



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: May 9, 2007
RE: Jay County Landfill, Inc. / 075-23184-00029
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

**Jay County Landfill, Inc.
5825 W. 400 South
Portland, Indiana 47371**

(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.: T075-23184-00029	
Original signed by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: May 9, 2007 Expiration Date: May 9, 2012

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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.4 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)]

The Permittee owns and operates a municipal solid waste landfill.

Source Address:	5825 W. 400 South, Portland, Indiana 47371
Mailing Address:	5825 W. 400 South, Portland, Indiana 47371
SIC Code:	4953
County Location:	Jay
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

- (a) Jay County Landfill, plant ID# 075-00029, the primary operation, is located at 5825 W. 400 South, Portland, Indiana 47371; and
- (b) An independent contractor will operate a portable rock and concrete crusher operation on site.

IDEM has determined that Jay County Landfill and the independent contractor are considered one source due to contractual control. Therefore, the term "source" in the Part 70 documents refers to both Jay County Landfill and the independent contractor as one source.

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

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

- (a) One (1) municipal solid waste landfill, identified as LF1, constructed in 1970 and modified in 2003, with a maximum capacity of 13,512,776 cubic meters (approximately 13,092,500 tons of solid waste).
- (b) Four (4) 1,148 horsepower (8.9 million Btu per hour (MMBtu/hr)) engines, identified as EG1, EG2, EG3, and EG4, using landfill gas as a fuel, each with a maximum landfill gas feeding rate of 325 standard cubic feet per minute (scfm), and exhausting through stacks ES1, ES2, ES3, and ES4, respectively. Each engine is equipped with a crankcase for engine oil, which consumes a maximum of 240 gallons of engine oils per year and exhausts through a crankcase breather vent.
- (c) One (1) open flare, identified as FL1 and constructed in 1999, with a maximum heat input capacity of 45 million Btu per hour (MMBtu/hr) and a maximum flow rate of 1,500 standard cubic feet per minute (scfm) of landfill gas, and exhausting through stack FLS1. This flare does not have a bypass.

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

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

- (a) Paved and unpaved roads with public access. [326 IAC 6-4]
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, not subject to 326 IAC 20-6, consisting of one (1) parts washing station, with a maximum capacity of 20 gallons. [326 IAC 8-3-2] [326 IAC 8-3-5]
- (c) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 25 lb/day PM10, consisting of one (1) portable concrete and rock crushing operation, identified as PORT-CRUSHER, with a maximum capacity of 150 tons per hour. [326 IAC 6-3-2]

A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

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]

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, T075-23184-00029, 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, 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]

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]

- (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, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

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

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)]

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)]

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ 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 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 the "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) The "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 July 1 of each year to:

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

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 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 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]

- (a) The Permittee shall maintain and implement Preventative Maintenance Plans (PMPs) for the source as described in 326 IAC 1-6-2. At minimum, the PMPs shall include:

- (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 upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ 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]

- (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, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

- (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

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 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 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, 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, 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, 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 T075-23184-00029 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 combined permit, all previous registrations and permits are superseded by this combined new source review and 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

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]

- (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 Operating 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, 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, 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, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, 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)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, 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

- (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, 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 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 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 .
- (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
- 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]

(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

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 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 in 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 Part 70 Operating Permit
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]

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]

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, 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

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, 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, 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 forty percent (40%) 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 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

- (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

C.7 Performance Testing [326 IAC 3-6]

- (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

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 not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the Permittee submits to IDEM, OAQ, 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.8 Compliance Requirements [326 IAC 2-1.1-11]

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

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, except as otherwise provided for in 40 CFR 60, Subpart WWW. 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

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.10 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

- (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 [326 IAC 2-7-5][326 IAC 2-7-6] or other 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.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

- (b) These ERPs shall be submitted for approval to:

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

within ninety (90) days after the date of issuance of this permit.

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

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, 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.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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

- (a) Except as otherwise provided for in 40 CFR 60, Subpart WWW, 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.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

- (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, 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.16 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]

- (a) Pursuant to 326 IAC 2-6-3(b)(2), starting in 2005 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

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 on or before the date it is due.

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

- (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 makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner 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.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (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
- (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, 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.19 Compliance with 40 CFR 82 and 326 IAC 22-1

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 LF1, constructed in 1970 and modified in 2003, with a maximum capacity of 13,512,776 cubic meters (approximately 13,092,500 tons of solid waste).
- (b) Four (4) 1,148 horsepower (8.9 million Btu per hour (MMBtu/hr)) engines, identified as EG1, EG2, EG3, and EG4, using landfill gas as a fuel, each with a maximum landfill gas feeding rate of 325 standard cubic feet per minute (scfm), and exhausting through stacks ES1, ES2, ES3, and ES4, respectively. Each engine is equipped with a crankcase for engine oil, which consumes a maximum of 240 gallons of engine oils per year and exhausts through a crankcase breather vent.
- (c) One (1) open flare, identified as FL1 and constructed in 1999, with a maximum heat input capacity of 45 million Btu per hour (MMBtu/hr) and a maximum flow rate of 1,500 standard cubic feet per minute (scfm) of landfill gas, and exhausting through stack FLS1. This flare does not have a bypass.

(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] [40 CFR Part 60, Subpart A] [326 IAC 14-1-1] [40 CFR 61, Subpart M] [326 IAC 20-1-1] [40 CFR 63, 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 facility described in this section except when otherwise specified in 40 CFR Part 60, Subpart WWW.
- (b) The provisions of 40 CFR Part 61, Subpart A - General Provisions, which are incorporated as 326 IAC 14-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 61, Subpart M.
- (c) 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 facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart AAAA.
- (d) The existing four (4) landfill gas fueled engine/generators (EG1 through EG4) have no applicable requirements under the New Source Performance Standard for Municipal Solid Waste Landfills, 40 CFR Part 60, Subpart WWW, and the National Emission Standards for Hazardous Air Pollutants for Municipal Solid Waste Landfills, 40 CFR 63, Subpart AAAA.
- (e) The existing four (4) landfill gas fueled engine/generators (EG1 through EG4) have no applicable requirements under the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63, Subpart ZZZZ.

D.1.2 Standards for air emissions from municipal solid waste landfills [40 CFR 60.752] [326 IAC 12]

Pursuant to 40 CFR 60.752(b)(2)(iii), the Permittee shall route all the collected gas to a control system that complies with either of the following:

- (a) An open flare designed and operated in accordance with 40 CFR 60.18;
- (b) A control system designed and operated to reduce non-methane organic compounds (NMOC) by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC

concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in 40 CFR 60.754(d).

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

D.1.3 Operational Standards for Collection and Control Systems [40 CFR 60.753] [326 IAC 12]

In order 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 not exceed a maximum positive pressure limit of 5.0 inches water column.
 - (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 Office of Air Quality (OAQ).
- (c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 131°F (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. The Permittee has shown supporting data that the above 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 shall be determined by an oxygen meter using Method 3A or 3C 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.1.4 Monitoring [40 CFR 60.756] [326 IAC 12]

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

- (a) The Permittee uses an active gas collection system to comply with 40 CFR 60.752(b)(2)(ii)(A), and therefore 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 uses an open flare to comply 40 CFR 60.752(b)(2)(iii), and therefore shall install, calibrate, maintain, and operate according to the manufacturer's specifications, a heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.
- (c) 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 parts per million (ppm) or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

D.1.5 Municipal Solid Waste Landfill NESHAP [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) The Permittee shall comply with the general and continuing compliance requirements for the collection and control system as specified 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, the Permittee must follow the procedures in 40

CFR 60.752(b)(2). If alternatives have already been approved under 40 CFR 60, Subpart WWW, these alternatives can be used to comply with 40 CFR 63, Subpart AAAA, except that all affected sources must 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 six (6) months as specified in 40 CFR 63.1980(a) and (b), including information on all deviations that occurred during the six (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 three (3) hour monitoring block average (as defined in 40 CFR 63.1975).

D.1.6 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, (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 40 CFR 61.154 (b) or 40 CFR 61.154 (c).
- (b) At the end of each operating day, or 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 Administrator. 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 Administrator 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 posted in such a manner and location that a person can easily read the legend; and
 - (2) Conform to the requirements of 51 cm x 36 cm upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and
 - (3) Display the information contained in the legend provided in 40 CFR 61.154(b)(1)(iii).

