State of Ohio Environmental Protection Agency

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Columbus, OH 43216-1049

10/28/2009

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Mr. Chris Jaquet
Cherokee Run Landfill
2946 US Route 68 North
Bellefontaine, OH 43311

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0546010137
Permit Number: P0105066
Permit Type: OAC Chapter 3745-31 Modification
County: Logan

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of $70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

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

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

Sincerely,

Michael W. Ahern

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

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

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

FINAL

Air Pollution Permit-to-Install
for
Cherokee Run Landfill

Facility ID: 0546010137
Permit Number: P0105066
Permit Type: OAC Chapter 3745-31 Modification
Issued: 10/28/2009
Effective: 10/28/2009

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Air Pollution Permit-to-Install
for
Cherokee Run Landfill

Table of Contents

Authorization 1
A. Standard Terms and Conditions 3
1. Federally Enforceable Standard Terms and Conditions 4
2. Severability Clause 4
3. General Requirements 4
4. Monitoring and Related Record Keeping and Reporting Requirements 5
5. Scheduled Maintenance/Malfunction Reporting 6
6. Compliance Requirements 6
7. Best Available Technology 7
8. Air Pollution Nuisance 7
9. Reporting Requirements 7
10. Applicability 8
11. Construction of New Sources(s) and Authorization to Install 8
12. Permit-To-Operate Application 9
13. Construction Compliance Certification 9
14. Public Disclosure 9
15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations 9
16. Fees 9
17. Permit Transfers 10
18. Risk Management Plans 10
19. Title IV Provisions 10
B. Facility-Wide Terms and Conditions 11
C. Emissions Unit Terms and Conditions 13
1. F001, Roadways and Parking Areas 14
2. P901, Landfill Gas System 20

Authorization

Facility ID: 0546010137
Facility Description: Municipal solid waste landfill
Application Number(s): A0037645
Permit Number: P0105066
Permit Description: Laterial Expansion of the existing Landfill
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: $400.00
Issue Date: 10/28/2009
Effective Date: 10/28/2009

This document constitutes issuance to:

Cherokee Run Landfill
2946 US Route 68 North
Bellefontaine, OH 43311-0000

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

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

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

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director

Authorization (continued)

Permit Number: P0105066
Permit Description: Laterial Expansion of the existing Landfill

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

Emissions Unit ID:	**F001**
Company Equipment ID:	Roadways and Parking Areas
Superseded Permit Number:	05-14428
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P901**
Company Equipment ID:	Landfill Gas System
Superseded Permit Number:	05-14428
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

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

(1) Standard Term and Condition A. 2.a), Severability Clause

(2) Standard Term and Condition A. 3.c) through A. 3.e) General Requirements

(3) Standard Term and Condition A. 6.c) and A. 6.d), Compliance Requirements

(4) Standard Term and Condition A. 9., Reporting Requirements

(5) Standard Term and Condition A. 10., Applicability

(6) Standard Term and Condition A. 11.b) through A. 11.e), Construction of New Source(s) and Authorization to Install

(7) Standard Term and Condition A. 14., Public Disclosure

(8) Standard Term and Condition A. 15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(9) Standard Term and Condition A. 16., Fees

(10) Standard Term and Condition A. 17., Permit Transfers

2. Severability Clause

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

b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

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

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

c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

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

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

4. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

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

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

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

(4) The analytical techniques or methods used.

(5) The results of such analyses.

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

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

c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Southwest District Office.

(2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Southwest District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Ohio EPA DAPC, Southwest District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

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

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

6. Compliance Requirements

a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

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

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

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

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

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

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

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

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

7. Best Available Technology

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

8. Air Pollution Nuisance

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

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

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

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Southwest District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted

(i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

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

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

a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed through completion of the annual PER covering the last period of operation of the affected emissions unit(s).

d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the PER covering the last period the emissions unit operated.

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

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

12. Permit-To-Operate Application

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

13. Construction Compliance Certification

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

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

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

14. Public Disclosure

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

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

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

16. Fees

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

17. Permit Transfers

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

18. Risk Management Plans

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

19. Title IV Provisions

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

B. Facility-Wide Terms and Conditions

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

   a) None.

C. Emissions Unit Terms and Conditions

1. F001, Roadways and Parking Areas

Operations, Property and/or Equipment Description:

Paved and unpaved roadways and parking areas

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)	Particulate emissions (PE) shall not exceed 75.5 tons per year. Particulate matter with an aerodynamic diameter equal to or less than 10 microns (PM10) shall not exceed 16.7 tons per year. Particulate matter with an aerodynamic diameter equal to or less than 2.5 microns (PM2.5) shall not exceed 6.6 tons per year. There shall be no visible PE from any paved roadway or parking area, except for a period of time not to exceed 1 minute during any 60-minute observation period. There shall be no visible PE from any unpaved roadway or parking area, except for a period of time not to exceed 3 minutes during any 60-minute observation period. Employ best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See sections b)(2)a. thru g., c)(1), d)(1), d)(2), e)(1), f)(1), and f)(2), below

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rules 3745-17-07(B) and 3745-17-08(B)	See Section b)(2)h., below.

(2) Additional Terms and Conditions

a. The permittee shall employ best available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. The permittee shall employ water flushing and mechanical sweeping for the paved roadways and parking areas at sufficient frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

b. The permittee shall employ best available control measures on the unpaved shoulders of all paved roadways for the purpose of ensuring compliance with the above-mentioned applicable requirements. The permittee will improve the surface of any unpaved shoulders as necessary to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c. The permittee shall employ best available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. The permittee shall employ water as well as improve the surface of any unpaved roadway and parking area as necessary to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

d. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved or unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.

e. Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.

f. The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such

material has been deposited by trucking or earth moving equipment or erosion by water or other means.

g. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.

h. This emissions unit is not located in an "Appendix A" area as indicated in OAC rule 3745-17-08. Therefore, the emissions unit is not subject to the RACM requirements established in OAC rule 3745-17-08(B) and the visible emission limitations specified in OAC rule 3745-17-07(B).

c) Operational Restrictions

(1) This facility shall employ the Best Available Technology (BAT) for minimizing or eliminating the release of fugitive emissions as outlined in section b)(2) of this permit.

d) Monitoring and/or Recordkeeping Requirements

(1) Except as otherwise provided in this section, the permittee shall perform inspections of the paved and unpaved roadways and parking areas daily.

