State of Ohio Environmental Protection Agency

STREET ADDRESS:
Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
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P.O. Box 1049
Columbus, OH 43216-1049

2/26/2010

Certified Mail
Facility ID: 1677010976
Permit Number: P0105956
County: Summit

Timothy Haaf
Akron Regional Landfill Inc
851 Robison Rd. East
Erie, PA 16509

RE: DRAFT AIR POLLUTION TITLE V PERMIT
Permit Type: Renewal

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 EPA Weekly Review and the local newspaper, Akron Beacon Journal. A copy of the public notice, the Statement of Basis, and the draft permit are enclosed. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page http://www.epa.ohio.gov/dapc in Microsoft Word and Adobe Acrobat format. Comments will be accepted as a marked-up copy of the permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 W. Town St., 7th Floor
Columbus, Ohio 43215

and

Akron Regional Air Quality Management District
146 South High Street, Room 904
Akron, OH 44308

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 in writing 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 Akron Regional Air Quality Management District at (330)375-2480.

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*
ARAQMD; Pennsylvania; West Virginia

Summit County

PUBLIC NOTICE
ISSUANCE OF DRAFT AIR POLLUTION Title V Permit
Akron Regional Landfill Inc

Issue Date: 2/26/2010
Permit Number: P0105956
Permit Type: Renewal
Permit Description: Closed Solid Waste Landfill.
Facility ID: 1677010976
Facility Location: Akron Regional Landfill Inc
1585 Hardy Road,
Akron, OH 44313
Facility Description: Solid Waste Landfill

Chris Korleski, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio, has issued a draft action of an air pollution control Title V operating permit for the facility at the location identified above on the date indicated. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Sean Vadas at Akron Regional Air Quality Management District, 146 South High Street, Room 904 or (330)375-2480. The permit, which includes a detailed description of the operations, and associated statement of basis for the permit requirements, can be downloaded from the Web page: www.epa.ohio.gov/dapc

Statement of Basis For Air Pollution Title V Permit

Facility ID:	1677010976
Facility Name:	Akron Regional Landfill Inc
Facility Description:	Solid Waste Landfill.
Facility Address:	1585 Hardy Road, Akron, OH 44313
Permit #:	P0105956, Renewal

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

☐ Lead ☐ Sulfur Dioxide ☐ Carbon Monoxide ☐ Volatile Organic Compounds ☐ Nitrogen Oxides
☐ Particulate Matter ≤ 10 microns ☐ Single Hazardous Air Pollutant ☐ Combined Hazardous Air Pollutants
☒ Maximum Available Control Technology Standard(s) 40 CFR Part 63, Subpart AAAA & 40 CFR Part 60, Subpart WWW

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)	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 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

B. Facility-Wide Terms and Conditions

Term and Condition (paragraph)	Basis		Comments
	SIP (3745-)	Other	
2	77-07(A)(13)		Insignificant emissions unit T001 has an applicable PTI.
3		40 CFR Part 63, Subpart AAAA	This facility is required to comply with 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
St = streamlining term used to replace a PTI monitoring, record keeping, or reporting requirement with an equivalent or more stringent requirement
ENF = did noncompliance issues drive the monitoring requirements?
R = record keeping requirements
Rp = reporting requirements
ET = emission testing requirements (not including compliance method terms)
Misc = miscellaneous requirements

