



*Mitchell E. Daniels, Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
(800) 451-6027  
www.IN.gov/idem

TO: Interested Parties / Applicant

DATE: October 17, 2006

RE: BFI Waste Systems fo North America, Inc. / 163-17692-00114

FROM: Nisha Sizemore  
Chief, Permits Branch  
Office of Air Quality

### **Notice of Decision: Approval – Effective Immediately**

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency  
401 M Street  
Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.



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**PART 70 OPERATING PERMIT RENEWAL  
OFFICE OF AIR QUALITY  
AND EVANSVILLE EPA**

**BFI Waste Systems of North America, Inc.  
2020 Laubscher Road  
Evansville, Indiana 47720**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

**The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. 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 conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.**

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T163-17692-00114	
Original signed by:  Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: October 17, 2006  Expiration Date: October 17, 2011

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

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The Permittee owns and operates a stationary municipal solid waste landfill.

Responsible Official:	Vice President
Source Address:	2020 Laubscher Road, Evansville, Indiana 47720
Mailing Address:	12976 St. Charles Rock Road, Bridgeton, Missouri 63044
General Source Phone Number:	(812) 464-0084
SIC Code:	4953
County Location:	Vanderburgh
Source Location Status:	Nonattainment for 8-hour ozone standard Nonattainment for PM2.5 standard Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules; Minor Source, Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) municipal solid waste landfill, identified as Emissions Unit # 1, constructed in 1979, modified in 1995 and 1998, with a maximum design capacity of 14,450,990 Megagrams.
- (b) One (1) enclosed flare, identified as Emissions Unit # 2, constructed in 1991, with a maximum capacity of 3,400 standard cubic feet per minute (scfm) of landfill gas.
- (c) Two (2) Waukesha 135 HP landfill gas fueled engine/generator sets, identified as Emissions Units # 3 and # 4, constructed in 1996, with a maximum capacity of 1.2 MMBtu/hour each.

### A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

Paved and unpaved roads and parking lots with public access. [326 IAC 6-4 and 326 IAC 6-5]

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

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This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## **SECTION B GENERAL CONDITIONS**

### **B.1 Definitions [326 IAC 2-7-1]**

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Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

### **B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5] [326 IAC 2-7-4(a)(1)(D)] [IC 13-15-3-6(a)]**

- 
- (a) This permit, T163-17692-00114, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, and Evansville EPA, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

### **B.3 Term of Conditions [326 IAC 2-1.1-9.5]**

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Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

### **B.4 Enforceability [326 IAC 2-7-7]**

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- (a) Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM and Evansville EPA, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.
- (b) Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by Evansville EPA.

### **B.5 Severability [326 IAC 2-7-5(5)]**

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The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### **B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]**

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

### **B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]**

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- (a) The Permittee shall furnish to IDEM, OAQ, and Evansville EPA, within a reasonable time, any information that IDEM, OAQ, and Evansville EPA, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, and Evansville EPA, copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a

claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

and

Evansville EPA  
C.K. Newsome Community Center  
100 East Walnut Street, Suite 100  
Evansville, IN 47713

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Evansville EPA, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;

- (3) Whether compliance was continuous or intermittent;
- (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
- (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, Evansville EPA, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ, and Evansville EPA, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and Evansville EPA. IDEM, OAQ and Evansville EPA may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.11 Emergency Provisions [326 IAC 2-7-16]**

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM,

OAQ, Evansville EPA and Southwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

IDEM, OAQ

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or

Telephone Number: 317-233-0178 (ask for Compliance Section)

Facsimile Number: 317-233-6865

Evansville EPA

Telephone Number: 812-435-6145

Facsimile Number: 812- 435-6155

Southwest Regional Office

Telephone Number: 1-888-672-8323 or 1-812-380-2305

Facsimile Number: 812-380-2304

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management

Compliance Branch, Office of Air Quality

100 North Senate Avenue

Indianapolis, Indiana 46204-2251

and

Evansville EPA

C.K. Newsome Community Center

100 East Walnut Street, Suite 100

Evansville, IN 47713

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ, and Evansville EPA may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, and Evansville EPA, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.12 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.  
  
This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, or Evansville EPA, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
  - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
  - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

- (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
- (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, or Evansville EPA, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, or Evansville EPA, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T163-17692-00114 and issued pursuant to permitting programs approved into the state implementation plan have been either
  - (1) incorporated as originally stated,
  - (2) revised under 326 IAC 2-7-10.5, or
  - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

and

Evansville EPA  
C.K. Newsome Community Center  
100 East Walnut Street, Suite 100  
Evansville, IN 47713

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the

applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination**  
[326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, or Evansville EPA determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ, or Evansville EPA to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, or Evansville EPA at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, or Evansville EPA may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

**B.17 Permit Renewal** [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and Evansville EPA and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

and

Evansville EPA  
C.K. Newsome Community Center  
100 East Walnut Street, Suite 100  
Evansville, IN 47713

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Evansville EPA on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, and Evansville EPA, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, and Evansville EPA, any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251
- and
- Evansville EPA  
C.K. Newsome Community Center  
100 East Walnut Street, Suite 100  
Evansville, IN 47713
- Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit

modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

**B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]**

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(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

and

Evansville EPA  
C.K. Newsome Community Center  
100 East Walnut Street, Suite 100  
Evansville, IN 47713

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b), (c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, and Evansville EPA in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326

IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

**B.21 Source Modification Requirement [326 IAC 2-7-10.5]**

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A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

**B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]**

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, and Evansville EPA, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize

any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

and

Evansville EPA  
C.K. Newsome Community Center  
100 East Walnut Street, Suite 100  
Evansville, IN 47713

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, and Evansville EPA within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, or Evansville EPA the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314][326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds Per hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on November 10, 1997. The plan is included as Attachment A to this permit.

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

## Testing Requirements [326 IAC 2-7-6(1)]

### C.8 Performance Testing [326 IAC 3-6]

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

and

Evansville EPA  
C.K. Newsome Community Center  
100 East Walnut Street, Suite 100  
Evansville, Indiana 47713

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ and the Evansville EPA, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, and the Evansville EPA, if the Permittee submits to IDEM, OAQ, and the Evansville EPA, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

## Compliance Requirements [326 IAC 2-1.1-11]

### C.9 Compliance Requirements [326 IAC 2-1.1-11]

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

## Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

### C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

and

Evansville EPA  
C.K. Newsome Community Center  
100 East Walnut Street, Suite 100  
Evansville, Indiana 47713

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

**C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

**C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

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(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

**Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]**

**C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

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Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on November 12, 1997.

(b) Upon direct notification by IDEM, OAQ, and the Evansville EPA, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level.  
[326 IAC 1-5-3]

**C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]**

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If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

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- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
  - (1) initial inspection and evaluation;
  - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;
  - (2) review of operation and maintenance procedures and records;
  - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
  - (1) monitoring data;
  - (2) monitor performance data, if applicable; and
  - (3) corrective actions taken.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]  
[326 IAC 2-7-6]

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, and the Evansville EPA, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)]  
[326 IAC 2-6]

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- (a) Pursuant to 326 IAC 2-6-3(b)(3), starting in 2006 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
  - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

and

Evansville EPA  
C.K. Newsome Community Center  
100 East Walnut Street, Suite 100  
Evansville, Indiana 47713

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Evansville EPA on or before the date it is due.

C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

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- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or Evansville EPA makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or Evansville EPA within a reasonable time.

- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

**C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]**

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- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

and

Evansville EPA  
C.K. Newsome Community Center  
100 East Walnut Street, Suite 100  
Evansville, Indiana 47713

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and the Evansville EPA, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

**Stratospheric Ozone Protection**

**C.20 Compliance with 40 CFR 82 and 326 IAC 22-1**

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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

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

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (a) One (1) municipal solid waste landfill, identified as Emissions Unit # 1, constructed in 1979, modified in 1995 and 1998, with a maximum design capacity of 14,450,990 Megagrams.
- (b) One (1) enclosed combustor, identified as Emissions Unit # 2, constructed in 1991, with a maximum capacity of 3,400 standard cubic feet per minute (scfm) of landfill gas.
- (c) Two (2) Waukesha 135 HP landfill gas fueled engine/generator sets, identified as Emissions Units # 3 and # 4, constructed in 1996, with a maximum capacity of 1.2 MMBtu/hr each.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.1.1 General Provisions Relating to NSPS and NESHAP [326 IAC 12-1-1] [326 IAC 8-8.1] [40 CFR Part 60, Subpart A] [326 IAC 20-1-1] [40 CFR 63, Subpart A] [326 IAC 14-1-1][40 CFR Part 61, Subpart A]

- (a) The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1-1, apply to the facilities described in this section except when otherwise specified in 40 CFR Part 60, Subpart WWW.
- (b) The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1-1, apply to the facilities described in this section except when otherwise specified in 40 CFR Part 63, Subpart AAAA.
- (c) The provisions of 40 CFR Part 61, Subpart A - General Provisions, which are incorporated as 326 IAC 14-1-1, apply to the landfill described in this section except when otherwise specified in 40 CFR Part 61, Subpart M.

#### D.1.2 Operational Standards for Collection and Control Systems [40 CFR 60.753] [326 IAC 8-8.1] [326 IAC 12]

To comply with 40 CFR 60.752 (b)(2)(ii), the Permittee shall:

- (a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the municipal solid waste landfill in which solid waste has been in place for five years if active or 2 years or more if closed or at final grade.
- (b) Operate the collection system with negative pressure at each wellhead except under the following conditions:
  - (1) Fire or increased well temperature. The Permittee shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in 40 CFR 60.757(f)(1).
  - (2) Use of a geomembrane or synthetic cover. The Permittee shall develop acceptable pressure limits in the design plan.
  - (3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the IDEM, OAQ.

- (c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55°C 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.
  - (1) The nitrogen level shall be determined using Method 3C, unless an alternative method is established as allowed by 40 CFR 60.752(b)(2)(i).
  - (2) Unless an alternative test method is established as allowed by 40 CFR 60.752(b)(2)(i), the oxygen level shall be determined by an oxygen meter using Method 3A except that; the span shall be set so that the regulatory limit is between 20 and 50 percent of the span; a data recorder is not required; only two calibration gases are required, a zero and span, and ambient air may be used as the span; a calibration error check is not required; the allowable sample bias, zero drift, and calibration drift are ±10 percent.
- (d) 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 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.
- (e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with 40 CFR 60.752(b)(2)(iii). 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 one hour.
- (f) Operate the control system at all times when the collected gas is routed to the system.
- (g) If monitoring demonstrates that the operational requirements in 40 CFR 60.753(b), (c), or (d) are not met, corrective action shall be taken as specified in 40 CFR 60.755(a)(3) through (5) or 40 CFR 60.755(c). If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements in 40 CFR 60.753.