The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

The permittee may, upon receipt of written approval from Ohio EPA, Southwest District Office, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

(2) The permittee shall maintain daily records of the following information:

a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;

b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;

c. the dates the control measures were implemented; and

d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The above information required in d)(2).d. shall be kept separately for the paved roadways and parking areas, and the unpaved roadways and parking areas, and shall

be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation reports that identify any of the following information:

a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation;

b. any period in which visible emissions were observed in exceedance of the applicable limitations;

c. any additional control steps that were taken to reduce the fugitive dust emissions; and

d. each instance when a required control measures were not implemented.

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

[OAC rule 3745-15-03(B)(1)(a)], [OAC rule 3745-15-03(C)], and [OAC rule 3745-77-07(A)(3)(c)]

f) Testing Requirements

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

a. Emission Limitation:

Particulate emissions (PE) shall not exceed 75.5 tons per year.

Particulate matter with an aerodynamic diameter equal or less than 10 microns (PM10) shall not exceed 16.7 tons per year.

Particulate matter with an aerodynamic diameter equal or less than 2.5 microns (PM2.5) shall not exceed 6.6 tons per year.

The above limitations are based on the following equations from AP-42 Chapters 13.2.1 and 13.2.2:

Paved Roads:

$Ef = \{k \times [(sL/2)^{0.65}] \times [(W/3)^{1.5}]\} - C$

UAER = (VMT x Ef) / 2000 lbs/ton

Eext = (UAER x {1-[P/ (4 x N)]})

AER = Eext x (1-Cf)

Where:

Ef = particulate emission factor (lb/VMT);

UAER = Uncontrolled Annual Emission Rate, in tons/yr;

Eext = Uncontrolled Annual Emissions Rate, taking rainfall into account, in tons/yr;

AER = Annual Emission Rate, in tons/yr;

k = constant - 0.082 for PE, 0.016 for PM10, and 0.0024 PM 2.5 (particle size multiplier for lb/VMT);

sL = road surface silt loading, (7.4 g/m2);

W = mean vehicle weight in tons, 16 tons;

C = emission factor for 1980's vehicle fleet, 0.00047 for PE and PM10;

VMT = Vehicle Miles Traveled, (2.5 mile x 106300 loads per year = 265750 VMT/yr);

P = number of days with at least 0.01 inches of precipitation per year = 120 days for central Ohio, Figure 13.2.1-2, AP-42, section 13.2.1);

N = number of days in the averaging period = 365 days/year; and

Cf = Control Efficiency, (RACM Table 2.1.1-3, 80%).

Unpaved Roadways:

Ef = k x [(s/12)"a"] x [(W/3) to the power of "b"]

UAER = (VMT x Ef) / 2000 lbs/ton

Eext = UAER x [(365 - p)/365]

AER = Eext x (1-Cf)

Where,

Ef = size-specific particulate emission factor (lb/VMT)

k = constant – 4.9 for PE, 1.5 for PM10, and 0.15 PM 2.5 (particle size multiplier for pounds/VMT, AP-42 Table 13.2.2-2)

s = surface material silt content, 6.4%;

W = mean vehicle weight in tons, 16 tons;

a = constant - 0.9 for PE, 0.9 for PM10, and 0.7 PM2.5;

b = constant - 0.45for PE, PM10, and PM2.5;

VMT = Vehicle Miles Traveled, (0.5 mile x 106300 loads per year = 53150 VMT/yr);

Eext = emission factor extrapolated for natural mitigation, lb/VMT;

p = number of days with at least 0.01 inches of precipitation per year = 120 days for central Ohio, Figure 13.2.2-1, AP-42, section 13.2.2; and

Cf = Control Efficiency, (RACM Table 2.1.1-3, 95%).

Applicable Compliance Method:

Compliance with above limitations is based on the use of the required control measures and monitoring requirements properly being maintained and performed.

b. Emission Limitation:

There shall be no visible PE from any paved roadway or parking area, except for a period of time not to exceed 1 minute during any 60-minute observation period.

There shall be no visible PE from any unpaved roadway or parking area, except for a period of time not to exceed 3 minutes during any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with the emission limitations for the paved and unpaved roadways and parking areas identified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

g) Miscellaneous Requirements

(1) None.

2. P901, Landfill Gas System

Operations, Property and/or Equipment Description:

MSW Landfill with enclosed flare

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

(1) 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)	The annual emissions from the gas recovery operation (stack emissions) shall not exceed the following: 17.5 tons of particulate emissions (PE); 32.3 tons of sulfur dioxide (SO2); 47.9 tons of nitrogen oxides (NOx); 236.2 tons of carbon monoxide (CO); 2.6 tons of Non-methane organic compounds (NMOC); 2.9 tons hydrogen chloride; and 1.0 tons of volatile organic compounds (VOC). The annual fugitive landfill gas emissions shall not exceed the following: 176.4 tons s of non-methane organic compounds (NMOC); 68.8 tons of VOC; and 46,172 tons of methane. Comply with the requirements of 40 CFR Part 60 Subpart WWW, 40 CFR Part 61 Subparts A and M, and 40 CFR Part 63 Subpart AAA. See sections b)(2)a., below.
b.	OAC rule 3745-17-07(B) and OAC rule 3745-17-08	See section b)(2)k., below..
c.	40 CFR Part 60, Subpart WWW	See sections b)(2)b. thru f., c)(1) thru

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		(18), d)(1) thru (18), e)(1) thru (4), and f)(1)a. thru h., below.
d.	OAC Chapter 3745-20 and the NESHAP (40 CFR Part 61, Subparts A and M)	See sections b)(2)g. thru j., c)(19) and (20), d)(19) thru (25), e)(5) thru (11), and f)(1)i., below..
e.	40 CFR Part 63, Subpart AAAA	See section b)(2)l., below.