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments

		SIP (3745-)	Other												
P901	6.62 tpy NMOC (fugitive)	31-05(A)(3)		N	N	N	N	N	Y	N	Y	N	N	N	M: Compliance with the limitation is demonstrated using US EPA's "Landfill Gas emissions Model" (LandGEM) software. Et: Fugitive emissions source. Compliance with the limitation is demonstrated using US EPA's "LandGEM" software.
P901	933 tpy CH_4 (fugitive)	31-05(A)(3)		N	N	N	N	N	N	N	N	N	N	N	M, R, Rp, Et: Compliance with the limitation is demonstrated using US EPA's "LandGEM" software.
P901	5.29 tpy VOC (fugitive)	31-05(A)(3)		N	N	N	N	N	N	N	N	N	N	N	M, R, Rp, Et: Compliance with the limitation is demonstrated using US EPA's "LandGEM" software. Fugitive VOC emission rate is equal to 80% of the NMOC emissions.
P901	1.28 tpy combined HAPs (fugitive)	31-05(A)(3)		N	N	N	N	N	N	N	N	N	N	N	M, R, Rp, Et: Compliance with the limitation is demonstrated using US EPA's "LandGEM" software. Fugitive HAP emission rate is equal to 15% of the NMOC emissions.
P901	0.16 lb/hr NMOC, and 0.70 tpy (flare)	31-05(A)(3)		N	N	Y	N	N	Y	N	Y	N	N	N	Et: Initial stack test was conducted to demonstrate compliance with 40 CFR 60.18. NMOC emissions can be predicted using USEPA "LandGEM."
P901	26.97 lbs/hr methane, and 118.5 tpy (flare)	31-05(A)(3)		N	N	Y	N	N	Y	N	Y	N	N	N	Et: Initial stack test was conducted to demonstrate compliance with 40 CFR 60.18. NMOC emissions can be predicted using USEPA "LandGEM."
P901	0.13 lb/hr VOC, and 0.56 tpy (flare)	31-05(A)(3)		N	N	Y	N	N	Y	N	Y	N	N	N	Et: Initial stack test was conducted to demonstrate compliance with 40 CFR 60.18. NMOC emissions can be predicted using USEPA "LandGEM."
P901	0.55 lb/hr PM-10, and	31-05(		N	N	Y	N	N	Y	N	Y	N	N	N	Et: None – per Ohio EPA Engineering Guide 16.

	2.41 tpy (flare)	A)(3)													
P901	0.47 lb/hr SO_2, and 2.0 tpy (flare)	31-05(A)(3)		N	N	Y	N	N	Y	N	Y	N	N	N	Et: None – per Ohio EPA Engineering Guide 16, mass balance calculations can calculate the emissions based upon the sulfur concentration available to react in the landfill.
P901	2.0 lbs/hr NOx, and 8.77 tpy (flare)	31-05(A)(3)		N	N	Y	N	N	Y	N	Y	N	N	N	Et: Nitrogen level was determined in an initial stack test using Method 3C of 40 CFR Part 60, Appendix A. Emission factors then used to calculate emission rate.
P901	10.9 lbs/hr CO, and 47.73 tpy (flare)	31-05(A)(3)		N	N	Y	N	N	Y	N	Y	N	N	N	Et: Emission rate can be calculated based on the design methane concentration of the landfill and the heating value of methane.
P901	0.087 lb/hr HCl, and 0.381 tpy (flare)	31-05(A)(3)		N	N	Y	N	N	Y	N	Y	N	N	N	Et: None – per Ohio EPA Engineering Guide 16, mass balance calculation can calculate the emissions based upon the chlorine concentration available to react in the landfill.
P901	Methane concentration from the collection system shall be < 500 ppm above background at the surface of the landfill		40 CFR Part 60, Subpar WWW & 40 CFR Part 63, Subpart AAAA	N	N	Y	N	N	Y	N	Y	N	Y	N	
P901	No visible PE from the flare, except for periods not to exceed a total of 5-minutes during any 2 consecutive hours		40 CFR Part 60, Subpar WWW & 40 CFR Part 63, Subpart AAAA	N	N	Y	N	N	Y	N	Y	N	N	N	Et: None normally required for opacity alone

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

DRAFT

Air Pollution Title V Permit
for
Akron Regional Landfill Inc

Facility ID: 1677010976
Permit Number: P0105956
Permit Type: Renewal
Issued: 2/26/2010
Effective: To be entered upon final issuance
Expiration: To be entered upon final issuance

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Air Pollution Title V Permit
for
Akron Regional Landfill Inc

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Authorization

Facility ID: 1677010976
Facility Description: Solid Waste Landfill.
Application Number(s): A0038933
Permit Number: P0105956
Permit Description: Closed Solid Waste Landfill.
Permit Type: Renewal
Issue Date: 2/26/2010
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Superseded Permit Number:

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

Akron Regional Landfill Inc
1585 Hardy Road
Akron, OH 44313

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

Akron Regional Air Quality Management District
146 South High Street, Room 904
Akron, OH 44308
(330)375-2480

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 Akron Regional Air Quality Management District. 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

Chris Korleski
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) constitutes a violation of an emission limitation (or control requirement) and, therefore, 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 Akron Regional Air Quality Management District.
(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 contaminent 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 Requirements Under 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 Requirements Under 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. The following insignificant emissions units at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within the identified permit to install for the emissions unit. The insignificant emissions units listed below are subject to one or more applicable requirements contained in a permit-to-install or in the SIP approved versions of OAC Chapters 3745-17, 3745-18, and 3745-21:

   a) T001 – leachate storage tank (PTI 16-02128).