D.1.3 Monitoring [40 CFR 60.756] [326 IAC 8-8.1] [326 IAC 12]

Except as provided in 40 CFR 60.752(b)(2)(i)(B),

- (a) The Permittee complying with 40 CFR 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device or an access port for temperature measurements at each wellhead and:
  - (1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in 40 CFR 60.755(a)(3);
  - (2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in 40 CFR 60.755(a)(5); and

- (3) Monitor temperature of the landfill gas on a monthly basis as provided in 40 CFR 60.755(a)(5).
- (b) The Permittee complying with 40 CFR 60.752(b)(2)(iii) using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.
  - (1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of  $\pm 1$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 0.5$  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.
  - (2) A device that records flow to or bypass of the control device. The Permittee shall either:
    - (A) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or
    - (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 demonstrating compliance with 40 CFR 60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in 40 CFR 60.755(d).

D.1.4 Municipal Solid Waste Landfill NESHAP [326 IAC 20] [40 CFR 63, Subpart AAAA]

Pursuant to 40 CFR 63.1955, the Permittee shall:

- (a) Comply with the requirements of 40 CFR 60, Subpart WWW.
- (b) Comply with the general and continuing compliance requirements in 40 CFR 63.1960 through 40 CFR 63.1985 for the collection and control system.
- (c) For approval of collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, the Permittee must follow the procedures in 40 CFR 60.752(b)(2). The Permittee shall comply with the startup, shutdown, and malfunction (SSM) requirements in Subpart A of 40 CFR 63 as specified in Table 1 of 40 CFR 63, Subpart AAAA and all affected sources must submit compliance reports every 6 months as specified in 40 CFR 63.1980(a) and (b), including information on all deviations that occurred during the 6-month reporting period. Deviations (as defined in 40 CFR 63.1965) for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3 hour monitoring block average (as defined in 40 CFR 63.1975).

D.1.5 NESHAP for Active Asbestos Waste Disposal Sites [40 CFR 61.154, Subpart M] [326 IAC 14]

Pursuant to the National Emissions Standards for Hazardous Air Pollutants 326 IAC 14-2-1 and 40 CFR 61.154, Subpart M, any active waste disposal site that receives asbestos-containing waste material must either:

- (a) Allow no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or comply with (b) or (c) below.

- (b) At least once every 24-hour period, asbestos-containing waste material that has been deposited during the previous 24-hour period must:
  - (1) be covered with at least 15 centimeters (6 inches) of compacted nonasbestos containing material, or
  - (2) be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the IDEM, OAQ. Any used, spent, or other waste oil is not considered a dust suppression agent.
- (c) Use an alternate emissions control method that has received prior written approval by the IDEM, OAQ according to the procedures described in 40 CFR 61.149(c)(2).
- (d) Also, unless a natural barrier deters access by the general public, warning signs and fencing must be installed or the requirements of paragraph (b)(1) above must be met. The perimeter of the disposal site must be fenced in a manner adequate to deter access by the general public. The warning signs must:
  - (1) Be displayed at all entrances and at intervals of 100 meters (330 feet) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited.
  - (2) Be posted in such a manner and location that a person can easily read the legend;
  - (3) Conform to the requirements of 51cm x 36 cm upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and
  - (4) Display the information contained in the legend provided in 40 CFR 61.154(b)(1)(iii).

**D.1.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control devices.

**Compliance Determination Requirements**

**D.1.7 Compliance Provisions [40 CFR 60.755] [326 IAC 8-8.1] [326 IAC 12]**

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- (a) Except as provided in 40 CFR 60.752(b)(2)(i)(B), the Permittee shall determine whether the gas collection system is in compliance with 40 CFR 60.752(b)(2)(i) as follows:
    - (1) For the purpose of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with 60.752(b)(2)(ii)(A)(1), one of the following equations shall be used. The k and Lo kinetic factors should be those published in the most recent Compilation of Air Pollution Emission Factors (AP-42) or other site-specific values demonstrated to be appropriate and approved by the IDEM, OAQ. If k has been determined as specified in 40 CFR 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

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

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

where,

$Q_m$  = maximum expected gas generation flow rate, cubic meters per year  
 $Lo$  = methane generation potential, cubic meters per megagram solid waste  
 $R$  = average annual acceptance rate, megagrams per year  
 $k$  = methane generation rate constant, year<sup>-1</sup>  
 $t$  = 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.  
 $c$  = time since closure, years (for an active landfill  $c = 0$  and  $e^{-kc} = 1$ )

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

$$Q_m = \sum_{i=1}^n 2 k Lo Mi (e^{-kti})$$

where,

$Q_m$  = maximum expected gas generation flow rate, cubic meters per year  
 $k$  = methane generation rate constant, year<sup>-1</sup>  
 $Lo$  = methane generation potential, cubic meters per megagram solid waste  
 $M_i$  = mass of solid waste in the  $i$ th section, megagrams  
 $t_i$  = age of the  $i$ th section, 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 in 40 CFR 60.755(a)(1)(i) and (ii). If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in 40 CFR 60.755(a)(1)(i) or (ii) 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.

- (2) For the purposes of determining sufficient density of gas collector for compliance with 40 CFR 60.752 (b)(2)(ii)(A)(2), the Permittee shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the IDEM, OAQ, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.
- (3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with 40 CFR 60.752(b)(2)(ii)(A)(3), 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 five (5) calendar days, except for the three conditions allowed under 40 CFR 60.753(b). If negative pressure cannot be achieved without excess air infiltration within fifteen (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 IDEM, OAQ for approval.

- (4) The Permittee is not required to expand the system as required in 40 CFR 60.755(a)(3) during the first 180 days after gas collection system start-up.
  - (5) 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 40 CFR 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within five (5) calendar days. If correction of the exceedance cannot be achieved within fifteen (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 timeline for correcting the exceedance may be submitted to the IDEM, OAQ for approval.
  - (6) The Permittee demonstrating compliance with 40 CFR 60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in 40 CFR 60.759 shall provide information satisfactory to the IDEM, OAQ as specified in 40 CFR 60.752 (b)(2)(i)(C) demonstrating that off-site migration is being controlled.
- (b) For purposes of compliance with 40 CFR 60.753(a), the Permittee shall place each well or design component of a controlled landfill as specified in the approved design plan as provided in 40 CFR 60.752(b)(2)(i). 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 (5) years or more if active or two (2) years or more if closed or at final grade.
- (c) The following procedures shall be used for compliance with the surface methane operational standard as provided in 40 CFR 60.753 (d):
- (1) After installation of the collection system, the Permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 40 CFR 60.755(d).
  - (2) 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 perimeter wells.
  - (3) Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of Appendix A of 40 CFR 60, except that the probe inlet shall be placed within five (5) to ten (10) centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.
  - (4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in 40 CFR 60.755(c)(4)(i) through (v) should be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of 40 CFR 60.753(d).

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

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

If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within ten (10) days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph 40 CFR 60.755(c)(4)(v) shall be taken, and no further monitoring of that location is required until the action specified in 40 CFR 60.755(c)(4)(v) has been taken.

Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the ten (10)-day re-monitoring specified in 40 CFR 60.755(c)(4)(ii) or (iii) shall be re-monitored one (1) month from the initial exceedance. If the one (1)-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the one (1)-month re-monitoring shows an exceedance, the actions specified in 40 CFR 60.755(c)(4)(iii) or (v) shall be taken.

For any location where monitored methane concentration equals or exceeds 500 parts per million 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. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the IDEM, OAQ for approval.

- (5) The Permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.
- (d) To comply with the provisions of 40 CFR 60.755(c), the Permittee shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:
- (1) The portable analyzer shall meet the instrument specifications provided in Section 3 of Method 21 of Appendix A of 40 CFR 60, except that "methane" shall replace all references to volatile organic compound (VOC).
  - (2) The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.
  - (3) To meet the performance evaluation requirements in section 3.1.3 of Method 21 of Appendix A of 40 CFR 60, the instrument evaluation procedures of section 4.4 of Method 21 of Appendix A of 40 CFR 60 shall be used.
  - (4) The calibration procedures provided in section 4.2 of Method 21 of Appendix A of 40 CFR 60 shall be followed immediately before commencing a surface monitoring survey.
- (e) The provisions of 40 CFR 60.755 shall apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction, shall not exceed five (5) days for collection systems and shall not exceed one (1) hour for treatment or control devices.

D.1.8 Calculation of Non-Methane Organic Compound (NMOC) Rate [40 CFR 60.754] [326 IAC 8-8.1] [326 IAC 12]

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Pursuant to 40 CFR 60.754, the Permittee shall, when calculating emissions for PSD purposes, estimate the NMOC emission rate for comparison to the PSD major source and significance levels in 40 CFR 51.166 or 40 CFR 52.21 using the procedures provided in 40 CFR 60.754(b).

D.1.9 Testing Requirements [326 IAC 2-7-6(1),(6)] [40 CFR 60.754(b)] [326 IAC 8-8.1] [326 IAC 12]

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(a) After installation of a collection and control system in compliance with 40 CFR 60.755, the Permittee shall calculate the non methane organic compound (NMOC) emission rate for purposes of determining when the system can be removed using the following equation:

$$M_{\text{NMOC}} = 1.89 \times 10^{-3} Q_{\text{LFG}} C_{\text{NMOC}}$$

where,

$M_{\text{NMOC}}$  = mass emission rate of NMOC, megagrams per year

$Q_{\text{LFG}}$  = flow rate of landfill gas, cubic meters per minute

$C_{\text{NMOC}}$  = NMOC concentration, parts per million by volume as hexane

- (1) The flow rate of landfill gas,  $Q_{\text{LFG}}$ , 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 60.
- (2) The average NMOC concentration,  $C_{\text{NMOC}}$ , 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 of Appendix A of 40 CFR 60. If using Method 18 of Appendix A of 40 CFR 60, 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 Permittee shall divide the NMOC concentration from Method 25C of Appendix A of 40 CFR 60 by six to convert from  $C_{\text{NMOC}}$  as carbon to  $C_{\text{NMOC}}$  as hexane.
- (3) The Permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the IDEM, OAQ.