Compliance Determination Requirements

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [40 CFR 60.754]

- (a) Pursuant to 40 CFR 60.754(b):

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_{NMOC} = mass emission rate of NMOC, megagrams per year

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

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

- (1) The flow rate of landfill gas, Q_{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_{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_{NMOC} as carbon to C_{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 Office of Air Quality.
- (b) Pursuant to 40 CFR 60.754(d):

For the performance testing required in 40 CFR 60.752(b)(2)(iii)(B), Method 25, 25C or Method 18 of appendix A of 40 CFR 60 shall be used to determine compliance with 98 weight percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Office of Air Quality (OAQ) or the U.S. EPA 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, 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.1.8 Compliance Determination [40 CFR 63.1960]

Pursuant to 40 CFR 63.1960, compliance with 40 CFR 63, Subpart AAAA is determined by the following:

- (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, are 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 63, Subpart AAAA and has deviated from the requirements of this subpart.
- (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 must be maintained on site. Failure to write, implement, or maintain a copy of the SSM plan is a deviation from the requirements of this subpart.

D.1.9 Monitoring [40 CFR 60.756]

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

- (a) The Permittee seeking to comply with 40 CFR 60.752(b)(2)(ii)(A) for an active gas collection 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 FR 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 seeking to comply with 40 CFR 60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturers specifications the following equipment (except as otherwise provided for in 40 CFR 60, Subpart WWW or approved variances contained within the Collection and Control System Design Plan):
 - (1) Heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.
- (c) The Permittee seeking to install a collection system that does not meet the specifications in 40 CFR 60.759 or seeking to monitor alternative parameters to those required by 40 CFR 60.753 through 40 CFR 60.756 shall provide information satisfactory to the Office of Air Quality (OAQ) as provided in 40 CFR 60.752(b)(2)(i)(B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Office of Air Quality (OAQ) may specify additional appropriate monitoring procedures.
- (d) The Permittee seeking to demonstrate 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). 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.

D.1.10 Compliance Provisions [40 CFR 60.755]

- (a) Except as provided in 40 CFR 60.752(b)(2)(ii)(B), the specified methods below shall be used to determine whether the gas collection system is in compliance with 40 CFR 60.752(b)(2)(ii).
 - (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 L_0 kinetic factors should be those

published in the most recent Compilation of Air Pollution Emission Factors (AP42) or other site-specific values demonstrated to be appropriate and approved by the Office of Air Quality (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:

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

where,

Q_m = maximum expected gas generation flow rate, cubic meters per year
 L_o = methane generation potential, cubic meters per megagram solid waste
 R = average annual acceptance rate, megagrams per year
 k = methane generation rate constant, year⁻¹
 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:

$$Q_M = \sum_{i=1}^n 2 k L_o M_i (e^{-kt_i})$$

where,

Q_M = maximum expected gas generation flow rate, cubic meters per year
 k = methane generation rate constant, (per year)
 L_o = methane generation potential, cubic meters per 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 Office of Air Quality (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 Administrator 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 Administrator for approval.
 - (6) If the Permittee seeks to demonstrate 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, the Permittee shall provide information satisfactory to the Office of Air Quality (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)(ii). 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 re-monitoring shows a third exceedance for the same location, the action specified in paragraph 40 CFR 60.755(c)(4)(v) of this section 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 10-day remonitoring 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 remonitoring 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 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 Office of Air Quality (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) The Permittee seeking to comply with the provisions of 40 CFR 60.755(c) 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 the 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 startup, 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, except as otherwise provided for in 40 CFR 60, Subpart WWW or approved variance contained within the Collection and Control System Design Plan.

D.1.11 Calculation of Non-Methane Organic Compound (NMOC) Rate [40 CFR 60.754] [326 IAC 12]

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 AP-42 or other approved measurement procedures. If a collection system, which complies with the provisions of 40 CFR 60.752(b)(2) is already installed, the Permittee shall estimate the NMOC emission rate using the procedures provided in 40 CFR 60.754(b).

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

D.1.12 Reporting Requirements [40 CFR 60.757]

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

- (a) Submit a closure report to the Office of Air Quality (OAQ) within thirty days of waste acceptance cessation. The Office of Air Quality (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 Office of Air Quality (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 Office of Air Quality (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 fifteen year control period begins upon initial operation of the gas collection and control system. The Office of Air Quality (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) Annual reports of the following recorded information. The initial annual 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 and flares, reportable exceedances are defined under 40 CFR 60.758(c), except as otherwise provided for an approved collection and control system design plan. [Note: Per Condition D.1.14(a), the Permittee shall submit this report every six months.]
 - (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 control device was not operating for a period exceeding one (1) hour and length of time the control device was not operating.
 - (3) All periods when the collection system was not operating in excess of five (5) days.
 - (4) 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.
 - (5) 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).
- (d) The Permittee seeking to comply with 40 CFR 40.752(b)(2)(iii) shall include the following information with the initial performance test report required under 40 CFR 60.8:

- (1) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion.
 - (2) The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based.
 - (3) The documentation of the presence of asbestos or non-degradable material for each area from which collection wells have been excluded based on the presence of asbestos or non-degradable material.
 - (4) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area.
 - (5) The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill
 - (6) The provision for the control of off-site migration.
- (e) A summary of the above information shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit.

D.1.13 Record Keeping Requirements [326 IAC 12] [40 CFR 60.758]

- (a) Except as provided in 40 CFR 60.752(b)(2)(i)(B), the Permittee subject to 40 CFR 60.752(b) shall keep for at least 5 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), or approved variances contained within the collection and control system design plan, the Permittee of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment listed in (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) Where the Permittee subject to the provisions of 40 CFR 60.758 seeks to demonstrate compliance with 40 CFR 60.752(b)(2)(ii):

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 Office of Air Quality (OAQ).

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) Where the Permittee subject to the provisions of 40 CFR 60.758 seeks to demonstrate compliance with 40 CFR 60.752(b)(2)(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air -assisted, or nonassisted), all visible emission readings, heat content determination, flow rate measurements, and exit

velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

- (c) Except as provided in 40 CFR 60.752(b)(2)(i)(B), or approved variances contained within the Collection and Control System Design Plan required pursuant to this rule, the Permittee of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the 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 Permittee seeking to comply with the provisions of 40 CFR 60.758 by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under 40 CFR 60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.
- (d) Except as provided in 40 CFR 60.752(b)(2)(i)(B), the Permittee subject to the provisions of this subpart 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 subject to the provisions of 40 CFR 60.758 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 subject to the provisions of 40 CFR 60.758 shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or non-degradable 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 subject to the provisions of this subpart shall keep for at least 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.1.14 Record Keeping and Reporting Requirements for NESHAP for Municipal Solid Waste Landfills [40 CFR 63.1980]

Pursuant to 40 CFR 63.1980, the Permittee shall:

- (a) Keep records and reports as specified in 40 CFR 60, Subpart WWW, or in the Federal plan, EPA approved State plan or tribal plan that implements 40 CFR 60, Subpart Cc, whichever applies to this landfill, with one exception: The Permittee must submit the annual report described in 40 CFR 60.757(f) and Condition D.1.12(d) every 6 months (January 30th and July 30th).
- (b) 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.1.15 Record keeping and Reporting Requirements for NESHAP for Active Asbestos Waste Disposal Sites [40 CFR 61.154] [326 IAC 14]

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 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; and
 - (E) The date of the receipt.
 - (2) As soon as possible and no longer than 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 for at least 2 years.
- (b) 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.
- (c) Upon closure, comply with all the provisions of 40 CFR 61.151.
- (d) Submit to the Administrator, 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 Administrator, all records required under this section.
- (f) Notify the Administrator 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 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:

- (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 Administrator may require changes in the emission control procedures to be used.
- (4) Location of any temporary storage site and the final disposal site.