(2) Additional Terms and Conditions

a. The permittee shall ensure that solid wastes are deposited, spread, and compacted in such a manner as to minimize or prevent visible emissions of dust. All truckloads of solid waste shall be unloaded in a manner which will minimize the drop height of the solid wastes. Any dusty materials or wastes likely to become airborne shall be watered as necessary prior to or during dumping operations in order to minimize or eliminate visible emissions of fugitive dust. Watering shall be conducted in such a manner as to avoid the pooling of liquids and runoff. No dusty material shall be dumped during periods of high wind speed, unless the material has been treated to prevent fugitive dust emissions from becoming airborne.

b. The calculated NMOC emission rate for this facility is greater than 50 megagrams per year (Mg/yr), therefore the permittee shall operate a collection and control system that captures the gas generated within the landfill as required below.

i. An active collection system shall:

(a) 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;

(b) 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;

(c) collect gas at a sufficient extraction rate; and

(d) be designed to minimize off-site migration of subsurface gas.

ii. A passive collection system shall:

(a) comply with the provisions specified in b)(2)b.i.; and

(b) be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR 258.40.

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

i. The landfill shall no longer be accepting solid waste and shall be permanently closed as defined in 40 CFR 60.751 and in accordance with the requirements of 40 CFR 258.60.

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

iii. The NMOC emission rate of the landfill, calculated per 40 CFR 60.754(b), shall be less than 50 megagrams/year on three successive test dates. The test dates shall be no less than 90 days and no more than 180 days apart.

iv. A closure report shall be submitted to the Director within 30 days of waste acceptance cessation and no additional wastes shall be placed in the landfill.

[40 CFR 60.752(b)(2)(v)]

d. The provisions of this permit, under the authority of 40 CFR, Part 60, Subpart WWW, apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of the start-up, shutdown, or malfunction event does not exceed 5 days for collection systems and does not exceed 1 hour for treatment or control devices, in which case any deviation from the requirements shall be recorded and included in the semiannual report.

[40 CFR 60.755(e)]

e. The permittee shall develop and implement a written startup, shutdown, and malfunction (SSM) plan according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site.

[40 CFR 63.1960]

f. 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, and as required in 40 CFR 60.752, 60.753, and this permit. The collection and control system shall meet the specifications for an active collection system as required in 40 CFR 60.759, included in this permit.

[40 CFR 60.753(a)]

g. The landfill, approved to accept asbestos-containing waste materials shall maintain the following work practice standards:

i. There shall be no visible emissions from asbestos-containing waste materials during on-site transportation, transfer, unloading, deposition, compacting operations, or from any inactive asbestos waste disposal sites.

ii. Deposition and burial operations shall be conducted in a careful manner that prevents asbestos-containing waste materials from being broken up or dispersed before the materials are buried

iii. The permittee shall inspect each load of asbestos-containing material delivered to the facility. The inspection shall consist of a visual examination to ensure that each shipment of asbestos-containing waste materials is received in intact, leak-tight containers labeled with appropriate hazard warning labels, the name of the waste generator, and the location of waste generation. The inspection also shall determine whether the waste shipment records accompany the consignment and accurately describe the waste material and quantity.

iv. If on the basis of the inspection, the waste material is found to be improperly received, the load shall be disposed of in accordance with the procedures in the "Asbestos Spill Contingency Plan," and the discrepancy shall be noted on the waste shipment record.

[40 CFR 61.154(a) and (e)] and [OAC rule 3745-20-06]

h. The permittee shall develop, implement, and maintain an "Asbestos Disposal Operating Procedure and Spill Contingency Plan" consisting of:

i. authorized personnel training;

ii. inspection and disposal operating procedures;

iii. non-conforming load response procedures;

iv. inventory and maintenance procedures for safety and emissions control equipment;

v. record keeping procedures; and

vi. emergency notification procedures.

Authorized personnel shall be knowledgeable in the procedures, and the Plan shall be available for inspection at this facility at all times. Emissions control equipment shall be available for wetting and containing asbestos in the event of a release or non-conforming load disposal. All equipment required to implement the "Asbestos Disposal Operating Procedure and Spill Contingency Plan" shall be maintained in accordance with good engineering practices to ensure that the equipment is in a ready-to-use condition and in an appropriate location for use.

[OAC rule 3745-20-06, in part] and/or [OAC rule 3745-31-05(A)(3)]

i. The facility can accept for disposal any regulated asbestos-containing material as defined in the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Asbestos, 40 CFR Part 61, Subpart M, Section 141 and OAC rule 3745-20, or any subsequent revisions to either rule. Regulated asbestos-containing material is defined to include:

i. friable asbestos material;

ii. Category I nonfriable asbestos-containing material that has become friable;

iii. Category I nonfriable asbestos-containing material that will be or has been subjected to sanding, grinding, cutting, or abrading; or

iv. Category II nonfriable asbestos-containing material that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.

j. The permittee shall ensure that any Category I and/or Category II nonfriable asbestos-containing waste material received does not become friable during processing at the landfill. If any asbestos material arrives at the landfill and meets the description of a regulated asbestos-containing material as described in (a) through (d) above, the landfill shall:

i. cause or permit no visible emissions to the outside air from the asbestos-containing waste materials during on-site transportation, transfer, deposition, or compacting operations;

ii. assure that deposition and burial operations are conducted in a manner which prevents handling by equipment or persons that causes asbestos-containing waste materials to be broken-up or dispersed before the materials are buried;

iii. cover the asbestos-containing waste material with at least twelve inches of non-asbestos-containing material, as soon as practicable after deposition, but no later than at the end of the operating day; and

iv. assure that during the unloading, deposition, burial, and initial compaction of asbestos-containing waste materials, the disposal site is restricted adequately to deter unauthorized entry of the general public and any unauthorized personnel to within one hundred feet of the operations.

[40 CFR 61.154(a) and (c), in part] and [OAC rule 3745-20-06(B)]

k. This emissions unit is not located in an "Appendix A" area as indicated in OAC rule 3745-17-08. Therefore, the emissions unit is not subject to the reasonably available control measures (RACM) requirements established in OAC rule 3745-17-08(B) and the visible emission limitations specified in OAC rule 3745-17-07(B).

l. The requirements of 40 CFR, Part 63, Subpart AAAA also include compliance with the requirements of 40 CFR, Part 60, Subpart WWW.

c) Operational Restrictions

(1) The Landfill Gas Collection and Control Systems at this facility shall be equipped with at least one of the following:

a. an open flare which is designed and operated to reduce NMOC by 98 percent by weight;

b. an enclosed combustion device, which shall either reduce the NMOC by 98 percent by weight or reduce the outlet NMOC concentration to less than 20 ppm by volume, on a dry basis as hexane at 3% oxygen; and/or

c. a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall meet the requirements of 40 CFR 60.752(B)(2)(iii)(A) or (B).