(b) Pursuant to 40 CFR 60.754(d):

For the performance test required in 40 CFR 60.752(b)(2)(iii)(B), Method 25, 25C, or Method 18 of Appendix A of 40 CFR 60 must be used to determine compliance with the 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the IDEM, OAQ as provided by 40 CFR 60.752(b)(2)(i)(B). Method 3 or 3A shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. If using Method 18 of Appendix A of 40 CFR 60, 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 following equation shall be used to calculate efficiency:

$$\text{Control Efficiency} = (\text{NMOC}_{\text{in}} - \text{NMOC}_{\text{out}}) / (\text{NMOC}_{\text{in}})$$

where,

$NMOC_{in}$  = mass of NMOC entering the control device  
 $NMOC_{out}$  = mass of NMOC exiting control device

**D.1.10 Compliance Determination [40 CFR 63.1960] [326 IAC 20]**

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Pursuant to 40 CFR 63.1960, compliance with 40 CFR 63, Subpart AAAAA shall be determined as follows:

- (a) The same way it is determined for 40 CFR 60, Subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence.
- (b) Continuous parameter monitoring data, collected under 40 CFR 60.756(b)(1), (c)(1), and (d) of subpart WWW shall be used to demonstrate compliance with the operating conditions for control systems. If a deviation (as defined in 40 CFR 63.1965) occurs, the Permittee has failed to meet the control device operating conditions described in 40 CFR 60, Subpart WWW and has deviated from the requirements of 40 CFR 63, Subpart AAAAA.
- (c) The Permittee must 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. Failure to write, implement, or maintain a copy of the SSM plan is a deviation from the requirements of 40 CFR 63, Subpart AAAAA.

**Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**D.1.11 Record Keeping Requirements [326 IAC 12] [326 IAC 8-8.1] [40 CFR 60.758]**

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Pursuant to 40 CFR 60.758, the Permittee shall:

- (a) Except as provided in 40 CFR 60.752(b)(2)(i)(B), the Permittee shall keep for at least five years up-to-date, readily accessible, on-site records of the design capacity report which triggered 40 CFR 60.752(b), 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 four (4) hours. Either paper copy or electronic formats are acceptable.
- (b) Except as provided in 40 CFR 60.752(b)(2)(i)(B), the Permittee shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs (1) through (3) below as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of five (5) years. Records of control device vendor specifications shall be maintained until removal.
  - (1) To demonstrate compliance with 40 CFR 60.752(b)(2)(ii), the Permittee shall maintain the following records:
    - (A) The maximum expected gas generation flow rate as calculated in 40 CFR 60.755(a)(1). The Permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the IDEM, OAQ.
    - (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).
  - (2) To demonstrate compliance with 40 CFR 60.752(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts, the Permittee shall maintain 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.
- (B) The percent reduction of NMOC determined as specified in 40 CFR 60.752(b)(2)(iii)(B) achieved by the control device.
- (c) Except as provided in 40 CFR 60.752(b)(2)(i)(B), the Permittee shall keep for five (5) years up-to-date, readily accessible, on-site records of the 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.
  - (1) The following constitute exceedances that shall be recorded and reported under 40 CFR 60.757(f):

For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28°Celsius (82.4°Fahrenheit) below the average combustion temperature during the most recent performance test at which compliance with 40 CFR 60.752(b)(2)(iii) was determined.
  - (2) The Permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under 40 CFR 60.756.
- (d) Except as provided in 40 CFR 60.752(b)(2)(i)(B), 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.
  - (1) The Permittee shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified in 40 CFR 60.755 (b).
  - (2) The Permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in 40 CFR 60.759 (a)(3)(i) as well as any non-productive areas excluded from collection as provided in 40 CFR 60.759 (a)(3)(ii).
- (e) Except as provided in 40 CFR 60.752(b)(2)(i)(B), the Permittee shall keep for at least five (5) years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in 40 CFR 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

#### D.1.12 Reporting Requirements [40 CFR 60.757] [326 IAC 8-8.1]

Pursuant to 40 CFR 60.757 and except as provided in 40 CFR 60.752(b)(2)(i)(B), the Permittee shall:

- (a) Submit a closure report to the IDEM, OAQ within thirty days of waste acceptance cessation. The IDEM, OAQ may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the IDEM, OAQ, no additional

wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4).

- (b) Submit an equipment removal report to the IDEM, OAQ thirty (30) days prior to removal or cessation of operation of the control equipment. The equipment removal report shall contain all of the following items: a copy of the closure report submitted in accordance with 40 CFR 60.757(d); a copy of the initial performance test report demonstrating that the fifteen (15) year minimum control period has expired; and dated copies of three (3) successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year. The IDEM, OAQ may request such 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.
- (c) Submit reports of the following recorded information. The initial report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8. For enclosed combustion devices, reportable exceedances are defined under 40 CFR 60.758(c).
  - (1) Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(a), (b), (c), and (d).
  - (2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under 40 CFR 60.756.
  - (3) Description and duration of all periods when the control device was not operating for a period exceeding one (1) hour and length of time the control device was not operating.
  - (4) All periods when the collection system was not operating in excess of five (5) days.
  - (5) Location of each exceedance of the 500 parts per million methane concentration as provided in 40 CFR 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month.
  - (6) Date of installation and the location of each well or collection system expansion added pursuant to 40 CFR 60.755(a)(3), (b), and (c)(4).

Pursuant to 40 CFR 63.1980(a), the Permittee shall submit the reports required by this condition every six months.

- (d) The reports required by 40 CFR 60.757 and 326 IAC 8-8.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit.

D.1.13 Record Keeping and Reporting Requirements for NESHAP for Municipal Solid Waste Landfills [40 CFR 63.1980] [326 IAC 20]

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- (a) Pursuant to 40 CFR 63.1980(a), the Permittee shall keep records and submit reports as specified in 40 CFR 60, Subpart WWW. The reports shall contain the information described in Condition D.1.12(c) and shall be submitted every six months.
- (b) Pursuant to 40 CFR 63.1980(b), the Permittee shall keep records and reports as specified in the general provisions of 40 CFR 60 and 40 CFR 63 as shown in Table 1 of 40 CFR 63, Subpart AAAA. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports. The SSM Plan report is due semi-annually.

D.1.14 Record keeping and Reporting Requirements for NESHAP for Active Asbestos Waste Disposal Sites [40 CFR 61.154] [326 IAC 14]

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Pursuant to 40 CFR 61, Subpart M, the Permittee shall:

- (a) For all asbestos containing waste material received, the Permittee of the active waste disposal site shall:
  - (1) Maintain waste shipment records and include the following information:
    - (A) The name, address, and telephone number of the waste generator;
    - (B) The name, address, and telephone number of the transporter(s);
    - (C) The quantity of the asbestos containing waste material in cubic meters (cubic yards).
    - (D) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the IDEM, OAQ or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report.
    - (E) The date of the receipt.
  - (2) As soon as possible and no longer than thirty (30) days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator.
  - (3) Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, 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 local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.
  - (4) Retain a copy of all records and reports required by this paragraph in accordance with Section C - General Record Keeping Requirements.
- (b) Maintain until closure, records of the location, depth and area, and quantity in cubic meters (or cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area.
- (c) Upon closure, comply with all the provisions of 40 CFR 61.151.
- (d) Submit to the IDEM, OAQ, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities.
- (e) Furnish upon request, and make available during normal business hours for inspection by the IDEM, OAQ, all records required under 40 CFR 61.154.

- (f) Notify the IDEM, OAQ 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 to the IDEM, OAQ at least ten (10) working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:
- (1) Scheduled starting and completion dates.
  - (2) Reason for disturbing the waste.
  - (3) 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 IDEM, OAQ may require changes in the emission control procedures to be used.
  - (4) Location of any temporary storage site and the final disposal site.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
and  
EVANSVILLE EPA**

**PART 70 OPERATING PERMIT  
CERTIFICATION**

Source Name: BFI Waste Systems of North America, Inc.  
Source Address: 2020 Laubscher Road, Evansville, Indiana 47720  
Mailing Address: 12976 St. Charles Rock Road, Bridgeton, Missouri 63044  
Part 70 Permit No.: T163-17692-00114

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify)
- Report (specify)
- Notification (specify)
- Affidavit (specify)
- Other (specify)

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**COMPLIANCE BRANCH  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251  
Phone: 317-233-0178  
Fax: 317-233-6865**

**AND  
Evansville EPA  
C.K. Newsome Community Center  
100 East Walnut Street, Suite 100  
Evansville, Indiana 47713  
Phone 812-435-6145  
Fax: 812-435-6155**

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: BFI Waste Systems of North America, Inc.  
Source Address: 2020 Laubscher Road, Evansville, Indiana 47720  
Mailing Address: 12976 St. Charles Rock Road, Bridgeton, Missouri 63044  
Part 70 Permit No.: T163-17692-00114

**This form consists of 2 pages**

**Page 1 of 2**

- |  |
|--|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12)  |
| X The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and                    |
| X The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16. |

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION  
and EVANSVILLE EPA**

**PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: BFI Waste Systems of North America, Inc.  
Source Address: 2020 Laubscher Road, Evansville, Indiana 47720  
Mailing Address: 12976 St. Charles Rock Road, Bridgeton, Missouri 63044  
Part 70 Permit No.: T163-17692-00114

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
<b>Permit Requirement (specify permit condition #)</b>	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement (specify permit condition #)</b>	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## **Attachment A**

**BFI Waste Systems of North America, Inc.  
2020 Laubscher Road  
Evansville, Indiana**

### **Fugitive Dust Control Plan**

BFI Waste Systems of North America, Inc. - will control fugitive emissions from the paved and unpaved roads according to the following plan:

- (a) Periodic watering of the primary access roads on an as-needed basis.
- (b) Periodic watering of the non-paved access roads on an as-needed basis.
- (c) Periodic watering of soil movement haul roads on an as-needed basis.

**Indiana Department of Environmental Management  
Office of Air Quality  
and Evansville EPA**

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

**Source Background and Description**

Source Name:	BFI Waste Systems of North America, Inc.
Source Location:	2020 Laubscher Road, Evansville, Indiana 47720
County:	Vanderburgh
SIC Code:	4953
Operation Permit No.:	163-8309-00114
Operation Permit Issuance Date:	April 16, 1999
Permit Renewal No.:	163-17692-00114
Permit Reviewer:	ERG/ST

The Office of Air Quality (OAQ) has reviewed a Part 70 Operating Permit Renewal application from BFI Waste Systems of North America, Inc. (BFI) relating to the operation of a stationary municipal solid waste landfill.