SECTION D.2

FACILITY OPERATION CONDITIONS

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

- (c) One (1) portable concrete and rock crushing operation, identified as PORT-CRUSHER, with a maximum capacity of 150 tons per hour. [326 IAC 6-3-2]

(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.2.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the rock crushing operation shall not exceed 55.4 pounds per hour when operating at a process weight rate of 150 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

SECTION D.3 FACILITY OPERATION CONDITIONS

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

- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6:
- (1) One (1) parts washing station, with a maximum capacity of 20 gallons. [326 IAC 8-3-2] [326 IAC 8-3-5]

(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.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.3.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:
- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
- (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
- (B) The solvent is agitated; or
- (C) The solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in water and heavier than water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Jay County Landfill, Inc.
Source Address: 5825 W. 400 South, Portland, Indiana 47371
Mailing Address: 5825 W. 400 South, Portland, Indiana 47371
Part 70 Permit No.: 075-23184-00029

**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**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Jay County Landfill, Inc.
Source Address: 5825 W. 400 South, Portland, Indiana 47371
Mailing Address: 5825 W. 400 South, Portland, Indiana 47371
Part 70 Permit No.: 075-23184-00029

This form consists of 2 pages

Page 1 of 2

- | |
|---|
| <p><input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12)</p> <ul style="list-style-type: none">• 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• 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 ₂ , VOC, NO _x , 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
 PART 70 OPERATING PERMIT
 QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Jay County Landfill, Inc.
 Source Address: 5825 W. 400 South, Portland, Indiana 47371
 Mailing Address: 5825 W. 400 South, Portland, Indiana 47371
 Part 70 Permit No.: 075-23184-00029

Months: _____ **to** _____ **Year:** _____

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

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Jay County Landfill, Inc.
Source Location:	5825 W. 400 South, Portland, Indiana 47371
County:	Jay
SIC Code:	4953
Operation Permit No.:	T075-23184-00029
Permit Reviewer:	ERG/ST

On March 23, 2007, the Office of Air Quality (OAQ) had a notice published in the Commercial Review, Portland, Indiana, stating that Jay County Landfill, Inc. had applied for a Part 70 Operating Permit Renewal to operate a stationary municipal solid waste landfill with control. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On March 12, 2007, Jay County Landfill, Inc. submitted comments on the proposed Part 70 Renewal. The summary of the comments is as follows (bolded language has been added, the language with a line through it has been deleted):

Comment 1: In Section A.4 (Insignificant Activities), the paved and unpaved roads are insignificant activities, but they are not “specifically regulated” (i.e., have applicable requirements). Therefore, please remove paragraph (a) from this section and renumber the remaining paragraphs accordingly.

IDEM Response to Comment 1: The paved and unpaved roads are sources of fugitive dust and are specifically regulated under 326 IAC 6-4. The requirements under 326 IAC 6-4 are specified in Condition C.5 of the permit. No changes will be made as a result of this comment.

Comment 2: In Condition B.15 (Deviations from Permit Requirements and Conditions), the renewal permit should include the terms and conditions similar to that of other Part 70 permits issued to municipal solid waste landfills. Waste Management worked closely with IDEM to come up with acceptable language, and does not want to see this effort discarded in the renewal permit. Specifically, these permits contained the following language in Condition B.15-Deviations:

Deviations from any permit requirements...shall be reported to...within ten (10) calendar days from the date of the discovery of the deviation *except as allowed for in 40 CFR 60, Subpart WWW or approved variances contained within the Collection and Control System Design Plan required pursuant to this rule.*

IDEM Response to Comment 2: The language used in the draft permit allowed for a different schedule or submittal procedure for deviation reports required by another applicable requirement independent of the Title V. IDEM prefers to use this more general language than the specific language provided by the source, because it will cover all other applicable requirements, and not just the Collection and Control System Design Plan required by 40 CFR 60, Subpart WWW. Also, the deviation report for all Title V provisions is now required by IDEM on a quarterly basis and not within ten (10) calendar days.

Comment 3: In Condition C.9 (Compliance Monitoring), the condition should be revised to reflect the IDEM-negotiated language of the original Part 70 permit (Condition C.10). Please add the language as follows:

Unless otherwise specified in this permit.....shall be implemented within ninety (90) days of permit issuance, except as otherwise provided for in 40 CFR 60, Subpart WWW or *approved variances contained within the Collection and Control System Design Plan required pursuant to this rule.*

IDEM Response to Comment 3: The language that the Permittee refers to applies to any new monitoring that has been previously required and has been included in this permit. All of the monitoring provisions of 40 CFR 60, Subpart WWW and the Collection and Control System Design Plan should have been implemented previously. IDEM prefers to keep the language in the draft permit which would cover any new compliance monitoring. This is a basic provision.

Comment 4: In Condition C.14 (Response to Excursions or Exceedances), 40 CFR 60, Subpart WWW and the design plan that it requires, may specify different procedures for addressing exceedances and deviations from 40 CFR 60, Subpart WWW. Please add the language in italics as to Paragraph (a) of this condition as follows:

Except as otherwise provided for in 40 CFR 60, Subpart WWW or *approved variances contained within the Collection and Control System Design Plan required pursuant to this rule*, upon detecting an excursion or exceedance...

IDEM Response to Comment 4: Paragraph (a) of Condition C.14 states that once the source detects an excursion or exceedance that they must bring the unit back to normal operations as "expeditiously as practicable". The requirements of 40 CFR 60, Subpart WWW and the specifications of the Collection and Control System Design Plan may provide further details or how this must be done, but they do not change basic requirement of addressing an excursion or exceedance as quickly as possible. No changes were made as a result of this comment.

Comment 5: In Condition D.1.12 (Reporting Requirements), the Design Plan required by Paragraph (a) was submitted in October 2003. Please remove this paragraph and renumber the remaining paragraphs accordingly.

IDEM Response to Comment 5: Condition D.1.12, paragraph (a) has been removed and the remaining paragraphs have been re-numbered. The permit has been revised as follows:

D.1.12 Reporting Requirements [40 CFR 60.757]

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

- (a) ~~Submit a collection and control system design plan to the Office of Air Quality (OAQ) within one (1) year of the first non-methane organic compound (NMOC) emission rate report, required under 40 CFR 60.757(b), in which NMOC emission rate exceeds 50 megagrams (Mg) per year; except if the Permittee elects to recalculate the NMOC emission rate after Tier 2 sampling and analysis as provided in 40 CFR 60.754(a)(3) and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the~~

~~calculated emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within 180 days of the first calculated exceedance of 50 megagrams per year. If the Permittee elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in 40 CFR 60.754(a)(4), and the resulting NMOC emission rate is less than 50 megagrams per year, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of 40 CFR 60.754(a)(4) and the resulting site-specific methane generation rate constant (k) shall be submitted to the Office of Air Quality (OAQ) within one (1) year of the first calculated emission rate exceeding 50 megagrams per year.~~

~~(b)(a)~~ . . .

~~(c)(b)~~ . . .

~~(d)(c)~~ . . .

~~(e)(d)~~ . . .

~~(f)(e)~~ . . .

Comment 6: In the Technical Support Document, Insignificant Activities section, paragraph (k), please remove the brazing, welding, soldering, and cutting operations, as these are considered “trivial” activities under 326 IAC 2-7-1(40). In the Technical Support Document, Federal Rule Applicability section, paragraph (b) references an incorrect Part 70 permit number and issue date. Jay County Landfill was issued Part 70 Operating Permit number 075-12836-00029 on March 26, 2002, not number 091-12836-00067. Also, in the Technical Support Document, Federal Rule Applicability section, paragraph (f) incorrectly states that there is a 1,500 scfm, not a 4,000 scfm flare, present at the source. Please revise Paragraph (f) accordingly. In addition, the correct Federal Register citation regarding the definition of a landfill gas treatment should be May 23, 2002, not May 22, 2002.

IDEM Response to Comment 6: No changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Comment 7: In Appendix A to the TSD, a methane generation constant, k, of 0.05/year and a methane generation potential, Lo, of 170 cubic meters per megagram should only be used for the NMOC emission rate report required by 40 CFR 60.757(b) and not for permitting purposes. The United States Environmental Protection Agency (USEPA) has emphasized this point in the MUNICIPAL SOLID WASTE LANDFILL NEW SOURCE PERFORMANCE STANDARDS (NSPS) AND EMISSION GUIDELINES (EG) - QUESTIONS AND ANSWERS, November 1998, Page 22. Therefore, please recalculate potential landfill gas emissions as presented in the renewal application (k = 0.027, Lo = 139.6).

IDEM Response to Comment 7: The results of LandGEM calculations presented in Appendix A to the TSD, pages 1 through 6, are actually based on using the site-specific values of k = 0.027, Lo = 139.6, and NMOC concentration = 557.8, as submitted by the Permittee in their application. Page 1 of Appendix A to the TSD incorrectly notes that values of k = 0.05 and Lo = 170 were

used in the calculations. Therefore, the results of the calculations are correct and reflect the quantity of gas generated using these site-specific values for k and Lo.

Comment 8: In Appendix B to the TSD, the HAP emission calculations do not incorporate the most recent findings by the USEPA regarding the composition of landfill gas. Please review the attached documentation and update Appendix B accordingly.

IDEM Response to Comment 8: The USEPA study examined the quality and composition of the gas generated by modern, state-of-the-art municipal solid waste landfills. However, the study does not indicate what constitutes a modern landfill. Jay County Landfill was constructed in 1970, and the quality and composition of the gas generated is unknown. Further, the findings of the USEPA have not been published in the AP-42, so it can only be assumed that the USEPA has not accepted these test results as being representative of the emissions from all municipal solid waste landfills. No changes have been made as a result of this comment.

