f. 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

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1) and P0107089]

(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.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0107089]

(3) When demonstrating compliance with 40 CFR 60.752(b)(2)(iii)(B), the maximum allowable gas flow rate to the internal combustion engines, based on 3-hour blocks of time, shall not be higher than the maximum gas flow rate that was established during the most recent compliance test that demonstrated compliance with the applicable requirements.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0107089]

(4) The allowable gas flow rate to the internal combustion engine's combustion chambers shall not exceed 600 scfm.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0107089]

(5) When demonstrating compliance with 40 CFR 60.752(b)(2)(iii)(C), the permittee has committed to compressing, filtering for particles up to 10 microns in diameter, and dewatering the landfill gas.

Dewatering shall be defined as a reduction of the dew point of the landfill gas by at least 20 degrees Fahrenheit.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0107089]

(6) When demonstrating compliance with 40 CFR 60.752(b)(2)(iii)(B), the minimum allowable average temperature of the internal combustion engine's combustion chambers, based on 3-hour blocks of time, shall not be lower than the minimum combustion temperature that was established during the most recent compliance test that demonstrated compliance with the applicable requirements.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0107089]

(7) 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

[Authority for term: OAC rule 3745-77-07(A)(1) and P0107089]

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.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

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

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(3) The permittee shall record the dates and times when the landfill gas is treated for sale or additional use and when the internal combustion engines are operated as landfill gas control devices.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(4) The permittee shall install, calibrate and maintain a continuous device that monitors and records the temperature of the landfill gas prior to dewatering and after dewatering. When demonstrating compliance with 40 CFR 60.752(b)(2)(iii)(C), the temperature shall be monitored at all times.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(5) The permittee shall install, calibrate and maintain a temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of +/- 1 percent of the temperature being measured expressed in degrees Celsius or +/- 0.5 degrees Celsius, whichever is greater, for the exhaust of the internal combustion engines. When demonstrating compliance with 40 CFR 60.752(b)(2)(iii)(B), the temperatures shall be monitored at all times.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(6) When attempting to demonstrate compliance with 40 CFR 60.752(b)(2)(iii)(B), 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(7) The permittee shall install, calibrate, and maintain a device that monitors and records gas flow to or bypass of the internal combustion engines. The gas flow rate measuring device shall record the flow to the control device at least every 15 minutes.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(8) When attempting to demonstrate compliance with 40 CFR 60.752(b)(2)(iii)(B), the permittee shall collect and record each day all 3-hour blocks of time during which the average landfill gas flow rate to the internal combustion engine exceeded the maximum allowable gas flow as established during the most recent compliance test.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(9) The permittee shall collect and record all times the flow rate to the internal combustion engine exceeded 600 scfm. The gas flow rate to the engine shall be determined by dividing the total gas flow into the treatment system(s) by the number of engines operating.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(10) The permittee shall record (daily) the operating hours of each engine.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(11) The permit to install (PTI) application for this/these emissions unit(s), P010 - P019, 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. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "**X**" hours per day and "**Y**" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

   TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. 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

TLV (mg/m3): 7.46

Maximum Hourly Emission Rate (lbs/hr): 3.71

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3.31

MAGLC (ug/m3): 177.57

The permittee, has demonstrated that emissions of hydrogen chloride, from emissions unit(s) P010 - P019, are 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).

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F) and P0107089]

(12) 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.

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F) and P0107089]

(13) 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.

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F) and P0107089]

(14) 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.

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F) and P0107089]

(15) 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

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

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;

c. identify the date(s) and duration the gas flow rate to the internal combustion engine exceeded the maximum gas flow rate requirements, as established during the most recent compliance stack test, as a 3-hour average;

d. identify the date(s) and duration the gas flow rate to the internal combustion engine exceeded 600 scfm;

e. when demonstrating compliance with 40 CFR 60.752 (b)(2)(iii)(C), identify the date(s) and duration when the temperature difference of the landfill gas between pre-dewatering and post-dewatering is less than 20 degrees Fahrenheit; and

f. when demonstrating compliance with 40 CFR 60.752(b)(2)(iii)(B), 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 Northeast District Office of the Ohio EPA by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

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

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(3) Any breakdown or malfunction resulting in the emission of raw landfill gas emissions to the atmosphere shall be reported by phone to the Northeast District Office of Ohio EPA within one hour after the occurrence, or as soon as reasonably possible, and immediately remedial measures shall be undertaken to correct the problem and prevent further emissions to the atmosphere. A summary of the breakdown or malfunction, including the date(s) and time(s) and the measure(s) taken to correct the problem shall be included in the semi-annual deviation report.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(4) The permittee shall include 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, in the quarterly deviation (excursion) reports. If no changes

to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(5) 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

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

f) Testing Requirements

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

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

b. Unless the permittee can demonstrate that all landfill gas burned in the internal combustion engines has been compressed, filtered for particulates up to 10 microns in diameter, and dewatered since the previous compliance test, the emission testing shall be conducted to demonstrate compliance with either the removal of 98 weight-percent of NMOC or the reduction of the outlet concentration of NMOC to less than 20 parts per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

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

NO_X - Methods 1 through 4 and 7 or 7E of 40 CFR Part 60, Appendix A;
CO - Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A;
VOC - Methods 1 through 4 and 25 or 25A of 40 CFR, Part 60, Appendix A; and
NMOC (if required) - Methods 1 through 4 and 25 or 25C of 40 CFR Part 60, Appendix A.