   (Authority for term: OAC rule 3745-77-07(A)(13))

3. This facility is subject to the requirements of 40 CFR Part 63, Subpart AAAA – National Emission Standards for Hazardous Air Pollutants for Municipal Solid Waste Landfills.

   The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

   (Authority for term: 40 CFR Part 63, Subpart AAAA)

C. Emissions Unit Terms and Conditions

1. P901, Closed MSW Landfill and Gas Collection and Control System

Operations, Property and/or Equipment Description:

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 16-02162)	Fugitive Landfill Emissions*: Non methane organic compound (NMOC) emissions shall not exceed 6.62 tons per year. Methane (CH_4) emissions shall not exceed 933.0 tons per year. Volatile organic compound (VOC) emissions shall not exceed 5.29 tons per year. Combined hazardous air pollutant (HAP) emissions shall not exceed 1.28 tons per year. Controlled Emissions From Flare*: NMOC emissions shall not exceed 0.16 pounds per hour, and 0.70 tons per year. CH_4 emissions shall not exceed 26.97 pounds per hour, and 118.15 tons per year. VOC emissions shall not exceed 0.13 pounds per hour, and 0.56 tons per year. Particulate matter with aerodynamic diameter less than ten microns in

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		diameter (PM-10) emissions shall not exceed 0.55 pounds per hour, and 2.41 tons per year. Sulfur dioxide (SO_2) emissions shall not exceed 0.47 pounds per hour, and 2.0 tons per year. Nitrogen oxides (NO_x) emissions shall not exceed 2.0 pounds per hour, and 8.77 tons per year. Carbon monoxide (CO) emissions shall not exceed 10.9 pounds per hour, and 47.73 tons per year. Hydrogen chloride (HCl) emissions shall not exceed 0.087 pounds per hour, and 0.381 tons per year. *The above emission limitations are all more stringent then the limitations established in the PTI. The permittee has requested these more stringent limitations to more accurately reflect the emissions unit's gradually lowered potential to emit due to the landfill being permanently closed.
b.	OAC rule 3745-17-07(A)	The emissions limitation based on this rule is less stringent than the limit established pursuant to 40 CFR Part 60, Subpart WWW.
c.	OAC rule 3745-17-10	The emissions limitation based on this rule is less stringent than the limit established pursuant to OAC rule 3745-31-05(A)(3).
d.	40 CFR Part 60, Subpart WWW	Methane concentration from the collection system shall be less than 500 parts per million above background at the surface of the landfill. Flare shall be designed and operated in accordance with 40 CFR 60.18. No visible particulate emissions (PE) from the flare, except for periods not to exceed a total of 5-minutes during any 2 consecutive hours.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See sections b)(2)a through b)(2)e below.
e.	40 CFR Part 63, Subpart AAAA	The requirements of this rule include the requirements of 40 CFR Part 60, Subpart WWW and 40 CFR 63.6(e)(3). See sections b)(2)a. through b)(2)d. below.
f.	40 CFR 63.1-15	Table 1 to Subpart AAAA of 40 CFR Part 63 – Applicability of General Provisions to Subpart AAAA shows which parts of the General Provisions in 40 CFR 63.1 – 15 apply.
g.	OAC rule 3745-114-01 ORC 3704.03(F)(4)(b)	See sections d)(12) through d)(15) and e)(5) below.

(2) Additional Terms and Conditions

a. The permittee shall operate and maintain a collection and control system that meets the design requirements of 40 CFR Part 60, Subpart WWW.

b. The active collection system shall satisfy the following requirements, as specified in 40 CFR Part 60.752(b)(2)(ii)(A):

i. The system shall be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment.

ii. The system shall collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active, or 2 years or more if closed or at final grade.

iii. The system shall collect gas at a sufficient extraction rate.

iv. The system shall be designed to minimize off-site migration of subsurface gas.

c. All collected gas shall be vented to an open flare designed and operated as follows:

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

ii. The flare shall be operated with a flame present at all times when gases are vented to it. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. The net heating value of the gas being combusted

and the actual exit velocity shall be calculated as required in the Testing Section of this permit.

iii. Flares shall be steam-assisted, air-assisted, or non-assisted, and shall comply with the following requirements for the heat content in paragraph "a" and the maximum tip velocity in paragraph "b", or shall comply with the alternative requirements in paragraph "c" for nonassisted flares:

(a) Steam-assisted or air-assisted flares shall have a net heating value of 300 Btu/scf (11.2 MJ/scm) or greater, for the gas being combusted.