Indiana Department of Environmental Management Office of Air Quality

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

Source Background and Description

Source Name:	Jay County Landfill, Inc.
Source Location:	5825 W. 400 South, Portland, Indiana 47371
County:	Jay
SIC Code:	4953
Operation Permit No.:	075-12836-00029
Operation Permit Issuance Date:	March 26, 2002
Permit Modification No.:	075-23184-00029
Permit Reviewer:	ERG/ST

The Office of Air Quality (OAQ) has reviewed a Part 70 Operating Permit Renewal application from Jay County Landfill, Inc. relating to the operation of a stationary municipal solid waste landfill.

History

Jay County Landfill opened in 1970. Its design capacity is 13,512,776 cubic meters or 11.877 million megagrams of solid waste. Landfill gas from this landfill is fed to four engine/generators. A 1,500 standard cubic feet per minute (scfm) open flare is used as backup when the engine generators are not operating. Jay County Landfill received a permit to construct a 3,000 scfm open flare in 2003, but this flare was not installed. The landfill has received asbestos-containing material. The landfill expects to close in 2031, based on current estimates of future waste receipts.

Source Definition

This municipal solid waste landfill consists of a source with an on-site contractor:

- (a) Jay County Landfill, plant ID# 075-00029, the primary operation, is located at 5825 W. 400 South, Portland, Indiana 47371; and
- (b) An independent contractor will operate a portable rock and concrete crusher operation on site.

IDEM has determined that Jay County Landfill and the independent contractor are considered one source due to contractual control. Therefore, the term "source" in the Part 70 documents refers to both Jay County Landfill and the independent contractor as one source.

Permitted Emission Units and Pollution Control Equipment

- (a) One (1) municipal solid waste landfill, identified as LF1, constructed in 1970 and modified in 2003, with a maximum capacity of 13,512,776 cubic meters (approximately 13,092,500 tons of solid waste).
- (b) Four (4) 1,148 horsepower (8.9 million Btu per hour (MMBtu/hr)) engines, identified as EG1, EG2, EG3, and EG4, using landfill gas as a fuel, each with a maximum landfill gas feeding rate of 325 standard cubic feet per minute (scfm), and exhausting through stacks ES1, ES2, ES3, and ES4, respectively. Each engine is equipped with a crankcase for

engine oil, which consumes a maximum of 240 gallons of engine oils per year and exhausts through a crankcase breather vent.

- (c) One (1) open flare, identified as FL1 and constructed in 1999, with a maximum heat input capacity of 45 million Btu per hour (MMBtu/hr) and a maximum flow rate of 1,500 standard cubic feet per minute (scfm) of landfill gas, and exhausting through stack FLS1. This flare does not have a bypass.

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 with public access. [326 IAC 6-4]
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, not subject to 326 IAC 20-6, consisting of one (1) parts washing station, with a maximum capacity of 20 gallons. [326 IAC 8-3-2] [326 IAC 8-3-5]
- (c) Activities with emissions equal to or less than the following thresholds: 5 pounds per hour (lb/hr) or 25 pounds per day (lb/day) of PM10, consisting of one (1) portable concrete and rock crushing operation, identified as PORT-CRUSHER, with a maximum capacity of 150 tons per hour. [326 IAC 6-3-2]
- (d) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 25 lb/day PM10; 5 lb/hr or 25 lb/day SO₂; 5 lb/hr or 25 lb/day NO_x; 3 lb/hr or 15 lb/day VOC; 0.6 tons per year Pb; 5 lb/day or 1.0 ton/yr of a single HAP, and 12.5 lb/day or 2.5 ton/yr of any combination of HAPs, consisting of 34 passive landfill gas flares.
- (e) Propane or liquified petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour, consisting of two (2) 0.15 MMBtu/hour propane heaters.
- (f) 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, consisting of one (1) 115 horsepower diesel-fueled tipper engine, identified as TIPPER1.
- (g) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons, consisting of one (1) gasoline tank with a capacity of 250 gallons.
- (h) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month, consisting of three (3) diesel fuel storage tanks with capacities of 1,000 gallons, 1,500 gallons and 10,000 gallons, respectively.
- (i) The following VOC and HAP storage containers:
 - (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons, consisting of two (2) antifreeze tanks and one kerosene drum.
 - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids, consisting of seven (7) tanks.

- (j) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to one percent (1%) by volume, consisting of a leachate treatment system with a treatment lagoon, three (3) 20,000 gallon tanks and a spray system for applying treated leachate to the ground.
- (k) The following equipment related to equipment maintenance activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. These activities are "trivial activities" under 326 IAC 2-7-1(40).

Existing Approvals

The source has been operating under Title V Operating Permit 075-12836-00029, issued on March 26, 2002, and the following approvals:

- (a) Interim Significant Source Modification 075-16124I-00029, issued October 8, 2002;
- (b) First Significant Source Modification 075-16124-00029, issued January 29, 2003;
- (c) First Significant Permit Modification 075-16132-00029, issued February 14, 2003;
- (d) Second Significant Source Modification 075-17304-00029, issued November 10, 2003;
- (e) Second Significant Permit Modification 075-17783-00029, issued December 23, 2003;
- (f) First Administrative Amendment 075-21160-00029, issued June 29, 2005; and
- (g) Third Significant Permit Modification 075-21786-00029, issued February 17, 2006.

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 June 5, 2006.

Emission Calculations

See Appendix A of this document for detailed calculations of fugitive methane (CH₄), non-methane organic compounds (NMOC) and carbon monoxide (CO) emissions from the landfill using the EPA LandGEM model (Version 3.02).

See Appendix B of this document for detailed emissions calculations of all criteria pollutants and HAPs from the controlled landfill, the flare, the landfill gas engine/generators, and roads at closure.

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 March 26, 2002. 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 ₂	VOC	CO*	NO _x	HAPs
Landfill (LF1) (fugitive)	-	-	0	31.7	2.6	0	6.76
1,500 scfm Flare (FL1)	3.4	3.4	3.3	1.0	39.4	11.8	3.44
Four (4) Engine Generators (EG1 - EG4)	8.2	8.2	2.9	0.86	80.3	42.7	
Paved and Unpaved Roads (fugitive)*	4.8	1.3	0	0	0	0	0
Tipper Engine	0.4	0.4	0.37	0.46	1.22	7.67	-
Rock Crusher	3.55	1.58	0	0	0	0	0
Total PTE*	15.6	13.6	6.6	40.0	124	52.1	10.2

* Emissions are insignificant (less than 0.1 tons per year).

* Fugitive emissions from the roads are not considered towards major source determination.

- (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 40 CFR 60.752, the source is subject to the provisions of 326 IAC 2-7 because this source has a design capacity greater than 2.5 million megagrams and 2.5 million cubic meters.
- (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 2003 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM10	2
PM2.5	1
SO ₂	6
VOC	14
CO	64
NO _x	12
HAP	Not reported

County Attainment Status

The source is located in Jay County.

Pollutant	Status
PM	Attainment
PM10	Attainment
SO ₂	Attainment
NO ₂	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

Note: On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

- (a) Jay County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.
- (b) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Jay County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (c) Jay County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

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 assure that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Federal Rule Applicability

- (a) The landfill and 3,000 scfm flare at this source are exempt from Compliance Assurance Monitoring under 40 CFR 64.2(b)(i), as they are regulated under emission limitations or standards (NSPS and NESHAP) proposed by the Administrator after November 15, 1990. The four landfill gas-fired engine/generators at this source are exempt from Compliance Assurance Monitoring under 40 CFR 64.2(b)(i), because none of these facilities has the potential to emit greater than 100 tons per year of any regulated pollutant prior to controls.
- (b) The landfill and open flare (FL1) at this source are subject to the New Source Performance Standard for Municipal Solid Waste Landfills 326 IAC 12, (40 CFR 60.750, Subpart WWW) because the municipal solid waste landfill commenced construction, reconstruction or modification or began accepting waste on or after May 30, 1991. The requirements of 40 CFR 60, Subpart WWW previously applied to this landfill and are contained in the Title V permit 091-12836-00067 issued on March 26, 2002. Non-applicable portions of the NSPS will not be included in the permit. The landfill and open flare (FL1) are subject to the following portions of 40 CFR 60, Subpart WWW.
 1. 40 CFR 60.750
 2. 40 CFR 60.751
 3. 40 CFR 60.752(b), (d)
 4. 40 CFR 60.753
 5. 40 CFR 60.754
 6. 40 CFR 60.755
 7. 40 CFR 60.756(a), (c)(1), (d), (e), (f)
 8. 40 CFR 60.757(c), (d), (e), (f), (g)
 9. 40 CFR 60.758
 10. 40 CFR 60.759

The provisions of 40 CFR 60 Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart WWW.