**History and Background**

BFI currently operates the Laubscher Meadows Landfill facility (a municipal solid waste landfill) located approximately seven miles north of Evansville, in Vanderburgh County, Indiana. The landfill was opened in 1979 and accepts asbestos-containing waste. The landfill increased its maximum design capacity in 1998 to 14,450,990 Megagrams. The Permittee expects to close the landfill in 2028.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) municipal solid waste landfill, identified as Emissions Unit # 1, constructed in 1979, modified in 1995 and 1998, with a maximum design capacity of 14,450,990 Megagrams.
- (b) One (1) enclosed combustor, identified as Emissions Unit # 2, constructed in 1991, with a maximum capacity of 3,400 standard cubic feet per minute (scfm) of landfill gas.
- (c) Two (2) Waukesha 135 HP landfill gas fueled engine/generator sets, identified as Emissions Units # 3 and # 4, constructed in 1996, with a maximum capacity of 1.2 MMBtu/hour each.

**Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted emission units operating at this source during this review process.

**Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4 and 326 IAC 6-5]

- (b) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
- (c) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.
- (d) Combustion source flame safety purging on startup.
- (e) A petroleum fuel (other than gasoline) dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month, including:
  - (1) One (1) 8,000 gallon diesel fuel tank dispensing 6,500 gallons per month.
  - (2) One (1) 10,000 gallon diesel fuel tank dispensing 3,000 gallons per month.
- (f) The following VOC and HAP storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons:
  - (1) One (1) 250 gallon waste oil tank.
  - (2) One (1) 550 gallon diesel fuel tank.
- (g) Asbestos abatement projects regulated by 326 IAC 14-10.
- (h) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (i) Emergency diesel generators not exceeding 1600 horsepower.
- (j) Other activities:
  - (1) Composting Tub Grinder;
  - (2) Composting Screener;
  - (2) Composting Screener;
  - (3) Composting Organic Pile Emissions;
  - (3) Composting Organic Pile Emissions;
  - (4) Composting Drop Point Emissions;
  - (4) Composting Drop Point Emissions;
  - (5) Recyclery/Material Handling Emissions.

<b>Existing Approvals</b>
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The source has been operating under Part 70 Permit No. T163-8309-00114, issued April 15, 1999, and the following approvals:

- (a) First Reopening 163-13499-00114, issued November 5, 2001.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous permits are superseded by this permit.

#### **Enforcement Issue**

There are no enforcement actions pending.

#### **Recommendation**

The staff recommends to the Commissioner that the Part 70 permit renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit renewal application for the purposes of this review was received on July 1, 2003.

#### **Emission Calculations**

See Appendix A of this document for detailed calculations of uncontrolled CH<sub>4</sub>, NMOC and CO emissions from the landfill using the EPA LandGEM model (Version 2.01).

See Appendix B of this document for detailed emissions calculations of all criteria pollutants and HAPs from the controlled landfill, the enclosed combustor, the landfill gas engine/generators and roads at closure. The applicant's calculations for PM and PM-10 emissions from the roads, dirt pushing and dirt storage were verified and found to be correct and are included in Appendix B.

The applicant submitted detailed TANKS emissions reports for all of the VOC and HAP storage tanks onsite (10,000 gallon, 8,000 gallon, and 550 gallon diesel fuel storage tanks). The specifications and calculation output was reviewed. All of the tanks are considered insignificant activities pursuant to 326 IAC 2-7.

#### **Potential to Emit of the Source**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

The source was issued a Part 70 Operating Permit on April 15, 1999. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of the original Part 70 operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/emission unit	Potential to Emit (tons/year)						
	PM	PM-10	SO <sub>2</sub>	VOC	CO*	NO <sub>x</sub>	HAPs
Landfill (Emissions Unit # 1) and 3,400 scfm Enclosed Combustor (Emissions Unit #2)	7.59	7.59	7.47	33.1	152	27.6	9.64
Two (2) 1.2 MMBtu Engine Generators (Emissions Units # 3 and # 4)	1.12	1.12	0.38	--	10.9	5.78	
Paved and Unpaved Roads (fugitive)	10.3	2.72	0	0	0	0	0
<b>Total PTE</b>	<b>8.71</b>	<b>8.71</b>	<b>7.86</b>	<b>33.2</b>	<b>163</b>	<b>33.4</b>	<b>9.64</b>

"--" Emissions are insignificant

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of carbon monoxide (CO) is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) Since this source is a municipal solid waste landfill that was modified after May 30, 1991, it is subject to 40 CFR 60, Subpart WWW Standards of Performance for Municipal Solid Waste Landfills. Pursuant to New Source Performance Standard 40 CFR 60, Subpart WWW, the source is subject to the provisions of 326 IAC 2-7.
- (c) **Fugitive Emissions**  
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD applicability.

**Actual Emissions**

The following table shows the actual emissions from the source. This information reflects the 2001 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	Not Reported
PM2.5	8
PM-10	8
SO <sub>2</sub>	7
VOC	8
CO	117
NO <sub>x</sub>	39
HAP	Not Reported

**County Attainment Status**

The source is located in Vanderburgh County.

Pollutant	Status
PM-10	Attainment
PM2.5	Nonattainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Basic Nonattainment
CO	Attainment
Lead	Attainment

- (a) U.S.EPA in Federal Register Notice 70 FR 943 dated January 5, 2005 has designated Vanderburgh County as nonattainment for PM<sub>2.5</sub>. On March 7, 2005 the Indiana Attorney General's Office on behalf of IDEM filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of non-attainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM<sub>10</sub> emissions as surrogate for PM<sub>2.5</sub> emissions pursuant to the Non-attainment New Source Review requirements. See the State Rule Applicability – Entire Source section.
- (b) Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purpose of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Vanderburgh County has been designated as nonattainment for the 8-hour ozone standards. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Emission Offset (326 IAC 2-3). See the State Rule Applicability – Entire Source section.
- (c) Vanderburgh County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

#### **Part 70 Permit Conditions**

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

#### **Federal Rule Applicability**

- (a) The requirements of Compliance Assurance Monitoring under 40 CFR 64.2(b)(i) are not included in this permit, as the source is regulated under emission limitations or standards (NSPS and NESHAP) proposed by the Administrator after November 15, 1990.
- (b) This source is subject to the New Source Performance Standard for Municipal Solid Waste Landfills, (326 IAC 12, 40 CFR 60, Subpart WWW) because the design capacity of the source is greater than 2.5 million Megagrams and the municipal solid waste landfill was modified after May 30, 1991. The design capacity was increased in 1995 and again in 1998.

Pursuant to 40 CFR 60.752, a municipal solid waste landfill with a design capacity greater than 2.5 million megagrams shall either comply with 40 CFR 60.752 (b)(2) or calculate the non methane organic compound emission (NMOC) rate for the landfill using the procedures specified in 40 CFR 60.754. The Permittee installed a landfill gas collection and control system to comply with requirements of 40 CFR 60.752(b)(2) in 1990.

To comply with 40 CFR 60.752 (b)(2)(ii), the Permittee shall:

- (1) Operate the collection system such that gas is collected from each area, cell, or group of cells in the municipal solid waste landfill in which solid waste has been in place for five years if active or 2 years or more if closed or at final grade.
- (2) Operate the collection system with negative pressure at each wellhead except under the following conditions:
  - (A) Fire or increased well temperature. The Permittee shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in 40 CFR 60.757(f)(1).
  - (B) Use of a geomembrane or synthetic cover. The Permittee shall develop acceptable pressure limits in the design plan.
  - (C) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the IDEM, OAQ.
- (3) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55°C 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 Method 3C, unless an alternative method is established as allowed by 40 CFR 60.752 (b)(2)(i).
  - (B) Unless an alternative test method is established as allowed by 40 CFR 60.752 (b)(2)(i), the oxygen shall be determined by an oxygen meter using Method 3A except that; the span shall be set so that the regulatory limit is between 20 and 50 percent of the span; a data recorder is not required; only two calibration gases are required, a zero and span, and ambient air may be used as the span; a calibration error check is not required; the allowable sample bias, zero drift, and calibration drift are  $\pm 10$  percent.
- (4) 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 around the perimeter of the collection area along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. 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.
- (5) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with 40 CFR 60.752(b)(2)(iii). 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 one hour.

- (6) Operate the control system at all times when the collected gas is routed to the system.
- (7) If monitoring demonstrates that the operational requirement in 40 CFR 60.753(b), (c), or (d) are not met, corrective action shall be taken as specified in 40 CFR 60.752(a)(3) through (5) or 40 CFR 60.755(c). If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements in 40 CFR 60.753.

The source currently complies with the federal requirements. This is accomplished by means of a properly engineered, installed and operated collection and control system that collects and burns off the landfill gas using an enclosed combustor.

- (c) This source is subject to the requirements of National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Municipal Solid Waste Landfills (40 CFR 63.1930 - 63.1952, Subpart AAAA) (326 IAC 20-67). This source has accepted waste since November 8, 1987, has a design capacity greater than 2.5 million Megagrams, and has uncontrolled NMOC emissions greater than 50 megagrams per year (Mg/yr) (as calculated using the procedures specified in 40 CFR 60.754(a)(1)). This landfill site does not include a bioreactor, as defined in 40 CFR 63.1990.

- (1) Pursuant to 40 CFR 63.1955, the Permittee shall:
  - (A) Comply with the requirements of 40 CFR 60, Subpart WWW.
  - (B) Comply with the general and continuing compliance requirements in 40 CFR 63.1960 through 40 CFR 63.1985.
  - (C) For approval of collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, you must follow the procedures in 40 CFR 60.752(b)(2). If alternatives have already been approved under 40 CFR part 60 subpart WWW or the Federal plan, or EPA approved and effective State or tribal plan, these alternatives can be used to comply with this subpart, except that all affected sources must comply with the SSM requirements in Subpart A of this part as specified in Table 1 of this subpart and all affected sources must submit compliance reports every 6 months as specified in §63.1980(a) and (b), including information on all deviations that occurred during the 6-month reporting period. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3 hour monitoring block average.
- (2) Pursuant to 40 CFR 63.1960, compliance with 40 CFR 63, Subpart AAAA shall be determined as follows:
  - (A) The same way it is determined for 40 CFR 60, Subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence.
  - (B) Continuous parameter monitoring data, collected under 40 CFR 60.756(b)(1), (c)(1), and (d) of subpart WWW, shall be used to demonstrate compliance with the operating conditions for control systems. If a deviation (as defined in 40 CFR 63.1965) occurs, the Permittee has failed to meet the control device operating conditions described in 40 CFR 60, Subpart WWW and has deviated from the requirements of 40 CFR 63, Subpart AAAA.