Nonassisted flares shall have a net heating value of 200 Btu/scf (7.45 MJ/scm) for the gas being combusted.

The net heating value of the gas being combusted shall be calculated as required in the Testing Section of this permit.

(b) Steam-assisted and/or nonassisted flares shall be designed for and operated with an exit velocity of less than 18.3 m/sec (60 ft/sec), with the following exceptions:

(i) steam-assisted and nonassisted flares, having a net heating value of 1,000 Btu/scf (37.3 MJ/scm) for the gas being combusted, can be designed for and operated with an exit velocity equal to or greater than 18.3 m/sec (60 ft/sec), but less than 122 m/sec (400 ft/sec); and

(ii) steam-assisted and nonassisted flares can be designed for and operated with an exit velocity of less than the velocity calculated below for V_{max}, and less than 122 m/sec (400 ft/sec):

$$\text{Log10}\ (V_{max}) = (H_T + 28.8)/31.7$$

where:

V_{max} = maximum permitted velocity, m/sec;

28.8 = constant;

31.7 = constant; and

H_T = the net heating value as determined in the Testing Section of this permit.

Air-assisted flares shall be designed and operated with an exit velocity less than the velocity V_{max}, calculated as follows:

$$V_{max} = 8.706 + 0.7084\ (HT)$$

where:

V_{max} = maximum permitted velocity, m/sec;

8.706 = constant;

0.7084 = constant; and

HT = the net heating value as determined in the Testing Section of this permit.

(c) Nonassisted flares that have a diameter of 3 inches or greater and a hydrogen content of 8.0 percent (by volume), or greater, shall be designed for and operated with an exit velocity of less than 37.2 m/sec (122 ft/sec) and less than the velocity, V_{max}, as determined by the following equation:

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

where:

V_{max} = maximum permitted velocity, m/sec;

K_1 = constant, 6.0 volume-percent hydrogen;

K_2 = constant, 3.9 (m/sec)/volume-percent hydrogen; and

X_{H2} = the volume-percent of hydrogen, on a wet basis, as calculated by using the ASTM Method D1946-90.

d. The collection and control system may be capped or removed provided that all of the following conditions as specified in 40 CFR Part 60.752(b)(2)(v), are met:

i. The landfill shall be no longer accepting solid waste and be permanently closed (pursuant to 40 CFR Part 258.60).

ii. The collection and control system shall have been in operation a minimum of 15 years.

iii. The calculated NMOC gas produced by the landfill shall be less than 55 tons per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

c) Operational Restrictions

(1) The permittee shall operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for 5 years or more if active, or for 2 years or more if closed or at final grade.

(Authority for term: OAC rule 3745-77-07(A)(1) and PTI 16-02162 and 40 CFR Part 60.753(a))

(2) The permittee shall operate the collection system with negative pressure at each well except under the following conditions:

a. A fire or increased well temperature. (The permittee shall record instances when positive pressure occurs in efforts to avoid a fire.)

b. Use of a geomembrane or synthetic cover. (The permittee shall develop acceptable pressure limits in the design plan.)

c. A decommissioned well. (A well may experience a static positive pressure after shutdown to accommodate for declining flows. All design changes shall be approved by the Director of Ohio EPA.)

(Authority for term: OAC rule 3745-77-07(A)(1) and PTI 16-02162 and 40 CFR Part 60.753(b))

(3) The permittee shall operate each interior well in the collection system with a landfill gas temperature less than 55 degrees Celsius and with either a nitrogen level less than 20% or an oxygen level less than 5%. The permittee may establish a higher operating temperature, nitrogen, or oxygen value as a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

(Authority for term: OAC rule 3745-77-07(A)(1) and PTI 16-02162 and 40 CFR Part 60.753(c))

(4) The permittee shall operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. For exceedances, refer to section d)(2)d.