- (c) The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (40 CFR 60, Subpart Kb) are not included in this permit for the three (3) 20,000 gallon leachate storage tanks because the capacity of the tanks (90.9 cubic meters) is greater than 75 cubic meters but less than 151 cubic meters and the tank contains a volatile organic liquid with a maximum true vapor pressure of less than 15.0 kilopascals (kPa).
- (d) The requirements of the New Source Performance Standards for Nonmetallic Mineral Processing Plants (40 CFR 60, Subpart OOO) are not included in this permit for the insignificant rock and concrete crushing operations (PORT-CRUSHER) because this crusher operation processes less than 150 tons of material per hour.
- (e) This landfill accepts wastes containing asbestos. 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 requirements of 40 CFR 61.154. Non-applicable portions of the NESHAP will not be included in the permit. The landfill is subject to the following portions of 40 CFR 61, Subpart M.

1. 40 CFR 61.140
2. 40 CFR 61.141
3. 40 CFR 61.154
4. 40 CFR 61.157

The provisions of 40 CFR 61 Subpart A – General Provisions, which are incorporated as 326 IAC 14-1, apply to the facility described in this section except when otherwise specified in 40 CFR 61, Subpart M.

Note: 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 or at the end of each operating day.

- (f) The landfill and 4,000 scfm flare at this source are 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). 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). This landfill site does not include a bioreactor, as defined in 40 CFR 63.1990. Non-applicable portions of the NESHAP will not be included in the permit. The landfill is subject to the following portions of 40 CFR 63, Subpart AAAA.

1. 40 CFR 63.1935(a)(3)
2. 40 CFR 63.1940
3. 40 CFR 63.1945(b)
4. 40 CFR 63.1950
5. 40 CFR 63.1955(a)(1), (b), (c)
6. 40 CFR 63.1960
7. 40 CFR 63.1965
8. 40 CFR 63.1975
9. 40 CFR 63.1980(a), (b)
10. 40 CFR 63.1985
11. 40 CFR 63.1990
12. Table 1 to 40 CFR 63, Subpart AAAA

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63, Subpart AAAA.

- (g) The requirements of 40 CFR 60, Subpart WWW and 40 CFR 63, Subpart AAAA, are not included in this permit for the four (4) landfill gas-fueled engine/generators (EG-1 through EG-4). These engine/generators use treated landfill gas as fuel. Pursuant to 40 CFR 60.752(b)(2)(iii), the Permittee is required to route all collected landfill gas to a control system that complies with the requirements in either paragraph (b)(iii)(A), (B), or (C) of 40 CFR 60.752. The Permittee operates an energy recovery plant in which the landfill gas is collected and treated prior to use in the landfill gas-fueled engine/generators. The Permittee has chosen to treat the portion of landfill gas that is used in the engine/generators, pursuant to 40 CFR 60.752(b)(2)(iii)(C). The Permittee's treatment system meets the definition of a treatment system as defined by U.S. EPA in a notice of proposed rulemaking published in the Federal Register [67 FR 36480] on May 22, 2002. 40 CFR 60, Subpart WWW and, by extension, 40 CFR 63, Subpart AAAA, do not regulate devices that use landfill gas after it is treated pursuant to 40 CFR 60.752(b)(2)(iii)(C). The treatment system fulfills the Permittee's requirements under 40 CFR 60, Subpart WWW.

Pursuant to a letter from EPA Region V, dated February 23, 2005, the existing four (4) landfill gas fueled engine/generators (EG1 through EG4) at Jay County Landfill that combust treated landfill gas are not subject to the requirements in 40 CFR Part 60,

Subpart WWW and 40 CFR 63, Subpart AAAA because the existing four (4) landfill gas fueled engine/generators (EG1 through EG4) have no applicable requirements under the New Source Performance Standard for Municipal Solid Waste Landfills, 40 CFR Part 60, Subpart WWW, and the National Emission Standards for Hazardous Air Pollutants for Municipal Solid Waste Landfills, 40 CFR 63, Subpart AAAA.

- (h) 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 four (4) landfill gas-fueled engine/generators, identified as EG-1 through EG-4. This source is not a major source of HAP emissions, as defined in 40 CFR 63.2.
- (i) The requirements of the National Emission Standards for Halogenated Solvent Cleaning (326 IAC 20-6, 40 CFR 63, Subpart T) are not included in this permit for the degreasing operations. The degreaser does not use a solvent containing methylene chloride, perchlorethylene, trichlorethylene, 1,1,1-trichlorethane, carbon tetrachloride, chloroform or any combination of these halogenated HAP solvents in a total concentration greater than five percent (5%) by weight as a cleaning or drying agent.

State Rule Applicability – Entire Source

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

This source was constructed in 1970. 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 are not counted towards applicability of PSD. The source is located in Jay County. Jay County is an attainment area for all criteria pollutants.

At the time that the Title V Operating Permit 075-12836-00029 was issued on March 26, 2002, the PTE of PM, PM10, SO₂, VOC, CO, and NO_x was less than 250 tons per year. The source was a minor source under PSD.

In January 2003, under the First Significant Source Modification 075-16124-00029, the source installed four (4) landfill gas engine/generators and source insignificant activities. The increase in PTE for PM, PM10, SO₂, NO_x, VOC and CO due to this modification was less than 250 tons per year. This modification did not trigger PSD review because the net emissions increase of all pollutants was less than the PSD threshold of 250 tons per year. Subsequent to the addition of the four (4) engine/generators, the source remained a minor PSD source, as emissions of all regulated pollutants from the source were less than 250 tons per year.

In November 2003, under the Second Significant Source Modification 075-17304-00029, the source replaced an existing 1,500 scfm flare with a 3,000 scfm flare. The increase in PTE for PM, PM10, SO₂, NO_x, VOC and CO due to this modification was less than 250 tons per year. This modification did not trigger PSD review because the net emissions increase of all pollutants was less than the PSD threshold of 250 tons per year. Subsequent to the addition of the flare, the source remained a minor PSD source, as emissions of all regulated pollutants from the source were less than 250 tons per year.

In June 2005, under the First Administrative Amendment 075-21160-00029, the source installed a portable rock crushing operation. The increase in PTE for PM, PM10, SO₂, NO_x, VOC and CO due to this modification was less than 250 tons per year. This modification did not trigger PSD review because the net emissions increase of all pollutants was less than the PSD threshold of 250 tons per year. Subsequent to the addition of the flare, the source remained a minor PSD source, as emissions of all regulated pollutants from the source were less than 250 tons per year.

The PTE for PM, PM10, PM2.5, SO₂, NO_x, VOC and CO for the entire source is less than 250 tons per year. The source is currently a minor source under PSD.

326 IAC 2-4.1-1 (New Source Toxics Control)

The requirements of 326 IAC 2-4.1 are not applicable to this source. This landfill site has not installed any new major sources of HAPs since July 27, 1997.

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 2005 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)

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 forty percent (40%) 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 not located in a county listed in 326 IAC 6-5-1(a) and has received all of the necessary preconstruction approvals prior to December 13, 1985, and has not added a facility with the potential to emit fugitive particulate matter, which requires a permit as set forth in 326 IAC 2, after December 13, 1985. Therefore, pursuant to 326 IAC 6-5-1(a) and (b), this source is not subject to the requirements of 326 IAC 6-5.

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.

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 landfill is located in Jay County, commenced construction prior to May 30, 1991 and has accepted waste after November 8, 1987. However, the source was modified after May 30, 1991. Therefore, it does not meet the definition of “existing municipal solid waste landfill” as defined in 326 IAC 8-8.1-2(b). Therefore, the requirements of 326 IAC 8-8.1 do not apply.

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

This source 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.

State Rule Applicability – Open Flare and Engine/Generators

326 IAC 7-1.1 (Sulfur Dioxide Limitations)

The flare and engine/generators at this source do not have the potential to emit greater than twenty-five (25) tons per year or ten (10) pounds per hour of sulfur dioxide. Therefore, the requirements of 326 IAC 7-1.1 do not apply to the flare or engine/generators.

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

This source 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 the open flare or engine/generators.

State Rule Applicability – Degreaser

326 IAC 8-3-2 (Cold Cleaner Operations)

This cold cleaner degreasing facility is located in Jay County, was constructed after January 1, 1980 and is used to perform organic solvent degreasing operations. Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the Permittee of a cold cleaning facility shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

This cold cleaner degreasing facility is located in Jay County, was constructed after January 1, 1990, is used to perform organic solvent degreasing operations and does not have a remote solvent reservoir. Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the Permittee of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

- (a) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (1) The solvent volatility is greater than two (2) kilo Pascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (2) The solvent is agitated; or
 - (3) The solvent is heated.
- (b) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kilo Pascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (c) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (d) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (e) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kilo Pascals (thirty-two (32) millimeters of

mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

- (1) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
- (2) A water cover when solvent used is insoluble in water and heavier than water.
- (3) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the Permittee of a cold cleaning facility shall ensure that the following operating requirements are met:

- (a) Close the cover whenever articles are not being handled in the degreaser.
- (b) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
- (c) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

State Rule Applicability – Welding, Brazing, Cutting and Soldering Equipment

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

The brazing equipment, cutting torches, soldering equipment and welding equipment are used for equipment maintenance, and not manufacturing activities. These activities are not a "manufacturing process", as that term is defined in 326 IAC 6-3-1.5. Therefore, the requirements of 326 IAC 6-3 do not apply. These activities are "trivial activities" under 326 IAC 2-7-1(40).