(2) The permittee shall operate the active collection and control system to capture the gas generated within the landfill and route all the collected gas to emissions unit P901. The collection and control system shall be operated to comply with 40 CFR 60, Subpart WWW in accordance with the provisions of 40 CFR sections 60.752, 60.753, 60.755, and 60.756, which are reflected in this permit.

[40 CFR 60.752(b)(2)(iii) and (iv)]

(3) The landfill gas collection system shall satisfy the following requirements, as specified in 40 CFR 60.752(b)(2)(ii)(A):

a. 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;

b. 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;

c. the system shall collect gas at a sufficient extraction rate; and

d. the system shall be designed to minimize off-site migration of subsurface gas.

[40 CFR 60.752(b)(2)(ii)(A)] and [40 CFR 60.753(a)]

(4) The permittee shall install and place each well or design component as specified in the approved design plan. Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of five years or more, if active; or two years or more, if closed or at final grade.

(5) If an open flare is used to control landfill gas emissions, it shall be designed and operated as follows:

a. An open 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.

b. An open flare shall be operated with a flame present at all times when landfill 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.

c. Open flares shall be steam-assisted, air-assisted, or non-assisted, and shall comply with the following requirements for the heat content and the maximum tip velocity , or shall comply with the alternative requirements for non-assisted flares:

i. 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.

ii. 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:

(a) 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

(b) 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:

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

Where:

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

8.706 = constant;

0.7084 = constant; and

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

iii. Non-assisted 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.

[40 CFR 60.18] and [OAC rule 3745-21-10(P)]

(6) The permittee shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Director:

a. The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandibility, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

b. The sufficient density of gas collection devices, determined above, shall address landfill gas migration issues and augmentation of the collection system through the use of active systems at the landfill perimeter or exterior.

[40 CFR 60.759(a)(1) and (2)]

(7) The permittee shall convey the landfill gas to a control system through the collection header pipe(s). The gas moving equipment shall be sized to handle the maximum gas generation flow rate expected over its intended period of use, using the following procedures:

a. For existing collecting systems, the actual flow data shall be used to project the maximum flow rate.

b. For new collection systems, the maximum flow rate shall be calculated in accordance with 40 CFR 60.755(a)(1), using the formula also contained in the Testing Section of this permit.

[40 CFR 60.755(a)(1), in part]

(8) Landfill gas collection devices shall be placed to control all gas producing areas except those that meet the following requirements:

a. Any segregated area of non-degradable material may be excluded from the gas collection requirements if up-to-date plot maps showing each uniquely identified existing and planned collector in the system, their locations on the map, and the type of waste deposited in each area has been documented. The documentation shall provide the nature, date of deposition, location, and amount of non-degradable material deposited in the area, and shall be provided to the Director upon request.

b. Any non-productive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1% of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Director upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill.

Emissions from each section shall be computed using the following equation:

$$Q_i = 2k\, L_0\, M_i\, (e^{-kti})\, C_{NMOC}\, (3.6\times10^{-9})$$

Where:

Q_i = NMOC emission rate from the ith section, in megagrams per year

k = methane generation rate constant, in year $^{-1}$

L_O = methane generation potential, in cubic meters per megagram solid waste

M_i = mass of the degradable solid waste in the ith section, in megagram

t_i = age of the solid waste in the ith section, in years

C_{NMOC} = concentration of nonmethane organic compounds, in parts per million by volume

3.6×10^{-9} = conversion factor.

c. The values for k, L_O, and C_{NMOC} determined in field testing shall be used, if field testing has been performed in determining the NMOC emission rate or the radii of influence. If field testing has not been performed, the default values for k, L_O and C_{NMOC} are as follows:

k** = 0.05 per year

L_O = 170 cubic meters per megagram

C_{NMOC} = 4,000 parts per million by volume as hexane

** For landfills located in geographical areas with a thirty-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

[40 CFR 60.759(a)(3)]

(9) When the permittee constructs new gas collection devices, the permittee shall use the following equipment or procedures:

a. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

b. Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

c. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

[40 CFR 60.759(b)]

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

a. a fire or increased well temperature (the permittee shall record all 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); or

c. 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 Ohio EPA.

[40 CFR 60.753(b)]

(11) The permittee shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The permittee may establish a higher operating temperature, nitrogen, or oxygen value at 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.

a. The nitrogen level shall be determined using 40 CFR, Part 60, Appendix A, Method 3C, unless an alternative test method is approved by the Administrator.

b. The oxygen level shall be determined by an oxygen meter using 40 CFR, Part 60, Appendix A, Method 3A, unless an alternative test method is approved by the Administrator, except that:

i. The span shall be set so that the regulatory limit is between 20 and 50 percent of the span.

ii. A data recorder is not required.

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

iv. A calibration error check is not required.

v. The allowable sample bias, zero drift, and calibration drift are plus or minus 10 percent.

[40 CFR 60.753(c)]

(12) 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. To determine if this level is exceeded, the permittee shall conduct surface testing on a quarterly basis around the perimeter of the collection area and 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.

The permittee may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

[40 CFR 60.753(d)]

(13) The permittee shall operate the collection system such that all collected gases are vented to a control system designed and operated in compliance with the requirements in this permit. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour.

[40 CFR 60.753(e)]

(14) The permittee shall operate the control and/or treatment system at all times when the collected gas is routed to the system.

[40 CFR 60.753(f)]

(15) If monitoring demonstrates that the operational requirements for negative pressure, interior wellhead temperature, wellhead oxygen or nitrogen concentration, and/or surface methane levels are not met, corrective action shall be taken as specified in the monitoring and record keeping requirements for the pressure, temperature, oxygen or nitrogen concentration at each well's gas collection header and surface methane measurements. If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements.

[40 CFR 60.753(g)]

(16) The permittee shall operate the control device within the parameter ranges established during the initial or most recent performance test. The parameters established shall be based on the control device installed and may include a heat sensing device, gas flow rate measuring device, and/or gauge pressure device in the gas collection header.