- (C) The Permittee must develop and implement a written SSM plan according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan should be maintained on site. Failure to write, implement, or maintain a copy of the SSM plan is a deviation from the requirements of 40 CFR 63, Subpart AAAAA.
- (3) Pursuant to 40 CFR 63.1980, the Permittee shall comply with the following record keeping and reporting requirements:
- (A) The Permittee shall keep records and reports as specified in 40 CFR 60, Subpart WWW, with one exception: The Permittee must submit the annual report described in 40 CFR 60.757(f) every 6 months.
  - (B) The Permittee shall keep records and reports as specified in the general provisions of 40 CFR part 60 and 40 CFR 63 as shown in Table 1 of 40 CFR 63, Subpart AAAAA. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports.
- (d) Pursuant to 326 IAC 14-2-1, this source is subject to the National Emission Standards for Hazardous Air Pollutants for Asbestos Active Waste Disposal Sites (40 CFR 61.154, (Subpart M)). This rule requires that each Permittee of an active waste disposal site that receives asbestos-containing waste material from a source covered under 40 CFR 61.149, 61.150, or 61.155 shall meet the following requirements:
- (1) Either there must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or the requirements of 40 CFR 61.154(c) or 40 CFR 61.154(d) must be met.
  - (2) Unless a natural barrier adequately deters access by the general public, either warning signs and fencing must be installed and maintained as follows, or the requirements of 40 CFR 61.154(c)(1) must be met.
    - (A) Warning signs must be displayed at all entrances and at intervals of 100 m (330 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited. The warning signs must conform to the specifications set forth in 40 CFR 61.154(b)(1)(i-iii).
    - (B) The perimeter of the disposal site must be fenced in a manner adequate to deter access by the general public.
    - (C) Upon request and supply of appropriate information, the Administrator will determine whether a fence or a natural barrier adequately deters access by the general public.
  - (3) Rather than meet the no visible emission requirement of 40 CFR 61.154(a), at the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall:
    - (A) Be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, or
    - (B) Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and

maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the Administrator. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.

- (4) Rather than meet the no visible emission requirement of 40 CFR 61.154(a), use an alternative emissions control method that has received prior written approval by the Administrator according to the procedures described in 40 CFR 61.149(c)(2).
- (5) For all asbestos-containing waste material received, the Permittee shall:
  - (A) Maintain waste shipment records that include the following information:
    - (i) The name, address, and telephone number of the waste generator.
    - (ii) The name, address, and telephone number of the transporter(s).
    - (iii) The quantity of the asbestos-containing waste material in cubic meters (cubic yards).
    - (iv) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report.
    - (v) The date of the receipt.
  - (B) As soon as possible and no longer than thirty (30) days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator.
  - (C) Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within fifteen (15) days after receiving the waste, immediately report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.
  - (D) Retain a copy of all records and reports required by this paragraph. Pursuant to 326 IAC 2-7-5(3)(B)(ii), records of all required monitoring data and support information must be retained for a period of at least five (5) years from the date of data collection.

- (6) Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area.
- (7) Upon closure, comply with all the provisions of 40 CFR 61.151.
- (8) Submit to the Administrator, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities.
- (9) Furnish upon request, and make available during normal business hours for inspection by the Administrator, all records required under this section.
- (10) Notify the Administrator in writing at least forty-five (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 to the Administrator at least ten (10) working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information 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 Administrator may require changes in the emission control procedures to be used.
  - (D) Location of any temporary storage site and the final disposal site. (Secs. 112 and 301(a) of the Clean Air Act as amended (42 U.S.C. 7412, 7601(a))

The source currently complies with the federal requirements by covering any asbestos-containing waste material that has been deposited with at least 15 centimeters (6 inches) of compacted non-asbestos containing material within a 24-hour period.

- (e) The requirements of 40 CFR 60, Subparts K, Ka or Kb are not applicable to the 10,000 and 8,000 gallon diesel fuel storage tanks. These tanks have a capacity less than 75 cubic meters. 40 CFR 60, Subpart Kb was revised on October 15, 2003.
- (f) The requirements of the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) (40 CFR 63, Subpart ZZZZ) are not included in this permit for the two (2) landfill gas-fueled engine/generators (EU 3 and EU 4). These engines are located at a minor source of HAP.

<b>State Rule Applicability – Entire Source</b>
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**326 IAC 2-3 (Emission Offset) and 326 IAC 2-1.1(Nonattainment NSR)**

This source is located in Vanderburgh County. Vanderburgh County was designated as a nonattainment area for the 8-hour ozone standard in June 2004. The potential to emit of VOC and NOx from this source is less than 100 tons per year. Therefore, this source is a minor source under Emission Offset. Any future modifications that increase VOC or NOx emissions must be reviewed in accordance with 326 IAC 2-3.

Vanderburgh County has been designated as non-attainment for PM 2.5 in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled "Implementation of New Source

Review Requirements in PM2.5 Nonattainment Areas” authored by Steve Page, Director of OAQPS, until EPA promulgates the PM 2.5 major NSR regulations, states should assume that a major stationary source’s PM10 emissions represent PM2.5 emissions. IDEM will use the PM10 nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM2.5 NAAQS. A major source in a nonattainment area as a source that emits or has the potential to emit 100 tpy of any regulated pollutant. BFI Waste Systems of North America has a limited potential to emit of PM10 below 100 tpy. Therefore, assuming that PM10 emissions represent PM2.5 emissions, Nonattainment NSR does not apply.

#### 326 IAC 2-2 (Prevention of Significant Deterioration)

This source is not in 1 of the 28 source categories and there are no applicable New Source Performance Standards that were in effect on August 7, 1980, therefore, fugitive emissions of PM and VOC are not counted towards applicability of PSD.

This source was constructed in 1970. At the time of construction, the PTE for PM, PM10, NO<sub>x</sub>, SO<sub>2</sub>, CO and VOC were less than 250 tons per year. Therefore, during the period of 1970 to 1990, the source was an existing minor source under PSD.

In 1991, a landfill gas collection system and a 3,400 scfm enclosed combustor were added. The potential to emit of CO of the 3,400 scfm enclosed combustor at the maximum rated capacity is 150 tons per year. The potential to emit of NO<sub>x</sub> of the 3,400 scfm enclosed combustor at the maximum rated capacity is 27.6 tons per year. The potential to emit of PM, PM<sub>10</sub>, SO<sub>2</sub> and VOC of the 3,400 scfm enclosed combustor at the maximum rated capacity is less than 8 tons per year for each of these pollutants. Therefore, this modification did not trigger PSD review. Subsequent to the addition of the enclosed flare, the PTE for PM, PM10, NO<sub>x</sub>, SO<sub>2</sub>, CO and VOC for the entire source were less than 250 tons per year. Subsequent to this modification, the source remained a minor source under PSD.

In 1996, two (2) 1.2 MMBtu/hour landfill gas engines consuming 88 scfm of landfill gas were added. The potential to emit of PM, PM10, NO<sub>x</sub>, SO<sub>2</sub>, CO and VOC from the two (2) landfill gas engines at maximum rated capacity is less than six (6) tons per year. Therefore, this modification did not trigger PSD review. Subsequent to the addition of the landfill gas engines, the PTE for PM, PM10, NO<sub>x</sub>, SO<sub>2</sub>, CO and VOC for the entire source were less than 250 tons per year. Subsequent to this modification, the source remained a minor source under PSD.

The PTE for PM, PM10, SO<sub>2</sub>, and CO from the emission units at this source are less than 250 tons per year. This source is a minor source under PSD.

#### 326 IAC 2-4.1 (New Source Toxics Control)

This landfill has not installed any new major sources of HAP after July 27, 1997. The flare and landfill gas engine/generators are not major sources of HAPs. Therefore the requirements of this rule do not apply.

#### 326 IAC 2-6 (Emission Reporting)

Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). In accordance with the compliance schedule in 326 IAC 2-6-3, an emission statement must be submitted triennially by July 1 beginning in 2006 and every 3 years after. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

#### 326 IAC 5-1 (Opacity Limitations)

This source is located in Pigeon Township in Vanderburgh County. Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in the permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**326 IAC 6-4 (Fugitive Dust Emissions)**

Pursuant to 326 IAC 6-4, the source shall not generate fugitive dust to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

**326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)**

This source is located in Pigeon Township of Vanderburgh County and has potential fugitive particulate matter emissions greater than 25 tons per year. Pursuant to 326 IAC 6-5-1(a)(2)(E), the source shall be required to control fugitive particulate matter emissions. The source has already implemented measures to limit fugitive particulate matter emissions from the paved and unpaved roads according to the following plan:

- (a) Periodic watering of the primary access roads on an as-needed basis.
- (b) Periodic watering of the non-paved access roads on an as-needed basis.
- (c) Periodic watering of soil movement haul roads on an as-needed basis.

**State Rule Applicability - Municipal Solid Waste Landfill**

**326 IAC 8-8.1 (Municipal Solid Waste Landfills Not Located in Clark, Floyd, Lake and Porter Counties)**

This source is located in Vanderburgh County, has capacity available for future use and was constructed prior to May 30, 1991. It meets the definition of "existing municipal solid waste landfill" as defined in 326 IAC 8-8.1-2(b). Therefore, this landfill is subject to 326 IAC 8-8.1. 326 IAC 8-8.1 incorporates, by reference, all of the provisions of 40 CFR 60, Subpart WWW - New Source Performance Standards for Municipal Solid Waste Landfills. Therefore, the landfill fulfills the requirements of 326 IAC 8-8.1 by following the requirements of 40 CFR 60, Subpart WWW.

**State Rule Applicability – 3,400 SCFM Enclosed Combustor and Two (2) 1.2 MMBtu Engine/Generators**

**326 IAC 9-1-2 (Carbon Monoxide Emission Requirements)**

The enclosed combustor and engine/generators are is not among the listed source categories in 326 IAC 9-1-2. Therefore, the requirements of 326 IAC 9-1-2 are not applicable to these units.

**326 IAC 10-1-3 (Nitrogen Oxide Emission Requirements)**

This source is not located in Clark or Floyd County. Therefore, the requirements of 326 IAC 10-1-3 are not applicable to these units.

**State Rule Applicability – 10,000, 8,000 and 550 Gallon Diesel Fuel Storage Tanks**

**326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)**

The above ground diesel fuel storage tanks (petroleum distillates) are not subject to 326 IAC 8-9 because the source is not located in Clark, Floyd, Lake, or Porter County.

**326 IAC 12 (New Source Performance Standards)**

The 10,000 and 8,000 gallon diesel fuel storage tanks at this source are not subject to the requirements of 326 IAC 12 because the diesel fuel storage tanks all have capacities less than 75 cubic meters.