State Rule Applicability – Rock Crusher

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the rock crushing operation shall not exceed 55.4 pounds per hour when operating at a process weight rate of 150 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

Calculations show that the rock crushing operations can comply with the emission limits in 326 IAC 6-3-2. (See Appendix A, page 5) Actual emissions are less than 25 tons per year.

State Rule Applicability – Tipper Engine

Pursuant to 326 IAC 2-7-1(21)(G)(i)(BB), this tipper engine is an insignificant activity. The PTE for this activity is below the exemption levels in 326 IAC 2-1.1-3 (see calculations in Appendix A).

State Rule Applicability – Leachate and Fuel Storage Tanks

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

The above ground storage tanks are not subject to 326 IAC 8-9 because they are not located in Clark, Floyd, Lake or Porter County.

Testing Requirements

There are no testing requirements because the major pollutants released by the source are carbon monoxide (CO) and volatile organic compounds (VOC) and the only control device is an open flare, which cannot be tested. Monitoring of the pilot flame is considered adequate for ensuring compliance.

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 active landfill gas collection system has applicable compliance monitoring conditions as specified below:
 - (a) Except as provided in 40 CFR 60.752(b)(2)(i)(B),

To comply with 40 CFR 60.752(b)(2)(ii)(A) for an active gas collection system, the Permittee 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 at each individual well on a monthly basis as provided in 40 CFR 60.755(a)(3);
 - (2) Monitor nitrogen or oxygen concentration in the landfill gas at each individual well on a monthly basis as provided in 40 CFR 60.755(a)(5); and
 - (3) Monitor temperature of the landfill gas at each individual well 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). If the closed landfill has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods then the Permittee may skip to annual monitoring. Any

methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency to quarterly monitoring.

These monitoring conditions are necessary because 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 AAAAA (National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills).

2. The flare has applicable compliance monitoring conditions as specified below:

To comply with 40 CFR 60.752(b)(2)(iii) using an open flare, the Permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

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

These monitoring conditions are necessary because the flare at the municipal solid waste landfill 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 AAAAA (National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills).

Conclusion

The operation of this stationary municipal solid waste landfill shall be subject to the conditions of the Part 70 permit renewal T075-23184-00029.

Jay County Landfill, Inc.

5825 W. 400 South, Portland, Indiana 47371
T075-23184-00029

Date: February 8, 2007

Comments:

The site-specific NMOC concentration of 557.80 ppmv as hexane was determined through site-specific testing Tier 2 testing conducted in November 1999.

LANDFILL CHARACTERISTICS

Landfill Open Year	1970	
Landfill Closure Year (with 80-year limit)	2031	
Actual Closure Year (without limit)	2031	
Have Model Calculate Closure Year?	No	
Waste Design Capacity	11902272	<i>megagrams</i>

MODEL PARAMETERS

Methane Generation Rate, k	0.05	<i>year⁻¹</i>
Potential Methane Generation Capacity, L ₀	170	<i>m³/Mg</i>
NMOC Concentration	557.8	<i>ppmv as hexane</i>
Methane Content	50	<i>% by volume</i>

Year	WASTE ACCEPTANCE RATES		Waste-In-Place	
	(Mg/year)	(short tons/year)	(Mg)	(short tons)
1970	18,916	20,808	0	0
1971	18,916	20,808	18,916	20,808
1972	18,916	20,808	37,832	41,615
1973	18,916	20,808	56,748	62,423
1974	18,916	20,808	75,664	83,230
1975	18,916	20,808	94,580	104,038
1976	18,916	20,808	113,496	124,846
1977	18,916	20,808	132,412	145,653
1978	18,916	20,808	151,328	166,461
1979	18,916	20,808	170,244	187,268
1980	18,916	20,808	189,160	208,076
1981	18,916	20,808	208,076	228,884
1982	18,916	20,808	226,992	249,691
1983	18,916	20,808	245,908	270,499
1984	18,916	20,808	264,824	291,306
1985	18,916	20,808	283,740	312,114
1986	18,916	20,808	302,656	332,922
1987	18,916	20,808	321,572	353,729
1988	18,916	20,808	340,488	374,537
1989	15,464	17,010	359,404	395,344
1990	24,051	26,456	374,868	412,355
1991	20,955	23,051	398,919	438,811
1992	22,045	24,250	419,874	461,861
1993	84,049	92,454	441,919	486,111
1994	245,111	269,622	525,968	578,565
1995	229,160	252,076	771,079	848,187
1996	233,517	256,869	1,000,239	1,100,263
1997	157,721	173,493	1,233,756	1,357,132
1998	197,040	216,744	1,391,477	1,530,625
1999	311,475	342,623	1,588,517	1,747,369
2000	120,720	132,792	1,899,992	2,089,991
2001	156,305	171,936	2,020,712	2,222,783
2002	177,273	195,000	2,177,017	2,394,719
2003	166,336	182,970	2,354,290	2,589,719
2004	175,873	193,460	2,520,626	2,772,689
2005	185,965	204,562	2,696,499	2,966,149
2006	181,818	200,000	2,882,464	3,170,710
2007	363,636	400,000	3,064,282	3,370,710
2008	363,636	400,000	3,427,918	3,770,710
2009	363,636	400,000	3,791,554	4,170,709

WASTE ACCEPTANCE RATES (Continued)				
Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	(short tons/year)	(Mg)	(short tons)
2010	363,636	400,000	4,155,190	4,570,709
2011	363,636	400,000	4,518,826	4,970,709
2012	363,636	400,000	4,882,462	5,370,708
2013	363,636	400,000	5,246,098	5,770,708
2014	363,636	400,000	5,609,734	6,170,707
2015	363,636	400,000	5,973,370	6,570,707
2016	363,636	400,000	6,337,006	6,970,707
2017	363,636	400,000	6,700,642	7,370,706
2018	363,636	400,000	7,064,278	7,770,706
2019	363,636	400,000	7,427,914	8,170,705
2020	363,636	400,000	7,791,550	8,570,705
2021	363,636	400,000	8,155,186	8,970,705
2022	363,636	400,000	8,518,822	9,370,704
2023	363,636	400,000	8,882,458	9,770,704
2024	363,636	400,000	9,246,094	10,170,703
2025	363,636	400,000	9,609,730	10,570,703
2026	363,636	400,000	9,973,366	10,970,703
2027	363,636	400,000	10,337,002	11,370,702
2028	363,636	400,000	10,700,638	11,770,702
2029	363,636	400,000	11,064,274	12,170,701
2030	363,636	400,000	11,427,910	12,570,701
2031	110,726	121,799	11,791,546	12,970,701
2032	0	0	11,902,272	13,092,500
2033	0	0	11,902,272	13,092,500
2034	0	0	11,902,272	13,092,500
2035	0	0	11,902,272	13,092,500