[40 CFR 60.752(b)(2)(iii)(B)(2)]

(17) If a combustion device (enclosed flare) is employed pursuant to section b)(2), the average combustion temperature of the combustion device, for any-3 hour block of time when the emissions unit is in operation, shall not be more than 28 degrees Celsius below the average temperature measured during the most recent compliance test that demonstrated the emissions unit was in compliance.

(18) The permittee shall keep for at least 5 years, up-to-date, readily accessible, on-site records of the design capacity report which showed the landfill capacity to equal or exceed 2.5 million megagrams and/or 2.5 million cubic meters, 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.

[40 CFR 60.758(a)]

(19) During the unloading, deposition, burial, and initial compaction of asbestos-containing waste materials, the owner or operator of the active waste disposal site shall establish a restricted area adequate to deter the unauthorized entry of the general public and any unauthorized personnel from any location within one hundred feet of the operations. The following information shall be displayed on a sign not less than twenty by fourteen inches, so that it is visible at all entrances, from all directions, and at intervals of three hundred feet or less either along the property line of the facility or along the fencing

immediately surrounding the restricted area(s). The signs shall use letter sizes and styles of a visibility at least equal to the following specifications:

Legend:

ASBESTOS WASTE DISPOSAL SITE 2.5 cm (1 inch) Sans Serif, Gothic or Block

DO NOT CREATE DUST 1.9 cm (3/4 inch) Sans Serif, Gothic or Block 14 Point Gothic

BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH 14 Point Gothic

Spacing between any two lines must be at least equal to the height of the upper two lines.

[40 CFR 61.154(b)] and [OAC rule 3745-20-06(B)(4) and (5)]

(20) The permittee shall cover and compact asbestos wastes in accordance with the following requirements:

a. As soon as practical after the placement of asbestos, but no later than the end of each working day, the asbestos-containing waste materials deposited at the site during the operating day shall be covered with at least 12 inches of non-asbestos-containing materials. Once the asbestos-containing waste materials are covered, the area shall be compacted.

b. Care shall be taken to ensure that disposed asbestos shall not be re-excavated in subsequent operations. Any accidentally exposed material shall be immediately recovered in accordance with the provisions of this permit.

c. Asbestos-containing waste materials shall be separated from the landfill final grade by no less than 24 inches of compacted non-asbestos-containing materials or by at least 6 inches of compacted non-asbestos-containing materials with a permanent cover of vegetation over the area.

[40 CFR 61.151(a)], [40 CFR 61.154(c) and (g)], [OAC rule 3745-20-06(B)(3)], and [OAC rule 3745-20-07(A)(2) and (3)]

d) Monitoring and/or Recordkeeping Requirements

(1) The nitrogen or oxygen concentration shall be monitored at each landfill gas collection well as required in this permit and shall be determined as follows:

a. The nitrogen level shall be determined using Method 3C from 40 CFR Part 60, Appendix A, unless an alternative test method is approved by the Director.

b. The oxygen level shall be determined by an oxygen meter using Method 3A or 3C from 40 CFR Part 60, Appendix A, unless an alternative test method is approved by the Director, except that:

i. the span shall be set so that the regulatory limit is between 20 and 50 percent of the span;

ii. a data recorder is not required;

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

iv. a calibration error check is not required; and

v. the allowable sample bias, zero drift, and calibration drift are plus or minus 10 percent.

[40 CFR 60.753(c)]

(2) The permittee shall maintain the following information for the life of the control equipment (recovery and treatment system and/or flare) as measured during the initial performance test or compliance demonstration:

a. the maximum expected gas generation flow rate, in cubic meters/year as calculated based on the following:

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

$Q_m = 2L_o \text{ x } R \text{ x } \{(e^{-kc}) - (e^{-kt})\}$

Where:

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

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

R = average annual acceptance rate, megagram 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:

$$Q_m = \sum_{i=1}^{n} 2kL_0M_i \text{ x } (e^{-kti})$$

Where:

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

k = methane generation rate constant, per year;

L_o = methane generation potential, cubic meters per mega gram solid waste;

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

t_i = age of the ith section, in years.

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 above. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using either of the equations above or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use 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. For the purposes of determining sufficient density of gas collectors for compliance with a collection system designed to handle the maximum expected landfill gas flow rate, the permittee shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Director, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

[40 CFR 60.755(a)(1) and (2)]

(3) The permittee shall maintain the following instrumentation specifications and procedures in order to demonstrate compliance with surface methane monitoring:

a. The portable analyzer for surface methane shall meet the instrument specifications provided in section 3 of Method 21 of Appendix A of 40 CFR Part 60, except that "methane" shall replace all references to VOC.

b. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.

c. To meet the performance evaluation requirements in section 3.1.3 of Method 21 of Appendix A of 40 CFR Part 60, the instrument evaluation procedures of section 4.4 of Method 21 of Appendix A of 40 CFR Part 60 shall be used.

d. The calibration procedures provided in section 4.2 of Method 21 of Appendix A of 40 CFR Part 60 shall be followed immediately before commencing a surface monitoring survey.

[40 CFR 60.755(d)]

(4) The permittee shall maintain up-to-date, readily accessible, continuous records of any loss of flame to the open flare or flare pilot and/or any incident(s) where the flare is bypassed, using one of the following monitoring systems installed for this purpose:

a. A/the heat sensing device at the pilot light or flame shall indicate the continuous presence of a flame and maintain a record of the total time of any loss of flame.

b. A/the gas flow rate measuring device shall record the flow to the flare at least every 15 minutes and shall document the total time of any bypass to the open flare.

c. The bypass line valve shall be locked-out in the closed position and a monthly visual inspection shall document that it is always closed. A record of the total time of any bypass, where the lock-out is removed, shall be maintained along with the records of the monthly inspections of the lock-out device.

[40 CFR 60.758(c)(2) and (4)]

(5) The permittee shall 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; or, if an enclosed combustor is employed, a temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of +/- 1 percent of the temperature being measured expressed in degrees Celsius or +/- 0.5 degrees Celsius, whichever is greater [a temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts]. If an enclosed combustor is employed, the permittee shall collect and record the following information:

i. all 3-hour blocks of time during which the average combustion temperature within the enclosed combustor was more than 28 degrees Celsius below the average temperature measured during the most recent emission testing that demonstrated the emissions unit was in compliance; and

ii. a log of the downtime for the capture (collection system), control device, and associated monitoring equipment while the emissions unit was in operation.