### **State Rule Applicability - Brazing Equipment, Cutting Torches, Soldering Equipment, Welding Equipment**

The brazing, cutting soldering and welding activities at this source are related to the routine fabrication, maintenance and repair of buildings, structures, equipment and vehicles and are not associated with any commercial production process. Pursuant to 326 IAC 2-7-1(40)(E)(iii), these activities are trivial activities. Therefore, the requirements of 326 IAC 6-3-2 do not apply.

### **Testing Requirements**

No stack testing is required for the enclosed combustor or the generator/engines. The only pollutant being controlled is NMOC (VOC) and the allowable emissions of this pollutant are less than ten (10) pounds per hour.

### **Compliance Requirements**

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The municipal solid waste landfill has applicable compliance monitoring conditions for the active landfill gas collection system as specified below:
  - (a) Except as provided in 40 CFR 60.752(b)(2)(i)(B), the Permittee complying with 40 CFR 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:
    - (1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in 40 CFR 60.755(a)(3);
    - (2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in 40 CFR 60.755(a)(5); and
    - (3) Monitor temperature of the landfill gas on a monthly basis as provided in 40 CFR 60.755(a)(5).
  - (b) To demonstrate compliance with 40 CFR 60.755(c), the Permittee shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in 40 CFR 60.755(d). 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.

2. The enclosed combustor and the two (2) landfill gas engine generators have applicable compliance monitoring conditions as specified below:
  - (a) For the enclosed combustors used to comply with 40 CFR 60.752(b)(2)(iii), the Permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment:
    - (1) A temperature monitoring device equipped with a continuous recorder and having minimum accuracy of  $\pm 1$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 0.5$  °C, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity greater than 44 megawatts.
    - (2) A device that records flow to or bypass of the control device. The Permittee shall either; install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every fifteen (15) minutes; or 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.

These monitoring conditions are necessary because the enclosed combustor, landfill gas engine/generators and the active collection system must operate properly to ensure compliance with 40 CFR 60, Subpart WWW (Standards of Performance for Municipal Solid Waste Landfills) and 40 CFR 63, Subpart AAAA (National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Municipal Solid Waste Landfills).

<b>Conclusion</b>
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The operation of this stationary municipal solid waste landfill shall be subject to the conditions of this Part 70 permit 163-17692-00114.

Appendix A: Emissions Calculations: LandGEM Model (Version 2.01) Output

Methane (CH<sub>4</sub>) and Carbon Dioxide (CO<sub>2</sub>) Emission Rate

Model Parameters

Lo : 100.00 m<sup>3</sup> / Mg  
 k : 0.0400 1/yr  
 NMOC : 595.00 ppmv  
 Methane : 50.0000 % volume  
 Carbon Dioxide : 50.0000 % volume

Landfill Parameters

Landfill type : No Co-Disposal  
 Year Opened : 1979 Current Year : 2006 Closure Year: 2028 Capacity : 14,450,990 Mg  
 Average Acceptance Rate Required from Current Year to Closure Year : 304,559.60 Mg/year

Model Results

Year	Refuse In Place (Mg)	Methane Emission Rate	
		(Mg/yr)	(Cubic m/yr)
1980	2.816E+05	7.515E+02	1.126E+06
1981	5.631E+05	1.473E+03	2.208E+06
1982	8.446E+05	2.167E+03	3.247E+06
1983	1.126E+06	2.833E+03	4.246E+06
1984	1.408E+06	3.473E+03	5.206E+06
1985	1.689E+06	4.088E+03	6.127E+06
1986	1.971E+06	4.679E+03	7.013E+06
1987	2.252E+06	5.247E+03	7.865E+06
1988	2.534E+06	5.793E+03	8.683E+06
1989	2.815E+06	6.317E+03	9.469E+06
1990	3.097E+06	6.821E+03	1.022E+07
1991	3.379E+06	7.305E+03	1.095E+07
1992	3.660E+06	7.770E+03	1.165E+07
1993	3.942E+06	8.217E+03	1.232E+07
1994	4.223E+06	8.646E+03	1.296E+07
1995	4.505E+06	9.059E+03	1.358E+07
1996	4.796E+06	9.479E+03	1.421E+07
1997	5.086E+06	9.883E+03	1.481E+07
1998	5.377E+06	1.027E+04	1.539E+07
1999	5.667E+06	1.064E+04	1.595E+07
2000	5.958E+06	1.100E+04	1.649E+07
2001	6.251E+06	1.135E+04	1.702E+07
2002	6.544E+06	1.169E+04	1.752E+07
2003	6.837E+06	1.201E+04	1.801E+07
2004	7.142E+06	1.235E+04	1.852E+07
2005	7.446E+06	1.268E+04	1.901E+07
2006	7.751E+06	1.300E+04	1.948E+07
2007	8.055E+06	1.330E+04	1.994E+07
2008	8.360E+06	1.359E+04	2.037E+07

2009	8.664E+06	1.387E+04	2.079E+07
2010	8.969E+06	1.414E+04	2.120E+07
2011	9.273E+06	1.440E+04	2.158E+07
2012	9.578E+06	1.465E+04	2.196E+07
2013	9.883E+06	1.489E+04	2.231E+07
2014	1.019E+07	1.511E+04	2.266E+07
2015	1.049E+07	1.533E+04	2.299E+07
2016	1.080E+07	1.555E+04	2.330E+07
2017	1.110E+07	1.575E+04	2.361E+07
2018	1.141E+07	1.594E+04	2.390E+07
2019	1.171E+07	1.613E+04	2.418E+07
2020	1.201E+07	1.631E+04	2.445E+07
2021	1.232E+07	1.649E+04	2.471E+07
2022	1.262E+07	1.665E+04	2.496E+07
2023	1.293E+07	1.681E+04	2.520E+07
2024	1.323E+07	1.697E+04	2.543E+07
2025	1.354E+07	1.711E+04	2.565E+07
2026	1.384E+07	1.725E+04	2.586E+07
2027	1.415E+07	1.739E+04	2.607E+07
<b>2028</b>	<b>1.445E+07</b>	<b>1.752E+04</b>	<b>2.626E+07</b>
2029	1.445E+07	1.683E+04	2.523E+07
2030	1.445E+07	1.617E+04	2.424E+07
2031	1.445E+07	1.554E+04	2.329E+07
2032	1.445E+07	1.493E+04	2.238E+07
2033	1.445E+07	1.435E+04	2.150E+07

**Maximum Emissions Rate**

Non-Methane Organic Compounds (NMOC) Emission Rate

Model Parameters

Lo : 100.00 m<sup>3</sup> / Mg  
 k : 0.0400 1/yr  
 NMOC : 595.00 ppmv  
 Methane : 50.0000 % volume  
 Carbon Dioxide : 50.0000 % volume

Landfill Parameters

Landfill type : No Co-Disposal  
 Year Opened : 1979 Current Year : 2006 Closure Year: 2028 Capacity : 14,450,990 Mg  
 Average Acceptance Rate Required from Current Year to Closure Year : 304,559.60 Mg/year

Model Results

Year	NMOC Emission Rate		
	Refuse In Place (Mg)	(Mg/yr)	(Cubic m/yr)
1980	2.816E+05	4.805E+00	1.340E+03
1981	5.631E+05	9.419E+00	2.628E+03
1982	8.446E+05	1.385E+01	3.865E+03
1983	1.126E+06	1.811E+01	5.053E+03
1984	1.408E+06	2.220E+01	6.195E+03
1985	1.689E+06	2.614E+01	7.292E+03
1986	1.971E+06	2.992E+01	8.346E+03
1987	2.252E+06	3.355E+01	9.359E+03
1988	2.534E+06	3.704E+01	1.033E+04
1989	2.815E+06	4.039E+01	1.127E+04
1990	3.097E+06	4.361E+01	1.217E+04
1991	3.379E+06	4.671E+01	1.303E+04
1992	3.660E+06	4.968E+01	1.386E+04
1993	3.942E+06	5.254E+01	1.466E+04
1994	4.223E+06	5.528E+01	1.542E+04
1995	4.505E+06	5.792E+01	1.616E+04
1996	4.796E+06	6.060E+01	1.691E+04
1997	5.086E+06	6.319E+01	1.763E+04
1998	5.377E+06	6.567E+01	1.832E+04
1999	5.667E+06	6.805E+01	1.898E+04
2000	5.958E+06	7.034E+01	1.962E+04
2001	6.251E+06	7.258E+01	2.025E+04
2002	6.544E+06	7.473E+01	2.085E+04
2003	6.837E+06	7.680E+01	2.143E+04
2004	7.142E+06	7.899E+01	2.204E+04
2005	7.446E+06	8.109E+01	2.262E+04
2006	7.751E+06	8.310E+01	2.318E+04
2007	8.055E+06	8.504E+01	2.373E+04
2008	8.360E+06	8.690E+01	2.424E+04
2009	8.664E+06	8.869E+01	2.474E+04

2010	8.969E+06	9.041E+01	2.522E+04
2011	9.273E+06	9.206E+01	2.568E+04
2012	9.578E+06	9.365E+01	2.613E+04
2013	9.883E+06	9.517E+01	2.655E+04
2014	1.019E+07	9.664E+01	2.696E+04
2015	1.049E+07	9.805E+01	2.735E+04
2016	1.080E+07	9.940E+01	2.773E+04
2017	1.110E+07	1.007E+02	2.809E+04
2018	1.141E+07	1.019E+02	2.844E+04
2019	1.171E+07	1.031E+02	2.878E+04
2020	1.201E+07	1.043E+02	2.910E+04
2021	1.232E+07	1.054E+02	2.941E+04
2022	1.262E+07	1.065E+02	2.970E+04
2023	1.293E+07	1.075E+02	2.999E+04
2024	1.323E+07	1.085E+02	3.026E+04
2025	1.354E+07	1.094E+02	3.052E+04
2026	1.384E+07	1.103E+02	3.078E+04
2027	1.415E+07	1.112E+02	3.102E+04
<b>2028</b>	<b>1.445E+07</b>	<b>1.120E+02</b>	<b>3.125E+04</b>
2029	1.445E+07	1.076E+02	3.003E+04
2030	1.445E+07	1.034E+02	2.885E+04
2031	1.445E+07	9.936E+01	2.772E+04
2032	1.445E+07	9.546E+01	2.663E+04
2033	1.445E+07	9.172E+01	2.559E+04
2034	1.445E+07	8.812E+01	2.458E+04