LandGEM Results

Year	Methane			Carbon Dioxide		
	(Mg/year)	(m ³ /year)	(av ft ³ /min)	(Mg/year)	(m ³ /year)	(av ft ³ /min)
1970	0	0	0	0	0	0
1971	46	69,666	5	128	69,666	5
1972	92	137,496	9	252	137,496	9
1973	136	203,540	14	373	203,540	14
1974	179	267,843	18	490	267,843	18
1975	220	330,452	22	605	330,452	22
1976	261	391,412	26	716	391,412	26
1977	301	450,766	30	825	450,766	30
1978	339	508,555	34	931	508,555	34
1979	377	564,823	38	1,034	564,823	38
1980	413	619,607	42	1,134	619,607	42
1981	449	672,949	45	1,232	672,949	45
1982	484	724,885	49	1,327	724,885	49
1983	517	775,452	52	1,419	775,452	52
1984	550	824,688	55	1,510	824,688	55
1985	582	872,626	59	1,597	872,626	59
1986	613	919,301	62	1,683	919,301	62
1987	644	964,746	65	1,766	964,746	65
1988	673	1,008,995	68	1,847	1,008,995	68
1989	702	1,052,077	71	1,926	1,052,077	71
1990	721	1,081,311	73	1,979	1,081,311	73
1991	761	1,141,399	77	2,089	1,141,399	77
1992	793	1,188,503	80	2,176	1,188,503	80
1993	826	1,238,379	83	2,267	1,238,379	83
1994	1,011	1,515,297	102	2,774	1,515,297	102
1995	1,587	2,378,097	160	4,353	2,378,097	160
1996	2,108	3,159,418	212	5,783	3,159,418	212
1997	2,626	3,936,200	264	7,205	3,936,200	264
1998	2,944	4,413,367	297	8,079	4,413,367	297
1999	3,351	5,022,770	337	9,194	5,022,770	337
2000	4,028	6,037,572	406	11,052	6,037,572	406
2001	4,218	6,323,103	425	11,574	6,323,103	425
2002	4,491	6,732,168	452	12,323	6,732,168	452
2003	4,809	7,207,678	484	13,194	7,207,678	484
2004	5,091	7,630,381	513	13,967	7,630,381	513
2005	5,389	8,077,070	543	14,785	8,077,070	543
2006	5,704	8,549,159	574	15,649	8,549,159	574
2007	6,000	8,993,536	604	16,463	8,993,536	604
2008	6,735	10,095,826	678	18,480	10,095,826	678
2009	7,451	11,169,074	750	20,445	11,169,074	750
2010	8,149	12,214,045	821	22,358	12,214,045	821
2011	8,827	13,231,485	889	24,220	13,231,485	889
2012	9,488	14,222,118	956	26,034	14,222,118	956
2013	10,132	15,186,652	1,020	27,799	15,186,652	1,020
2014	10,758	16,125,773	1,083	29,518	16,125,773	1,083
2015	11,368	17,040,152	1,145	31,192	17,040,152	1,145
2016	11,962	17,930,439	1,205	32,822	17,930,439	1,205
2017	12,541	18,797,271	1,263	34,408	18,797,271	1,263
2018	13,104	19,641,264	1,320	35,953	19,641,264	1,320
2019	13,652	20,463,021	1,375	37,458	20,463,021	1,375

LandGEM Results

Year	Methane			Carbon Dioxide		
	(Mg/year)	(m ³ /year)	(av ft ³ /min)	(Mg/year)	(m ³ /year)	(av ft ³ /min)
2020	14,186	21,263,128	1,429	38,922	21,263,128	1,429
2021	14,705	22,042,154	1,481	40,348	22,042,154	1,481
2022	15,211	22,800,655	1,532	41,737	22,800,655	1,532
2023	15,704	23,539,173	1,582	43,088	23,539,173	1,582
2024	16,184	24,258,233	1,630	44,405	24,258,233	1,630
2025	16,651	24,958,348	1,677	45,686	24,958,348	1,677
2026	17,106	25,640,017	1,723	46,934	25,640,017	1,723
2027	17,548	26,303,727	1,767	48,149	26,303,727	1,767
2028	17,980	26,949,950	1,811	49,332	26,949,950	1,811
2029	18,399	27,579,147	1,853	50,484	27,579,147	1,853
2030	18,808	28,191,767	1,894	51,605	28,191,767	1,894
2031	19,206	28,788,246	1,934	52,697	28,788,246	1,934
2032	18,911	28,345,669	1,905	51,887	28,345,669	1,905
2033	18,413	27,598,854	1,854	50,520	27,598,854	1,854
2034	17,927	26,871,715	1,806	49,189	26,871,715	1,806
2035	17,455	26,163,734	1,758	47,893	26,163,734	1,758

LandGEM Results

Year	VOC (NMOC)			Carbon Monoxide		
	(Mg/year)	(m ³ /year)	(av ft ³ /min)	(Mg/year)	(m ³ /year)	(av ft ³ /min)
1970	0.000	0.00	0.000	0.000	0.00	0.000
1971	0.279	77.72	0.005	0.023	19.51	0.001
1972	0.550	153	0.010	0.045	38.50	0.003
1973	0.814	227	0.015	0.066	56.99	0.004
1974	1.071	299	0.020	0.087	75.00	0.005
1975	1.321	369	0.025	0.108	92.53	0.006
1976	1.565	437	0.029	0.128	110	0.007
1977	1.803	503	0.034	0.147	126	0.008
1978	2.034	567	0.038	0.166	142	0.010
1979	2.259	630	0.042	0.184	158	0.011
1980	2.478	691	0.046	0.202	173	0.012
1981	2.691	751	0.050	0.220	188	0.013
1982	2.899	809	0.054	0.236	203	0.014
1983	3.101	865	0.058	0.253	217	0.015
1984	3.298	920	0.062	0.269	231	0.016
1985	3.489	974	0.065	0.285	244	0.016
1986	3.676	1,026	0.069	0.300	257	0.017
1987	3.858	1,076	0.072	0.315	270	0.018
1988	4.035	1,126	0.076	0.329	283	0.019
1989	4.207	1,174	0.079	0.343	295	0.020
1990	4.324	1,206	0.081	0.353	303	0.020
1991	4.564	1,273	0.086	0.372	320	0.021
1992	4.753	1,326	0.089	0.388	333	0.022
1993	4.952	1,382	0.093	0.404	347	0.023
1994	6.059	1,690	0.114	0.494	424	0.029
1995	9.510	2,653	0.178	0.776	666	0.045
1996	12.634	3,525	0.237	1.031	885	0.059
1997	15.740	4,391	0.295	1.284	1,102	0.074
1998	17.648	4,924	0.331	1.440	1,236	0.083
1999	20.085	5,603	0.376	1.638	1,406	0.094
2000	24.143	6,736	0.453	1.969	1,691	0.114
2001	25.285	7,054	0.474	2.063	1,770	0.119
2002	26.921	7,510	0.505	2.196	1,885	0.127
2003	28.822	8,041	0.540	2.351	2,018	0.136
2004	30.513	8,512	0.572	2.489	2,137	0.144
2005	32.299	9,011	0.605	2.635	2,262	0.152
2006	34.187	9,537	0.641	2.789	2,394	0.161
2007	35.964	10,033	0.674	2.934	2,518	0.169
2008	40.372	11,263	0.757	3.293	2,827	0.190
2009	44.663	12,460	0.837	3.643	3,127	0.210
2010	48.842	13,626	0.916	3.984	3,420	0.230
2011	52.910	14,761	0.992	4.316	3,705	0.249
2012	56.872	15,866	1.066	4.639	3,982	0.268
2013	60.729	16,942	1.138	4.954	4,252	0.286
2014	64.484	17,990	1.209	5.260	4,515	0.303
2015	68.141	19,010	1.277	5.559	4,771	0.321
2016	71.701	20,003	1.344	5.849	5,021	0.337
2017	75.167	20,970	1.409	6.132	5,263	0.354
2018	78.542	21,912	1.472	6.407	5,500	0.370
2019	81.828	22,829	1.534	6.675	5,730	0.385

LandGEM Results

Year	VOC (NMOC)			Carbon Monoxide		
	(Mg/year)	(m ³ /year)	(av ft ³ /min)	(Mg/year)	(m ³ /year)	(av ft ³ /min)
2020	85.03	23,721	1.594	6.936	5,954	0.400
2021	88.14	24,590	1.652	7.190	6,172	0.415
2022	91.18	25,436	1.709	7.438	6,384	0.429
2023	94.13	26,260	1.764	7.679	6,591	0.443
2024	97.00	27,062	1.818	7.913	6,792	0.456
2025	99.80	27,844	1.871	8.142	6,988	0.470
2026	102.53	28,604	1.922	8.364	7,179	0.482
2027	105.18	29,344	1.972	8.580	7,365	0.495
2028	107.77	30,065	2.020	8.791	7,546	0.507
2029	110.28	30,767	2.067	8.996	7,722	0.519
2030	112.73	31,451	2.113	9.196	7,894	0.530
2031	115.12	32,116	2.158	9.391	8,061	0.542
2032	113.35	31,622	2.125	9.246	7,937	0.533
2033	110.36	30,789	2.069	9.003	7,728	0.519
2034	107.46	29,978	2.014	8.766	7,524	0.506
2035	104.62	29,188	1.961	8.535	7,326	0.492

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

Company Name: Jay County Landfill, Inc.
Address: 5825 W. 400 South, Portland, Indiana 47371
Title V: 075-23184-00029
Reviewer: ERG/ST
Date: February 8, 2007

Inputs from Landfill Gas Model (Emissions Before Controls)			
Product	m ³ /yr	mg/yr	tons/year
Methane	2.88E+07	1.92E+04	21,127
CO ₂	2.88E+07	5.27E+04	57,967
VOC	3.21E+04	1.15E+02	127
CO	8.06E+03	9.39E+00	10
Fugitive Emissions from Landfill after Controls			tons/yr
VOC			31.7
CO			2.6