(6) A device that records flow to or bypass of the flare. The permittee shall either:

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

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

c. The permittee seeking to demonstrate compliance with the landfill gas collection and control requirements through use of an open flare, shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed below, as measured during the initial performance test or compliance determination:

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

ii. all visible emissions readings;

iii. heat content determinations;

iv. flow rate or bypass flow rate measurements;

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

vi. continuous records of the flare pilot flame or flare flame monitoring; and

vii. records of all periods of operations during which the pilot flame of the flare flame is absent.

Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

[40 CFR 60.758(b)(4)]

(7) The permittee shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed below, as measured during the initial performance test or compliance determination:

a. the maximum expected gas generation flow rate, as calculated in 40 CFR 60.755(a)(1) and as required in this permit; and

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

Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

[40 CFR 60.758(b)(1)]

(8) The permittee of a controlled landfill subject to the provisions of this subpart shall keep for 5 years, up-to-date, readily accessible continuous records of the control equipment operating parameters specified to be monitored in 40 CFR 60.756, as well as, up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

[40 CFR 60.758(c)]

(9) The permittee shall keep 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.

[40 CFR 60.758(d)]

(10) The permittee shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under 40 CFR 60.755(b) and as required in this permit.

[40 CFR 60.758(d)(1)]

(11) The permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing and/or nondegradable wastes, excluded from collection as provided in 40 CFR 60.759(a)(3)(i), as well as any nonproductive areas excluded from collection as provided in 40 CFR 60.759(a)(3)(ii).

[40 CFR 60.758(d)(2)]

(12) The permittee shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards contained in 40 CFR 60.753 and this permit, the reading in the subsequent month, whether or not the second reading is an exceedance, and the location of each exceedance.

[40 CFR 60.758(e)]

(13) The permittee shall monitor surface concentrations of methane on a quarterly basis according to the instrument specifications and procedures provided below. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may revert to annual monitoring; however, during the annual monitoring, any methane reading of 500 ppm or more above background detected, returns the frequency for that landfill back to quarterly monitoring. The permittee shall monitor surface concentrations of methane on a quarterly basis as follows:

a. surface concentrations of methane shall be monitored, in ppm, along the entire perimeter of the collection area and along a pattern spaced 30 meters apart (or a site-specific established spacing) and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover 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; and

d. any reading of 500 ppm 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):

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 remonitored within 10 calendar days of detecting the exceedance.

iii. If the remonitoring 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 remonitoring 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. No further monitoring of that location is required until the new well(s) or collection device has been installed.

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

v. For any location where the monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance.

vi. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding time line for installation may be submitted to the Ohio EPA for approval.

e. The monitor used shall meet the requirements of 40 CFR 60.755(c).

[40 CFR 60.755(c)] and [40 CFR 60.756(f)]

(14) The permittee shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in this permit. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

(15) The permittee shall implement a program to monitor for the integrity of the cover on a monthly basis and implement cover repairs as necessary.

[40 CFR 60.755(c)(5)]

(16) The permittee shall install a sampling port and a thermometer or other temperature measuring device, or an access port for temperature measurements at each wellhead.

a. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with A.I.2.d.i(c), the permittee shall measure

gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under A.II.1. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Director for approval. The permittee is not required to expand the system a during the first 180 days after gas collection system startup.

[40 CFR 60.755(a)(3) and (4)]

b. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the permittee shall monitor each well monthly for temperature and nitrogen or oxygen as provided in A.II.2. If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative time line for correcting the exceedance may be submitted to the Director for approval.

[40 CFR 60.755(a)(5)]

(17) The permittee shall keep up-to-date, readily accessible records, for the life of the enclosed combustor control equipment, and as measured during the initial performance test or compliance determination, of the following records:

a. the average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test; and

b. the percent reduction of NMOC Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. achieved by the combustor and determined as specified in 40 CFR 60.752(b)(2)(iii)(B) and this permit.

Records of the control device vendor specifications shall be maintained until removal.

[40 CFR 60.758(b)(2)]

(18) The permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which includes: 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 paper copy 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.

(19) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from asbestos-containing waste materials during on-site transportation, transfer, unloading,

deposition, or compacting operations. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[40 CFR 61.154(a), in part] and [OAC rule 3745-20-06(A) and (B)(1)]

(20) The permittee shall maintain a record of the inspection required in the Additional Terms and Conditions for each load of asbestos-containing material delivered to the facility. These records shall be maintained for a period of 2 years.

[40 CFR 61.154(e)(4)], [OAC rule 3745-20-05(E)(5)], and [OAC rule 3745-20-06(C)(1) and (3)]

(21) The permittee shall maintain a permanent record of the location, depth and area, and quantity in cubic yards of all asbestos-containing waste materials within the disposal site, on a map or a diagram of the disposal area.

[40 CFR 61.154(f) and (g)] and [OAC rule 3745-20-06(C)(2)]

(22) The permittee shall require that all asbestos waste shipments received be accompanied by a waste shipment record. The waste shipment records shall include the following information:

a. the name of the work site or facility where the asbestos-containing waste was generated and the mailing address and telephone number of the facility owner;

b. the name, mailing address and telephone number of the owner or operator (waste generator) responsible for handling, packing, marking, and labeling the asbestos-containing waste material;

c. the name, mailing address, telephone number and site location of the active waste disposal site designated by the generator to receive the asbestos-containing waste material for disposal;

d. the name and address of the local, state or U.S. EPA regional agency responsible for administering the National Emission Standards for Hazardous Air Pollutants (NESHAP) program for asbestos;

e. a description of the asbestos-containing waste materials included in the waste shipment;

f. the number and type of containers included in the waste shipment;

g. the approximate volume of asbestos-containing waste material included in the waste shipment, in cubic yards;

h. special handling instructions or additional information relative to the waste shipment the waste generator may specify;

i. a certification that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations;

j. the name, address and phone number of the transporter;

k. a signature by the transporter, to acknowledge receipt of the asbestos-containing waste shipment, described by the waste generator for the conditions recorded on the waste shipment record;

l. a discrepancy indication space to be completed by the transporter or waste shipment owner or operator if any improperly contained asbestos waste is observed or if there is any discrepancy in the quantity of asbestos shipped and the quantity of asbestos waste received at the asbestos waste disposal site;

m. the name and telephone number of the disposal site operator;

n. a signature by the waste disposal site operator to acknowledge receipt of the asbestos-containing waste shipment described by the waste generator in the conditions above, except as noted in the discrepancy indication space; and

o. the date of receipt of the asbestos-containing waste.