(Authority for term: OAC rule 3745-77-07(A)(1) and PTI 16-02162 and 40 CFR Part 60.753(d))

(5) The permittee shall operate the collection system such that all collected gases are vented to a control system designed and operating in compliance with section b)(2). In the event the collection or control system is inoperable, the gas mover system shall be shutdown and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within one hour.

(Authority for term: OAC rule 3745-77-07(A)(1) and PTI 16-02162 and 40 CFR Part 60.753(e))

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

(Authority for term: OAC rule 3745-77-07(A)(1) and PTI 16-02162 and 40 CFR Part 60.753(f))

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

(Authority for term: OAC rule 3745-77-07(A)(1) and PTI 16-02162)

d) Monitoring and/or Recordkeeping Requirements

(1) For the active gas collection system, the permittee shall install a sampling port for each well and record the following information on a monthly basis:

a. The gauge pressure in the gas collection header at each individual well;

b. The nitrogen or oxygen concentration in the landfill gas; and

c. The temperature of the landfill gas.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162 and 40 CFR Part 60.756(a))

(2) The permittee shall monitor surface concentrations of methane on a quarterly basis as follows:

a. Monitor surface concentrations of methane along the entire perimeter of the collection area and along a serpentine pattern spaced 30 meters apart (or a site specific established spacing) for each collection area.

b. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

c. Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of Appendix A of 40 CFR Part 60, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

d. Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified below shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements listed in section c)(4).

i. The location of each monitored exceedance shall be marked and the location recorded.

ii. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.

iii. If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Ohio EPA

for approval. No further monitoring of that location is required until the action specified has been taken.

iv. Any location that initially showed an exceedance but has a methane concentration less than 500 parts per million (ppm) methane above background at the 10-day re-monitoring specified above shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified above shall be taken.

v. If the closed landfill has no monitoring exceedances of the operational standard in three consecutive quarterly monitoring periods, the permittee may skip to annual monitoring. Any methane reading of 500 ppm or more above backgrounds detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162 and 40 CFR Part 60.755(c)) and 40 CFR Part 60.756)

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

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

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

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162 and 40 CFR Part 60.756(c))

(4) If a gas flow rate measuring device is not installed then the permittee shall secure the bypass 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 a month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted though the bypass line.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162 and 40 CFR Part 60.756(c))

(5) The permittee shall maintain the following information for the life of the control equipment as measured during the initial performance test or compliance demonstrations:

a. The maximum expected gas generation flow rate as calculated based on the following:

i. For sites with unknown year-to-year solid waste acceptance rate:

$$Qm = 2Lo * R * (e^{-kc} - e^{-kt})$$

Where:

Qm = maximum expected gas generation flow rate, cubic meters per year;

Lo = methane generation potential, cubic meters per megagram solid waste;

R = average annual acceptance rate, megagrams per year;

k = methane generation rate constant, per year;

t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years; and

c = time since closure, years (for an active landfill c = 0 and e^{-kc} = 1).

ii. For sites with known year-to-year solid waste acceptance rate:

$$Qm = \sum_{i=1}^{n} 2 * k * Lo * M_i * (e^{-k*ti})$$

Where:

Qm = maximum expected gas generation flow rate, cubic meters per year;

k = methane generation rate constant, per year;

Lo = methane generation potential, cubic meters per megagram solid waste;

M_i = mass of solid waste in the ith section, megagrams; and

ti = age of the ith section, years.

iii. If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in paragraphs d)(5)i. and ii. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in sections d)(5)i. or ii. or other methods shall be used to predict the maximum expected gas generation rate over the intended period of sue of the gas control system equipment. (The permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Ohio EPA.);

b. The density of the wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR Part 60.759(a)(1);

c. The flare type (i.e., steam-assisted, air-assisted, or non-assisted);

d. All visible emission readings;

e. Heat content determinations of the gas;

f. Flow rate or bypass flow rate measurements;

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

h. Continuous records of the flare flame monitoring and records of all periods of operations during which the flare flame is absent.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162 and 40 CFR Part 60.755(a))

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

The permittee shall record the following information each day:

a. All periods during which there was no flame; and

b. The downtime for the flare and monitoring equipment when the collection and control system is in operation.