**Maximum Emissions Rate**

Carbon Monoxide (CO) Emission Rate

=====  
 Model Parameters  
 =====

Lo : 100.00 m<sup>3</sup> / Mg  
 k : 0.0400 1/yr  
 NMOC : 595.00 ppmv  
 Methane : 50.0000 % volume  
 Carbon Dioxide : 50.0000 % volume  
 Air Pollutant : Carbon Monoxide  
 Molecular Wt = 28.01    Concentration = 141.000000 ppmV

=====  
 Landfill Parameters  
 =====

Landfill type : No Co-Disposal  
 Year Opened : 1979    Current Year : 2006    Closure Year: 2028    Capacity : 14,450,990 Mg  
 Average Acceptance Rate Required from Current Year to Closure Year : 304,559.60 Mg/year

=====  
 Model Results  
 =====

Year	Carbon Monoxide Emission Rate		
	Refuse In Place (Mg)	(Mg/yr)	(Cubic m/yr)
1980	2.816E+05	3.701E-01	3.176E+02
1981	5.631E+05	7.255E-01	6.227E+02
1982	8.446E+05	1.067E+00	9.158E+02
1983	1.126E+06	1.395E+00	1.197E+03
1984	1.408E+06	1.710E+00	1.468E+03
1985	1.689E+06	2.013E+00	1.728E+03
1986	1.971E+06	2.304E+00	1.978E+03
1987	2.252E+06	2.584E+00	2.218E+03
1988	2.534E+06	2.853E+00	2.449E+03
1989	2.815E+06	3.111E+00	2.670E+03
1990	3.097E+06	3.359E+00	2.883E+03
1991	3.379E+06	3.597E+00	3.088E+03
1992	3.660E+06	3.826E+00	3.284E+03
1993	3.942E+06	4.046E+00	3.473E+03
1994	4.223E+06	4.258E+00	3.655E+03
1995	4.505E+06	4.461E+00	3.829E+03
1996	4.796E+06	4.668E+00	4.007E+03
1997	5.086E+06	4.867E+00	4.177E+03
1998	5.377E+06	5.058E+00	4.341E+03
1999	5.667E+06	5.241E+00	4.499E+03
2000	5.958E+06	5.418E+00	4.650E+03
2001	6.251E+06	5.590E+00	4.798E+03
2002	6.544E+06	5.756E+00	4.941E+03
2003	6.837E+06	5.915E+00	5.078E+03
2004	7.142E+06	6.084E+00	5.222E+03
2005	7.446E+06	6.245E+00	5.361E+03
2006	7.751E+06	6.401E+00	5.494E+03
2007	8.055E+06	6.550E+00	5.622E+03

2008	8.360E+06	6.693E+00	5.745E+03
2009	8.664E+06	6.831E+00	5.864E+03
2010	8.969E+06	6.964E+00	5.977E+03
2011	9.273E+06	7.091E+00	6.086E+03
2012	9.578E+06	7.213E+00	6.191E+03
2013	9.883E+06	7.330E+00	6.292E+03
2014	1.019E+07	7.443E+00	6.389E+03
2015	1.049E+07	7.552E+00	6.482E+03
2016	1.080E+07	7.656E+00	6.571E+03
2017	1.110E+07	7.756E+00	6.657E+03
2018	1.141E+07	7.852E+00	6.740E+03
2019	1.171E+07	7.944E+00	6.819E+03
2020	1.201E+07	8.033E+00	6.895E+03
2021	1.232E+07	8.118E+00	6.968E+03
2022	1.262E+07	8.200E+00	7.039E+03
2023	1.293E+07	8.279E+00	7.106E+03
2024	1.323E+07	8.354E+00	7.171E+03
2025	1.354E+07	8.427E+00	7.233E+03
2026	1.384E+07	8.497E+00	7.293E+03
2027	1.415E+07	8.564E+00	7.351E+03
<b>2028</b>	<b>1.445E+07</b>	<b>8.628E+00</b>	<b>7.406E+03</b>
2029	1.445E+07	8.290E+00	7.116E+03
2030	1.445E+07	7.965E+00	6.837E+03
2031	1.445E+07	7.653E+00	6.569E+03
2032	1.445E+07	7.353E+00	6.311E+03
2033	1.445E+07	7.064E+00	6.064E+03
2034	1.445E+07	6.787E+00	5.826E+03

**Maximum Emissions Rate**

**Appendix B: Emission Calculations  
CO, VOC and HAPs Emissions from the Landfill**

**Company Name: Browning-Ferris Waste Systems of North America, Inc.**  
**Address: 2020 Laubscher Road, Evansville, IN 47720**  
**Title V: T163-17692-00114**  
**Reviewer: ERG/ST**  
**Date: January 24, 2005**

Inputs from Landfill Gas Model (Emissions Before Controls)			
Product	m <sup>3</sup> /yr	mg/yr	tons/year
Methane	2.63E+07	1.75E+04	19,272
CO <sub>2</sub>	2.63E+07	1.75E+04	19,272
CO	7.41E+03	8.63E+00	9.49
NMOC	3.13E+04	1.12E+02	123
Fugitive Emissions from Landfill after Controls			tons/yr
CO			2.37
VOC			30.8

1. Landfill Gas (LFG) Production Rate: **5.25E+07** m<sup>3</sup>/yr (= CH<sub>4</sub> + CO<sub>2</sub> production rate from the EPA Landfill Air Emission Model - Appendix A)
2. Collection Efficiency: **75%** (AP42, Chapter 2.4)
3. Control Efficiency: **98%** (required by NSPS)

CAS Number	Compound	*HAP Concentration (ppmv)	Molecular Weight	Uncontrolled HAPs Emissions (tons/yr)	Fugitive HAPs Emissions (tons/yr)	Captured HAPs after Control Devices (tons/yr)	Total HAP Emissions (tons/yr)
71-55-6	1,1,1-Trichloroethane (methyl chloroform)	0.48	133.41	0.156	0.039	0.002	0.041
79-34-5	1,1,2,2-Tetrachloroethane	1.11	167.85	0.455	0.114	0.007	0.121
75-34-3	1,1-Dichloroethane (ethylidene dichloride)	2.35	98.97	0.568	0.142	0.009	0.151
75-35-4	1,1-Dichloroethene (vinylidene chloride)	0.20	96.94	0.047	0.012	0.001	0.013
107-06-2	1,2-Dichloroethane (ethylene dichloride)	0.41	98.96	0.099	0.025	0.001	0.026
78-87-5	1,2-Dichloropropane (propylene dichloride)	0.18	112.99	0.050	0.012	0.001	0.013
107-13-1	Acrylonitrile	6.33	53.06	0.820	0.205	0.012	0.217
75-15-0	Carbon disulfide	0.58	76.13	0.108	0.027	0.002	0.029
56-23-5	Carbon tetrachloride	0.00	153.84	0.002	0.000	0.000	0.000
463-58-1	Carbonyl sulfide	0.49	60.07	0.072	0.018	0.001	0.019
108-90-7	Chlorobenzene	0.25	112.56	0.069	0.017	0.001	0.018
75-00-3	Chloroethane (ethyl chloride)	1.25	64.52	0.197	0.049	0.003	0.052
67-66-3	Chloroform	0.03	119.39	0.009	0.002	0.000	0.002
75-09-2	Dichloromethane (methylene chloride)	14.30	84.94	2.966	0.742	0.044	0.786
100-41-4	Ethylbenzene	4.61	106.16	1.195	0.299	0.018	0.317
110-54-3	Hexane	6.57	86.18	1.383	0.346	0.021	0.366
78-93-3	Methyl ethyl ketone	7.09	72.11	1.249	0.312	0.019	0.331
108-10-1	Methyl isobutyl ketone	1.87	100.16	0.457	0.114	0.007	0.121
127-18-4	Perchloroethylene (tetrachloroethene)	3.73	165.83	1.510	0.378	0.023	0.400
79-01-6	Trichloroethylene (trichloroethene)	2.82	131.4	0.905	0.226	0.014	0.240
75-01-4	Vinyl chloride	7.34	62.5	1.120	0.280	0.017	0.297
71-43-2	Benzene	1.91	78.11	0.364	0.091	0.005	0.097
74-87-3	Methyl chloride (Chloromethane)	1.21	50.49	0.149	0.037	0.002	0.040
108-88-3	Toluene	39.30	92.13	8.842	2.210	0.133	2.343
1330-20-7	Xylene (isomers and mixture)	12.10	106.16	3.137	0.784	0.047	0.831
7647-01-0	Mercury Compounds	0.000292	200.61	0.000	0.000	0.000	0.000
	**Hydrogen Chloride	42.0	36	-	-	2.769	2.769
<b>Total Emissions</b>				<b>25.9</b>	<b>6.48</b>	<b>3.16</b>	<b>9.64</b>

\*The HAP concentrations are from AP-42, Chapter 2.4 - Municipal Solid Waste Landfills - Tables 2.4-1 and 2.4-2 (AP-42, 11/98)

\*\* HCl concentration is from AP-42, Chapter 2.4, Section 2.4.4.2. HCl only occurs in the combustion process of the control device.

#### Methodology

Uncontrolled Emissions of CO and VOC (tons/yr) = CO / VOC emissions at closure (Mg/yr)(from LandGEM 2.01) x 1.1 tons/Mg

Fugitive CO and VOC Emissions from Landfill emissions = Uncontrolled Emissions of CO and VOC (tons/yr) x (1 - Collection Efficiency)

Uncontrolled HAPs Emissions (tons/yr) = LFG Production Rate (m<sup>3</sup>/yr) x 35.31 ft<sup>3</sup>/m<sup>3</sup> x (Concentration (ppmv) / 1000,000) x 1 atm / Gas Constant (0.7302 atm-cf/lb mole-R) / Temp (60F + 460) x Mole weight of HAPs ( lbs/lbs mole) x (1 ton/2000 lbs)

Fugitive HAP Emissions = Uncontrolled HAPs Emissions (tons/yr) x (1 - Collection Efficiency)

Captured HAPs after control device = Uncontrolled HAPs Emissions (tons/yr) x Collection Efficiency x (1 - Control Efficiency)

HCl Emissions (tons/yr) = LFG Production Rate (m<sup>3</sup>/yr) x 35.31 ft<sup>3</sup>/m<sup>3</sup> x Chlorinated Compound Concentrations (ppmv) / 1000,000 x 1 atm / Gas Constant (0.7302 atm-cf/lb mole-R) / Temp (60F + 460) x Mole weight of HCl ( lbs/lbs mole) x (1 ton/2000 lbs) x Collection Efficiency

Total HAP Emissions (tons/yr) = Fugitive HAP Emissions (tons/yr) + HAPs after Control Device (tons/yr)