Significant amounts of improperly contained waste shall be reported in writing to the appropriate Ohio EPA District Office or local air agency by the following working day. The report shall include a copy of the waste shipment. The waste shipment record forms shall be retained at the facility for at least two years, and shall be made available for inspection upon request.

[40 CFR 61.154(e)] and [OAC rule 3745-20-05(E)]

(23) The permittee shall maintain records of the following information:

a. the date and reason that any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;

b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;

c. the dates the control measures were implemented; and

d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

This information shall be kept for (i) the solid waste unloading operations, (ii) the landfill access roads, and (iii) active landfill working face surface (wind erosion), and shall be

updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

(24) The permittee shall inspect each load of asbestos containing-material delivered to this facility as follows:

a. The inspection shall consist of visual examination to ensure that each shipment of asbestos-containing materials is received in intact, leak-tight containers labeled with appropriate hazard warning labels, the name of the waste generator, and the location of waste generation. The inspector also shall determine whether the waste shipment records (WSR) accompany the consignment and accurately describe the waste material and quantity.

b. If on the basis of the inspection, the asbestos-containing waste material is found to be improperly received, the load shall be disposed of in accordance with the procedures in the "Asbestos Spill Contingency Plan," and the discrepancy notation shall be made on the waste shipment record.

c. The owner or on-duty operator shall notify the Ohio EPA of any load of asbestos-containing material which is rejected, or non-conforming in accordance with the Asbestos Spill Contingency Plan. Notification shall be provided as soon as possible by a phone contact, followed in writing the next working day by providing a copy of the waste shipment record, if available, or when waste is not shipped with a WSR, by providing available information on vehicle identification, source of the load, a description of the load, nature of discrepancy, and the location of disposal. If possible, non-conforming loads of suspect friable material shall be detained or the location of disposal protected from damage until the Ohio EPA informed and provided the opportunity to inspect.

(25) The permittee shall maintain records of the following information:

a. the waste shipment record form for each shipment of asbestos-containing materials; and

b. the location, depth and area, and quantity in cubic yards of all asbestos-containing materials within the disposal site, on a map or diagram, or a 3D grid log of the disposal area.

e) Reporting Requirements

(1) The following shall constitute an exceedance for the enclosed combustor and shall be reported under 40 CFR 60.757(f) and as required in this permit: all 3-hour periods of operation during which the average combustion temperature was more than 28 degrees Celsius below the average combustion temperature during the most recent performance test that demonstrated compliance.

[40 CFR 60.758(c)(1)(i)]

(2) The permittee shall submit semiannual reports to the Director, for the landfill collection and control system, which includes the following recorded information:

a. value and length of time for each exceedance of the applicable parameters monitored under 40 CFR 60.756, at each wellhead and as required for the control equipment, which would include:

   i. a positive pressure was not corrected within 15 calendar days, when not meeting the three exceptions in 40 CFR 60.753(b) (fire hazard, synthetic cover, or a decommissioned well);

   ii. the temperature and oxygen or nitrogen exceeded the applicable limits and was not corrected within 15 calendar days;

   iii. for enclosed combustors, excluding boilers and process heaters with design heat input capacity of 150 million Btu/hour or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 degrees Celsius below the average combustion temperature during the most recent performance test demonstrating compliance; and

   iv. any loss of flame to the flare, as detected by the heat sensing device;

b. description and duration of all periods when the gas stream is diverted from the control device through a bypass line or any indication of periods of bypass of the control device;

c. description and duration of all periods when the control device was not operating for a period exceeding 1 hour and 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 ppm methane surface concentration, over the background level, and the concentration recorded at each location for which an exceedance was recorded in the previous month; and

f. the date of installation and the location of each well or collection system expansion added.

This annual report required by 40 CFR 60.757(f) shall be submitted every six months, as required per 40 CFR 63.1980(a), including information on all deviations that occurred during the 6-month reporting period. Deviations for continuous emission monitors or numerical continuous parameter monitors shall be determined using a 3-hour monitoring block average. These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous six calendar months.

[40 CFR 63.1955(c) and 63.1980(a), 40 CFR 60.757(f)]

(3) The permittee shall submit an equipment removal report to the Division of Air Pollution Control at the appropriate Ohio EPA office of jurisdiction, 30 days prior to removal or cessation of operation of the control equipment. The Ohio EPA may request additional information as may be necessary to verify that all of the conditions for removal in 40 CFR 60.752(b)(2)(v) have been met. The equipment removal report shall contain the following information, as specified in 40 CFR 60.757(e)(1):

a. a copy of the closure report;

b. a copy of the initial performance test report demonstrating that the 15-year minimum control period has expired; and

c. dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

[40 CFR 60.757(e)]

(4) The permittee shall submit a closure report to the Division of Air Pollution Control at the appropriate Ohio EPA office of jurisdiction, within 30 days of waste acceptance cessation. Permanent closure shall be conducted in accordance with the requirements of 40 CFR 258.60; and the Ohio EPA may request additional information, as may be necessary, to verify that all of these conditions are met. If a closure report has been submitted to the Ohio EPA, no additional wastes may be placed into the landfill without filing a notification of modification as described in 40 CFR 60.7(a)(4).

[40 CFR 60.757(d)]

(5) The permittee shall submit quarterly written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from asbestos-containing waste materials during on-site transportation, transfer, unloading, deposition, and/or compacting operations and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31, April 30, July 31 and October 31 and shall cover the previous calendar quarters.