(Authority for terms: OAC rule 3745-77-07(C)(1) and PTI 16-02162)

(7) The permittee shall maintain for the life of the collection system, an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162 and 40 CFR Part 60.758(d))

(8) The permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity of the landfill, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either hardcopy or electronic formats are acceptable. These records, may be also required by the OEPA, Division of Solid and Infectious Waste Management, and shall satisfy this permit condition.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162 and 40 CFR Part 60.758(a))

(9) The permittee shall conduct surface testing around the perimeter of the collection area along a pattern that traverses the landfill at 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162 and 40 CFR Part 60.755(c)(1))

(10) The permittee shall develop and implement a written SSM plan in accordance with 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site at the facility. Off-site records may be maintained if they are retrievable within 4 hours. Either hardcopy or electronic formats are acceptable.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 63.1960)

(11) The permittee shall, upon each visit to this closed facility, and at a minimum of once per month during normal operating conditions, visually inspect the flare and record whether or not any visible emissions are present and the duration of any visible emissions.

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

(12) The permit-to-install (PTI) application for this/these emissions unit(s), P901, 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): 7.5

Maximum Hourly Emission Rate (lbs/hr): 0.60

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3.779

MAGLC (ug/m3): 177.5

The permittee, has demonstrated that emissions of hydrogen chloride, from emissions unit(s) P901, 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: ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, Option A, Engineering Guide #70)

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

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

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

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

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

(Authority for term: PTI 16-02162 and OAC rule 3745-77-07(C)(1))

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

(Authority for term: PTI 16-02162 and OAC rule 3745-77-07(C)(1) and 40 CFR Part 60.757(d))

(4) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. Any record which indicates that the gauge pressure in the gas collection header at each individual well was positive for more than 15 days, unless the positive pressure resulted from one of the allowable conditions in 40 CFR 60.753(b) or the facility submitted an alternative timeline request pursuant to 40 CFR 60.755(a)(3);

b. Any record which indicates that the nitrogen or oxygen concentration in the landfill was greater than 20% or 5%, respectively for more than 15 days, unless the facility submitted an alternative timeline request pursuant to 40 CFR 60.755(a)(5), or proposed a higher operating value pursuant to 40 CFR 60.753(c);

c. Any record which indicates that the temperature of the landfill gas was greater than 55 degrees Celsius for more than 15 days, unless the facility submitted an alternative timeline request pursuant to 40 CFR 60.755(a)(5), or proposed a higher operating value pursuant to 40 CFR 60.753(c);

d. Any record which indicates that the surface concentration of methane was greater than 500 parts per million above background three times within a quarterly period, unless the facility submitted an alternative remedy for the exeedance and a corresponding timeline, pursuant to 40 CFR 60.755(c)(4)(v);

e. All periods during which the flare pilot flame was not functioning properly (the reports shall include a statement of equipment used, operations, and procedures for operation of the flare, if a pilot flame is not used, in addition to periods when the flare was not functioning properly); and

f. All periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow or any record which indicates that the bypass line valve was not maintained in the closed position.

If monitoring demonstrates that the operational requirement in paragraphs (b), (c), or (d) of this section are not met, corrective action shall be takes as specified in 40 CFR Part 60.752(a)(3) through (5) or 40 CFR 60.755(c). If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements in this section.

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

(Authority for term: OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), PTI 16-02162, and OAC rule 3745-77-07(A)(3)(c))

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

(6) The permittee shall submit semiannual reports which include the following:

a. The value and length of time for exceedance of applicable parameters monitored in 40 CFR Part 60.756(a), (b), (c), and (d);

b. A description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of a bypass flow as specified under 40 CFR Part 60.756;

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

d. All periods when the collection system was not operating in excess of 5 days;

e. The location of each exceedance of the 500 parts per million methane concentration as provided in 40 CFR Part 60.753(d) and the concentration recorded as each location for which an exceedance was recorded in the previous month; and

f. Any record indicating the date of installation and the location of each well or collection system expansion added pursuant to 40 CFR Part 60.755(a)(3), (b), and (c)(4).

g. These reports shall be submitted by January 31 and July 30 of each year and shall cover the previous 6 calendar months.

(Authority for term: PTI 16-02162 and OAC rule 3745-77-07(C)(1) and 40 CFR Part 63.1980)

(7) The permittee shall submit semiannual reports which include an identification of any record showing that visible emissions were present from the flare. The reports shall be submitted by January 31 and July 30 of each year and shall cover the previous 6 calendar months.