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

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.

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.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(2) Compliance with the emission limitations established in b)(1) and b)(2) of this permit 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:

SO_2 emissions shall not exceed 0.28 pound per hour and 1.23 tons per year.

Applicable Compliance Method:

Compliance with the SO_2 hourly emission rate shall be demonstrated by using the following equation:

E = EF x (MW/24.45) x Flow x 60/(35.31 x 1000 x 454)

where:

E = emissions of SO_2 (pound per hour);

EF = emission factor from AP-42, Section 2.4, Municipal Solid Waste Landfills, version 10/2008 (46.9 ppmv SO_2);

MW = molecular weight of SO_2, 64.06;

24.45 = equation constant;

Flow = average flow of LFG to engine, ft^3 per minute;

60 = conversion factor, minutes per hour;

35.31 = conversion factor, ft^3 per m^3;

1000 = conversion factor, milligrams per gram; and

454 = conversion factor, grams per pound.

The tpy emission limitation was developed by multiplying the short-term allowable SO_2 emission limitation (0.28 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.

c. Emission Limitation:

VOC emissions shall not exceed 0.82 pound per hour and 3.59 tons per year.

Applicable Compliance Method:

Compliance with the VOC hourly emission limitation shall be demonstrated in accordance with the performance test requirement specified in f)(1).

The tpy emission limitation was developed by multiplying the short-term allowable VOC emission limitation (0.82 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.

d. Emission Limitation:

HCl emissions shall not exceed 0.36 pound per hour and 1.58 tons per year.

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, Methods 1 through 4 and Method 26.

The tpy emission limitation was developed by multiplying the short-term allowable HCl emission limitation (0.36 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:

OC emissions shall not exceed 5.84 grams per brake horsepower hour, 28.72 pounds per hour and 125.79 tons per year.

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, Methods 1 through 4 and Method 25.

The tpy emission limitation was developed by multiplying the short-term allowable OC emission limitation (28.72 lbs/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:

CO emissions shall not exceed 2.75 grams per brake horsepower hour, 13.53 pounds per hour and 59.26 tons per year.

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)(1).

The tpy emission limitation was developed by multiplying the short-term allowable CO emission limitation (13.53 lbs/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:

NO_X emissions shall not exceed 0.5 gram per brake horsepower hour, 2.46 pounds per hour and 10.78 tons per year.

Applicable Compliance Method:

Compliance with the NO_X gram per brake horsepower hour, hourly emission and technical limitations shall be demonstrated in accordance with the performance test requirement specified in f)(1).

The tpy emission limitation was developed by multiplying the short-term allowable NO_X emission limitation (2.46 lbs/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.

h. Emission Limitation:

PE/PM_{10} emissions shall not exceed 0.1 gram per brake horsepower hour.

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, Methods 1 through 5.

i. Emission Limitation:

PE/PM_{10} emissions shall not exceed 0.49 pound per hour and 2.15 tons per year.

Applicable Compliance Method:

Compliance with the PE/PM_{10} hourly emission rate shall be demonstrated by using the following equation:

E = EF x 2233/454

where:

E = emissions of PM_{10} (pound per hour);

EF = emission factor provided by manufacturer (0.1 g PM_{10}/bhphr);

2,233 = rating of engine (bhphr); and

454 = conversion factor grams per pound.

The tpy emission limitation was developed by multiplying the short-term allowable PE/PM_{10} emission limitation (0.49 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.

j. Emission Limitation:

The control system shall be designed and operated to reduce the NMOC emissions by 98 weight-percent or the outlet NMOC emissions shall be reduced to less than 20 parts per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

Applicable Compliance Method:

If required, compliance with the control efficiency limitation shall be demonstrated in accordance with the performance test requirement specified in f)(1)c.

Compliance with this condition is not required if all landfill gas is treated in compliance with 40 CFR 60.752(b)(2)(iii)(C).

k. Emission Limitation:

PE shall not exceed 0.062 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, Methods 1 through 5.

l. Emission Limitation:

Visible particulate emissions from any stack 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.

m. Emission Limitation:

SO_2 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 8.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

(3) 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

[Authority for term: OAC rule 3745-77-07(C)(1) and P0107089]

g) Miscellaneous Requirements

(1) None.