[40 CFR 61.154(a), in part] and [OAC rule 3745-20-06(A) and (B)(1), in part]

(6) The permittee shall submit quarterly reports summarizing the asbestos disposal activities; these reports shall contain the following information:

a. the name, address and location of the facility, the calendar period covered by the report, and any changes in the methods of storage or the disposal operations; and

b. a list of all asbestos-containing waste consignments received including: the date received, the name of the waste generator, the name and location of the facility where the load originated, the quantity of asbestos, and any discrepancy or non-conformity discovered.

These quarterly reports shall be submitted no later than January 31, April 30, July 31 and October 31 and shall cover the previous calendar quarters.

[40 CFR 61.154(i), in part] and [OAC rule 3745-20-05, in part]

(7) As soon as possible and no longer than 30 days after receipt of the asbestos-containing waste material, the permittee shall send a copy of the signed waste shipment record to the waste generator.

[40 CFR 61.154(e)(2)] and [OAC rule 3745-20-06(E)(2)(b)(ii)]

(8) Upon discovery of a discrepancy between the quantity of asbestos-containing waste material designated on a waste shipment record and the quantity actually received, the permittee shall attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the State, local, district, or U.S. EPA regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and the Director (the appropriate Ohio EPA District Office or local air agency) if the waste was received from out of State. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.

[40 CFR 61.154(e)(3)] and [OAC rule 3745-20-05(E)(2)(b)(iii)]

(9) The permittee shall submit, upon closure of the facility, a copy of the records of the asbestos waste disposal locations and quantities.

[40 CFR 61.154(h)] and [OAC rule 3745-20-06(E)]

(10) The permittee shall notify the Director, in writing, at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. The following information shall be included in the notice:

a. scheduled starting and completion dates;

b. reason for disturbing the waste;

c. procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material (if deemed necessary, the Director may require changes in the proposed emission control procedures); and

d. location of any temporary storage site and the final disposal site.

[40 CFR 61.154(j)], [OAC rule 3745-20-06(F)], and [OAC rule 3745-20-07(D)]

(11) The permittee shall notify the Director of any load of asbestos-containing material which is rejected, or any non-conforming load disposed of in accordance with the "Asbestos Spill Contingency Plan." Notification shall be provided as soon as possible by a phone contact, followed in writing by the next working day. The written notification shall provide a copy of the waste shipment record, if available, or when waste is not shipped with a waste shipment record, provide available information concerning vehicle identification, source of the load, a description of the load, nature of discrepancy, and the location of disposal. If possible, non-conforming loads of suspect friable material shall be detained, or the location of disposal protected from damage, until the appropriate Ohio EPA District Office or local air agency is informed and provided the opportunity to inspect.

[40 CFR 61.154(e), in part] and [OAC rule 3745-20-05(E)(2)(iii), in part]

f) Testing Requirements

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

a. The permittee shall calculate the NMOC emission rate for purposes of determining when the system can be removed, as provided in 40 CFR 60.752(b)(2)(v), using the following procedures to calculate the mass emission rate of NMOC and by applying the testing results in the following equation:

MNMOC = 0.00189 (QLFG) CNMOC

Where:

MNMOC = mass emission rate of NMOC, megagrams per year;

QLFG = flow rate of landfill gas, cubic meters per minute; and

CNMOC = NMOC concentration, parts per million by volume as hexane.

b. The flow rate of landfill gas, QLFG, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of Appendix A of 40 CFR Part 60.

c. The average NMOC concentration, CNMOC, shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 from 40 CFR Part 60, Appendix A. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP–42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six to convert from CNMOC as carbon to CNMOC as hexane.

The permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator of the U.S. Environmental Protection Agency.

[40 CFR 60.754(b)]

d. The net heating value of the landfill gas being combusted at the flare shall be calculated as follows:

$$H_T = k \sum_{i=1}^{n} \mathrm{C_i}\,\mathrm{H_i}$$

Where:

H_T = net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 degrees Celsius and 760 mm Hg, but the

standard temperature of 20 degrees Celsius is used for determining the volume corresponding to one mole;

k = constant, 1.740 x 10^{-7} (1/ppm) (g mole/scm) (MJ/kcal), where the standard temperature for "g mole/scm" is 20 degrees Celsius;

C_i = concentration of sample component "i" in ppm on a wet basis; and

H_i = net heat of combustion of sample component "i", kcal/g mole at 25 degrees Celsius and 760 mm Hg. The heats of combustion may be determined using ASTM D4809-95 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated.

The conversion factor of "26.84 Btu scm/MJ scf" can be used to convert the net heating value of the gas (H_T) from MJ/scm to Btu/scf.

[40 CFR 60.18], [40 CFR 60.754(e)], and [OAC rule 3745-21-10(P)(2)]

e. The actual exit velocity of the flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure) of the flare header or headers that feed the flare, as determined by Reference Methods 2, 2A, 2C, or 2D, as appropriate, by the unobstructed (free) cross sectional area of the flare tip.

The conversion factor of "3.281 ft/m" can be used to convert the velocity from m/sec to ft/sec.

[40 CFR 60.18] and [OAC rule 3745-21-10(P)(3)]

f. The permittee shall calculate the NMOC emission rate for purposes of determining when the system can be removed, as provided in 40 CFR 60.752(b)(2)(v), using the following procedures to calculate the mass emission rate of NMOC and by applying the testing results in the following equation:

MNMOC = 0.00189 (QLFG) CNMOC

Where:

MNMOC = mass emission rate of NMOC, megagrams per year;

QLFG = flow rate of landfill gas, cubic meters per minute; and

CNMOC = NMOC concentration, parts per million by volume as hexane.

g. The flow rate of landfill gas, QLFG, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of Appendix A of 40 CFR Part 60.

h. The average NMOC concentration, CNMOC, shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 from 40 CFR Part 60, Appendix A. If using Method 18, the

minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP–42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six to convert from CNMOC as carbon to CNMOC as hexane.

The permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator of the U.S. Environmental Protection Agency.

[40 CFR 60.754(b)]

i. Emission Limitation:

There shall be no visible emissions from asbestos-containing waste materials during on-site transportation, transfer, unloading, deposition or compacting operations.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.

[40 CFR 61.154], [OAC rule 3745-20-06], and [OAC rule 3745-17-08]

g) Miscellaneous Requirements

(1) None.