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

f) Testing Requirements

(1) The net heating value of the combusted landfill gas as determined 40 CFR 60.18(f)(3) is calculated from the concentration of methane in the landfill gas as measured by Method 3C. A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic compounds, hydrogen, and carbon monoxide is not applicable. Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under 40 CFR 60.18(f)(4).

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 60.754(e))

(2) After the installation of a collection and control system in accordance with 40 CFR Part 60.755, the permittee shall calculate the NMOC emission rate for the purposed of determining when the system can be removed as provided in 40 CFR Part 60.752(b)(2)(v) in accordance with the equation and procedures specified in 40 CFR Part 60.754(b), (b)(1), and (b)(2). The permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Ohio EPA as provided in 40 CFR Part 60.752(b)(2)(i)(B).

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162 and 40 CFR Part 60.753(b))

(3) The nitrogen level shall be determined using Method 3C of 40 CFR Part 60, Appendix A, unless an alternative test method is established as allowed by 40 CFR Part 60.752(b)(2)(i).

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162 and 40 CFR Part 60.753(c)(1))

(4) The oxygen level shall be determined by an oxygen meter using Method 3A of 40 CFR Part 60, Appendix A, unless an alternative test method is established as allowed by 40 CFR Part 60.752(b)(2)(i), except that:

a. The span shall be set so that the regulatory limit is between 20 and 50% of the span;

b. A data recorder is not required;

c. Only two calibration gases are required, a zero and span, and ambient air may be used as the span;

d. A calibration error check is not required; and

e. The allowable sample bias, zero drift, and calibration drift are plus or minus 10%.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162 and 40 CFR Part 60.753(c)(2))

(5) Compliance with the emission limitations in section b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

6.62 tons per year NMOC (fugitive landfill emissions)

Applicable Compliance Method:

Compliance shall be demonstrated using the latest version of USEPA's "Landfill Gas Emissions Model" software.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162)

b. Emission Limitation:

933.0 tons per year CH_4 (fugitive landfill emissions)

Applicable Compliance Method:

Compliance shall be demonstrated using the latest version of USEPA's "Landfill Gas Emissions Model" software.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162)

c. Emission Limitation:

5.29 tons per year VOC (fugitive landfill emissions)

Applicable Compliance Method:

Multiply the NMOC emissions, in tons per year, by 80% to convert to VOC emissions. This conversion rate was established per 61 Federal Register 9912, dated March 12, 1996.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162)

d. Emission Limitation:

1.28 tons per year combined HAPs (fugitive landfill emissions)

Applicable Compliance Method:

The annual emission limitation was established based upon the summation of individual HAP emission factors in AP-42 Table 2.4-1 (11/98) and assuming an 85% collection efficiency.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162)

e. Emission Limitations:

0.16 pounds per hour NMOC (flare emissions)

0.70 tons per year NMOC

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the NMOC emission rate, as calculated by USEPA's Landfill Emissions Model (LandGEM), by an average capture efficiency of 85% and a flare destruction efficiency of 98%.

The annual emission limitation was developed by multiplying the hourly mass emission limitation by 8760 hours per year, and then dividing by 2000 pounds per ton. Therefore, compliance with the annual limitation shall be ensured if compliance with the hourly limitation is maintained.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162)

f. Emission Limitations:

26.97 pounds per hour CH_4 (flare emissions)

118.5 tons per year CH_4

Applicable Compliance Method:

Compliance shall be demonstrated using the assumed maximum collected gas flow rate sent to the flare (1,000 cfm), an estimated methane concentration of 54%, and an assumed flare destruction efficiency of 98%.

The annual emission limitation was developed by multiplying the hourly mass emission limitation by 8760 hours per year, and then dividing by 2000 pounds per ton. Therefore, compliance with the annual limitation shall be ensured if compliance with the hourly limitation is maintained.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162)

g. Emission Limitations:

0.13 pounds per hour VOC (flare emissions)

0.56 tons per year VOC

Applicable Compliance Method:

Multiply the NMOC emissions by 80% to convert to VOC emissions. The conversion rate was established per 61 Federal Register 9912, dated March 12, 1996.