**Appendix B: Emission Calculations**  
**Combustion Emissions from the Enclosed Flare and Generators**

**Company Name: Browning-Ferris Waste Systems of North America, Inc.**  
**Address: 2020 Laubscher Road, Evansville, IN 47720**  
**Title V: T163-17692-00114**  
**Reviewer: ERG/ST**  
**Date: January 24, 2005**

Fuel Input MMBtu/hr	NMOC ppmv	Flow Rate scfm	Facility Description:	Emissions Unit ID #
102	565	3,400	Enclosed Flare with 3400 scfm capacity	2
1.2	565	88	Waukesha 135 HP landfill gas fueled engine/generator	3
1.2	565	88	Waukesha 135 HP landfill gas fueled engine/generator	4

Pollutant Emission Factors						
Emission Unit	PM <sup>a</sup>	PM10 <sup>a</sup>	SO <sub>2</sub> <sup>b</sup>	NOx <sup>d</sup>	CO <sup>d</sup>	NMOC <sup>c</sup>
Flare	17	17	49.6	60	200	565
IC Engines	48	48	49.6	250	470	565
	(lb/10 <sup>6</sup> dscf methane)	(lb/10 <sup>6</sup> dscf methane)	(ppmv)	(lb/10 <sup>6</sup> dscf methane)	(lb/10 <sup>6</sup> dscf methane)	(ppmv)

Potential To Emit (tons/year)						
Emission Unit	PM	PM10	SO <sub>2</sub>	NOx	CO	NMOC
2	<b>7.59</b>	<b>7.59</b>	<b>7.47</b>	<b>26.8</b>	<b>89.4</b>	<b>2.29</b>
3	<b>0.56</b>	<b>0.56</b>	<b>0.19</b>	<b>2.89</b>	<b>5.43</b>	<b>0.06</b>
4	<b>0.56</b>	<b>0.56</b>	<b>0.19</b>	<b>2.89</b>	<b>5.43</b>	<b>0.06</b>
<b>PTE Total</b>	<b>8.70</b>	<b>8.70</b>	<b>7.86</b>	<b>32.6</b>	<b>100</b>	<b>2.41</b>

<sup>a</sup> Emission Factors are from AP-42, Chapter 2.4 - Municipal Solid Waste Landfills, Table 2.4-4. (AP-42, 11/98).

Assume PM emissions equal to PM10 emissions.

<sup>b</sup> The total inlet concentration of Sulfur content compounds in AP-42, Chapter 2.4 - Municipal Solid Waste Landfills - Table 2.4-1 (AP-42, 11/98).

<sup>c</sup> The NMOC concentration is based on LandGEM model parameters for a co-disposal facility and AP-42, Chapter 2.4, Table 2.4-2 (AP-42, 11/98).

<sup>d</sup> The emission factors for NOx and CO for the flare are guaranteed emission factors provided by the manufacturer.

**Methodology**

PM / PM10 / NOx / CO Emissions (tons/yr) = Flow Rate (scfm landfill gas) / 10<sup>6</sup> x Emission Factor (lb/10<sup>6</sup> dscf) x 50% (Methane % in landfill gas)  
x 60 (min/hr) x 8760 (hr/yr) x .0005 (ton/lb)

SO<sub>2</sub> Emissions (tons/yr) = Flow Rate (scfm) x Emission Factor (ppmv) / 1000,000 x 1 atm / Gas Constant (0.7302 atm-cf/lb mole-R) / Temp (60F+ 460)  
x Mole weight of SO<sub>2</sub> (64 lbs/lbs mole) x 60 min/hr x 8760 hr/yr x 1 ton/2000 lbs

NMOC Emissions (tons/yr) = Flow Rate (scfm) x Emission Factor (ppmv) / 1000,000 x 1 atm / Gas Constant (0.7302 atm-cf/lb mole-R) / Temp (60F+ 460)  
x Mole weight of Hexane ( lbs/lbs mole) x 60 min/hr x 8760 hr/yr x 1 ton/2000 lbs x (1-98% control efficiency)

**Appendix B: Emission Calculations  
Fugitive Emissions From Unpaved Roads**

**Company Name: Browning-Ferris Waste Systems of North America, Inc.**  
**Address: 2020 Laubscher Road, Evansville, IN 47720**  
**Title V: T163-17692-00114**  
**Reviewer: ERG/ST**  
**Date: January 24, 2005**

**1. Emission Factors: AP-42**

According to AP-42, Chapter 13.2.2 - Unpaved Roads (12/03), the PM/PM10 emission factors for unpaved roads can be estimated from the following equation:

$$E = k \times (s/12)^a \times (w/3)^b \times ((365 - p)/365)$$

where:

E = emission factor (lb/vehicle mile traveled)	
s = surface material silt content (%) =	6.4 % (AP-42, Table 13.2.2-1)
w = mean vehicle weight (tons) =	25.8 tons *
k = empirical constant =	4.9 for PM and 1.5 for PM10
a = empirical constant =	0.7 for PM and 0.9 for PM10
b = empirical constant =	0.45 for PM and PM10
p = number of days per year with 0.01 inches precipitation	120

PM Emission Factor =  $4.9 \times (6.4/12)^{0.7} \times (25.8/3)^{0.45} \times ((365 - p)/365) = 5.58$  lbs/mile

PM10 Emission Factor =  $1.5 \times (6.4/12)^{0.9} \times (25.8/3)^{0.45} \times ((365 - p)/365) = 1.51$  lbs/mile

Length of Unpaved Roads in One Direction = **1.57** miles

**2. Potential to Emit (PTE) of PM/PM10 Before Control from Unpaved Roads:**

Vehicle Type	*Trucks per day	Average Vehicle Weight (tons)	Total Trip Number (trips/yr)	Traffic Component (%)	Vehicle Mile Traveled (VMT) (miles/yr)	PTE of PM (tons/yr)	PTE of PM10 (tons/yr)
Transfer Trailer	298	25.8	108,680	100.00%	341,255	952	256.9
<b>Total</b>	<b>298</b>			<b>100%</b>	<b>341,255</b>	<b>952</b>	<b>257</b>

\* This information is provided by the source.

**Methodology**

Average Vehicle Weight (ton) = (Weight of Unloaded Vehicles + Weight of Loaded Vehicles) / 2

Total Trip Number (trips/yr) = Trucks per day x 365 (days/yr)

VMT(miles/yr) = Length of Unpaved Roads in One Direction (miles) x 2 x Total Trip Numbers (trips/yr)

PTE of PM/PM10 (tons/yr) = VMT (miles/yr) x Emission Factors (lbs/mile) x 1 tons/ 2000 lbs

**3. Potential to Emit (PTE) of PM/PM10 after Control from Unpaved Roads:**

The source proposed to use wet suppression to control fugitive dust emissions. The control efficiency from wet suppression is assumed to be 90%.

PTE of PM after Control =  $952 \text{ tons/yr} \times (1-90\%) = 95.2 \text{ tons/yr}$

PTE of PM10 after Control =  $257 \text{ tons/yr} \times (1-90\%) = 25.7 \text{ tons/yr}$

**Appendix B: Emission Calculations  
Fugitive Emissions From Paved Roads**

**Company Name: Browning-Ferris Waste Systems of North America, Inc.  
Address: 2020 Laubscher Road, Evansville, IN 47720  
Title V: T163-17692-00114  
Reviewer: ERG/ST  
Date: January 24, 2005**

**1. Emission Factors: AP-42**

According to AP-42, Chapter 13.2.1 - Paved Roads (12/03), the PM/PM10 emission factors for paved roads can be estimated from the following equation:

$$E = (k \times (sL/2)^a \times (w/3)^b - C) \times (1 - p/(4 \times 365))$$

where:

E = emission factor (lb/vehicle mile traveled)  
sL = road surface silt loading (g/m<sup>2</sup>) = 2.5 (g/m<sup>2</sup>) \*  
w = mean vehicle weight (tons) = 25.8 tons \*  
k = empirical constant = 0.082 for PM and 0.016 for PM10  
a = empirical constant = 0.65  
b = empirical constant = 1.5  
C = emission factor for exhaust, brake and tire wear = 0.00047 for PM and PM10  
p = number of days per year with 0.01 inches precipitation = 120

PM Emission Factor (trucks) =  $(0.082 \times (7.4/2)^{0.65} \times (25.8/3)^{1.5} - 0.00047) \times (1 - 120/1460) =$  **2.19 lbs/mile**  
PM Emission Factor (cars) =  $(0.082 \times (7.4/2)^{0.65} \times (1.5/3)^{1.5} - 0.00047) \times (1 - 120/1460) =$  **0.03 lbs/mile**  
PM10 Emission Factor (trucks) =  $(0.016 \times (7.4/2)^{0.65} \times (25.8/3)^{1.5} - 0.00047) \times (1 - 120/1460) =$  **0.43 lbs/mile**  
PM10 Emission Factor (cars) =  $(0.016 \times (7.4/2)^{0.65} \times (1.5/3)^{1.5} - 0.00047) \times (1 - 120/1460) =$  **0.01 lbs/mile**  
Length of Paved Roads in One Direction = **0.36 miles**

**2. Potential to Emit (PTE) of PM/PM10 Before Control from Paved Roads:**

Vehicle Type	*Trucks per day	Average Vehicle Weight (tons)	Total Trip Number (trips/yr)	Traffic Component (%)	Vehicle Mile Traveled (VMT) (miles/yr)	PTE of PM (tons/yr)	PTE of PM10 (tons/yr)
Transfer Trailer	298	25.8	108,680	98.7%	78,250	85.8	16.7
Private Vehicles	4	1.5	1430	1.30%	1,030	0.02	0.00
<b>Total</b>	<b>302</b>			<b>100%</b>	<b>78250</b>	<b>85.9</b>	<b>16.7</b>

\* This information is provided by the source.

**Methodology**

Average Vehicle Weight (ton) = (Weight of Unloaded Vehicles + Weight of Loaded Vehicles) / 2  
Total Trip Number (trips/yr) = Trucks per day x 365 (days/yr)  
VMT(miles/yr) = Length of Paved Roads in One Direction (miles) x 2 x Total Trip Numbers (trips/yr)  
PTE of PM/PM10 (tons/yr) = VMT (miles/yr) x Emission Factors (lbs/mile) x 1 tons/ 2000 lbs

**3. Potential to Emit (PTE) of PM/PM10 after Control from Paved Roads:**

The source proposed to use wet suppression to control fugitive dust emissions. The control efficiency from wet suppression is assumed to be 90%.

PTE of PM after Control = 85.85 tons/yr x (1-90%) = **8.59 tons/yr**  
PTE of PM10 after Control = 16.74 tons/yr x (1-90%) = **1.67 tons/yr**