The annual emission limitation was developed by multiplying the hourly mass emission limitation by 8760 hours per year, and then dividing by 2000 pounds per

ton. Therefore, compliance with the annual limitation shall be ensured if compliance with the hourly limitation is maintained.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162)

h. Emission Limitations:

0.55 pounds per hour PM-10 (flare emissions)

2.41 tons per year PM-10

Applicable Compliance Method:

Compliance with the hourly limitation shall be demonstrated by multiplying the AP-42 emission factor (Table 2.4-1 11/98) of 17 pounds / MMdscf methane by the maximum expected collected value of 1000 scf / min landfill gas.

(17 lb PM/MMdscf CH_4)*(60,000 scf LFG/hr)*(54% CH_4)*(1 MM dscf/10^6 scf) = 0.55 pounds PM-10 per hour.

The annual emission limitation was developed by multiplying the hourly mass emission limitation by 8760 hours per year, and then dividing by 2000 pounds per ton. Therefore, compliance with the annual limitation shall be ensured if compliance with the hourly limitation is maintained.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162)

i. Emission Limitations:

0.47 pounds per hour SO_2 (flare emissions)

2.0 tons per year SO_2

Applicable Compliance Method:

Cs = 46.9 ppm (concentration of total reduced sulfur compounds) (AP-42 Chapter 4.2 equation 8)

(46.0 ppm Cs/1,000,000)*(64 mol wt SO_2 / 385.4 scf/lb-mol)*(60,000 scf LFG/hr) = 0.47 pounds SO_2 per hour

The total concentration of sulfur available to react was assumed to be equivalent to AP-42's LFG concentration. The calculation also assumes that 100% of the sulfur concentration will convert to SO_2.

The annual emission limitation was developed by multiplying the hourly mass emission limitation by 8760 hours per year, and then dividing by 2000 pounds per ton. Therefore, compliance with the annual limitation shall be ensured if compliance with the hourly limitation is maintained.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162)

j. Emission Limitations:

2.0 pounds per hour NO_x (flare emissions)

8.77 tons per year NO_x

Applicable Compliance Method:

Multiply the maximum flow rate by the design methane concentration of 50%, the lower heating value for methane of 910 Btu/scf, and the facility-supplied emission rate of 0.068 lb NOx/MMBtu.

(1,000 scf/min)*(0.5 cf CH_4/cf)*(910 Btu/cf CH_4)*(60 min/hr)*(1 MMBtu/10^6 Btu)*(0.068 lb NO_x/MMBtu) = 2.0 pounds NO_x per hour

The annual emission limitation was developed by multiplying the hourly mass emission limitation by 8760 hours per year, and then dividing by 2000 pounds per ton. Therefore, compliance with the annual limitation shall be ensured if compliance with the hourly limitation is maintained.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162)

k. Emission Limitations:

10.9 pounds per hour CO (flare emissions)

47.73 tons per year CO

Applicable Compliance Method:

Multiply the maximum flow rate by the design methane concentration of 50%, the lower heating value for methane of 910 Btu/scf, and the facility-supplied emission rate of 0.37 lb CO/MMBtu.

(1,000 scf/min)*(0.5 cf CH_4/cf)*(910 Btu/cf CH_4)*(60 min/hr)*(1 MMBtu/10^6 Btu)*(0.37 lb NO_x/MMBtu) = 10.9 pounds NO_x per hour

The annual emission limitation was developed by multiplying the hourly mass emission limitation by 8760 hours per year, and then dividing by 2000 pounds per ton. Therefore, compliance with the annual limitation shall be ensured if compliance with the hourly limitation is maintained.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162)

l. Emission Limitations:

0.087 pounds per hour HCl (flare emissions)

0.381 tons per year HCl

Applicable Compliance Method:

The hourly limitation is based upon stack testing results provided in USEPA's "Field Test Measurements at Five Municipal Solid Waste Landfills with Landfill Gas Control Technology – Final Report" (EPA/600/R-07/043 April 2007).

The annual emission limitation was developed by multiplying the hourly mass emission limitation by 8760 hours per year, and then dividing by 2000 pounds per ton. Therefore, compliance with the annual limitation shall be ensured if compliance with the hourly limitation is maintained.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162)

m. Emission Limitations:

No visible particulate emissions from the flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible emissions limitation in accordance with Method 9 or 40 CFR Part 60, Appendix A.

(Authority for term: OAC rule 3745-77-07(C)(1) and PTI 16-02162)

(6) Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD, and the Akron Regional Landfill, Inc.

(Authority for term: PTI 16-02162)

g) Miscellaneous Requirements

(1) None.