- 1. Landfill Gas (LFG) Production Rate: **5.76E+07** m³/yr (= CH₄ + CO₂ production rate from the EPA Landfill Air Emission Model - Appendix A)
- 2. Collection Efficiency: **75%** (AP 42, 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	0.171	0.043	0.003	0.045
79-34-5	1,1,2,2-Tetrachloroethane	1.11	167.85	0.499	0.125	0.007	0.132
75-34-3	1,1-Dichloroethane (ethylidene dichloride)	2.35	98.97	0.623	0.156	0.009	0.165
75-35-4	1,1-Dichloroethene (vinylidene chloride)	0.20	96.94	0.052	0.013	0.001	0.014
107-06-2	1,2-Dichloroethane (ethylene dichloride)	0.41	98.96	0.109	0.027	0.002	0.029
78-87-5	1,2-Dichloropropane (propylene dichloride)	0.18	112.99	0.054	0.014	0.001	0.014
107-13-1	Acrylonitrile	6.33	53.06	0.899	0.225	0.013	0.238
75-15-0	Carbon disulfide	0.58	76.13	0.118	0.030	0.002	0.031
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	0.079	0.020	0.000	0.021
108-90-7	Chlorobenzene	0.25	112.56	0.075	0.019	0.001	0.020
75-00-3	Chloroethane (ethyl chloride)	1.25	64.52	0.216	0.054	0.003	0.057
67-66-3	Chloroform	0.03	119.39	0.010	0.002	0.000	0.003
75-09-2	Dichloromethane (methylene chloride)	14.30	84.94	3.252	0.813	0.049	0.862
100-41-4	Ethylbenzene	4.61	106.16	1.310	0.328	0.020	0.347
110-54-3	Hexane	6.57	86.18	1.516	0.379	0.023	0.402
108-10-1	Methyl isobutyl ketone	1.87	100.16	0.501	0.125	0.008	0.133
127-18-4	Perchloroethylene (tetrachloroethene)	3.73	165.83	1.656	0.414	0.025	0.439
79-01-6	Trichloroethylene (trichloroethene)	2.82	131.4	0.992	0.248	0.015	0.263
75-01-4	Vinyl chloride	7.34	62.5	1.228	0.307	0.018	0.325
71-43-2	Benzene	1.91	78.11	0.399	0.100	0.006	0.106
74-87-3	Methyl chloride (Chloromethane)	1.21	50.49	0.164	0.041	0.002	0.043
108-88-3	Toluene	39.30	92.13	9.693	2.423	0.145	2.569
1330-20-7	Xylene (isomers and mixture)	12.10	106.16	3.439	0.860	0.052	0.911
	Mercury Compounds	0.000292	200.61	0.000	0.000	0.000	0.000
7647-01-0	**Hydrogen Chloride	42.0	36	-	-	3.036	3.036
Total Emissions				27.1	6.76	3.44	10.21

*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 (m³/yr) x 35.31 ft³/m³ 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 (tons/yr) = Uncontrolled HAPs Emissions (tons/yr) x (1 - Collection Efficiency)
 Captured HAPs after control device (tons/yr) = Uncontrolled HAPs Emissions (tons/yr) x Collection Efficiency x (1 - Control Efficiency)
 HCl Emissions (tons/yr) = LFG Production Rate (m³/yr) x 35.31 ft³/m³ 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 Flare and Generators**

**Company Name: Jay County Landfill, Inc.
Address: 5825 W. 400 South, Portland, Indiana 47371
Title V: 075-23184-00029
Reviewer: ERG/ST
Date: February 8, 2007**

Fuel Input MMBtu/hr	NMOC ppmv	Flow Rate scfm	Facility Description:	Emissions Unit ID #
45	558	1,500	Open Flare with 1,500 scfm capacity	FL1
36	558	1,300	Four (4) 1,148 Hp landfill gas fueled engine/generator	ES1 - ES4

Pollutant Emission Factors						
Emission Unit	PM ^a	PM10 ^a	SO ₂ ^b	NOx ^d	CO ^d	NMOC ^c
Flare	17	17	49.6	60	200	558
IC Engines	48	48	49.6	250	470	558
	(lb/10 ⁶ dscf methane)	(lb/10 ⁶ dscf methane)	(ppmv)	(lb/10 ⁶ dscf methane)	(lb/10 ⁶ dscf methane)	(ppmv)

Potential To Emit (tons/year)						
Emission Unit	PM	PM10	SO ₂	NOx	CO	NMOC
FL1	3.35	3.35	3.30	11.8	39.4	1.00
ES1 - ES4	8.20	8.20	2.86	42.7	80.3	0.86
PTE Total	11.6	11.6	6.15	54.5	120	1.86

^a 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.

^b 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).

^c 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).

^d The emission factors for NOx and CO for the flare are guaranteed emission factors provided by the manufacturer.

Methodology

$$\text{PM / PM10 / NOx / CO Emissions (tons/yr)} = \text{Flow Rate (scfm landfill gas)} / 10^6 \times \text{Emission Factor (lb/10}^6 \text{ dscf)} \times 50\% \text{ (Methane \% in landfill gas)} \\ \times 60 \text{ (min/hr)} \times 8760 \text{ (hr/yr)} \times .0005 \text{ (ton/lb)}$$

$$\text{SO}_2 \text{ Emissions (tons/yr)} = \text{Flow Rate (scfm)} \times \text{Emission Factor (ppmv)} / 1,000,000 \times 1 \text{ atm} / \text{Gas Constant (0.7302 atm-cf/lb mole-R)} / \text{Temp (60F+ 460)} \\ \times \text{Mole weight of SO}_2 \text{ (64 lbs/lbs mole)} \times 60 \text{ min/hr} \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lbs}$$

$$\text{NMOC Emissions (tons/yr)} = \text{Flow Rate (scfm)} \times \text{Emission Factor (ppmv)} / 1,000,000 \times 1 \text{ atm} / \text{Gas Constant (0.7302 atm-cf/lb mole-R)} / \text{Temp (60F+ 460)} \\ \times \text{Mole weight of Hexane (86 lbs/lbs mole)} \times 60 \text{ min/hr} \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lbs} \times (1-98\% \text{ control efficiency})$$

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

**Company Name: Jay County Landfill, Inc.
Address: 5825 W. 400 South, Portland, Indiana 47371
Title V: 075-23184-00029
Reviewer: ERG/ST
Date: February 8, 2007**

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 = **0.40 miles**

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

Vehicle Type	*Trucks per day	Average Vehicle Weight	Total Trip Number	Traffic Component	Vehicle Mile Traveled (VMT)	PTE of PM	PTE of PM10
		(tons)	(trips/yr)	(%)	(miles/yr)	(tons/yr)	(tons/yr)
Transfer Trailer	75	25.8	19,500	100.00%	15,600	43.5	11.7
Total	75			100%	15,600	43.5	11.7

* 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 uses wet suppression to control fugitive dust emissions. The control efficiency from wet suppression is assumed to be 90%.

PTE of PM after Control =	44 tons/yr x (1-90%) =	4.4 tons/yr
PTE of PM10 after Control =	12 tons/yr x (1-90%) =	1.2 tons/yr

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

**Company Name: Jay County Landfill, Inc.
Address: 5825 W. 400 South, Portland, Indiana 47371
Title V: 075-23184-00029
Reviewer: ERG/ST
Date: February 8, 2007**

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/m²) = 2.5 (g/m²) *
 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 = 0.09 miles

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

Vehicle Type	*Trucks per day	Average Vehicle Weight	Total Trip Number	Traffic Component	Vehicle Mile Traveled (VMT)	PTE of PM	PTE of PM10
		(tons)	(trips/yr)	(%)	(miles/yr)	(tons/yr)	(tons/yr)
Transfer Trailer	75	25.8	19,500	94.9%	3,693	4.1	0.8
Private Vehicles	4	1.5	1,040	5.06%	197	0.00	0.00
Total	79			100%	3693	4.1	0.8

* 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 uses wet suppression to control fugitive dust emissions. The control efficiency from wet suppression is assumed to be 90%.

PTE of PM after Control = 4.05 tons/yr x (1-90%) = 0.41 tons/yr
 PTE of PM10 after Control = 0.79 tons/yr x (1-90%) = 0.08 tons/yr

Appendix A: Emission Calculations
Combustion Emissions from the 0.85 MMBtu/hr Tipper Engine and Rock Crusher

Company Name: Jay County Landfill, Inc.
Address: 5825 W. 400 South, Portland, Indiana 47371
Title V: 075-23184-00029
Reviewer: ERG/ST
Date: February 8, 2007

Emission Unit	Maximum Capacity	Pollutant	Emission Factor (lbs/MMBTU)	PTE					
				PM (Tons/Year)	PM10 (Tons/Year)	SOx (Tons/Year)	NOx (Tons/Year)	VOC (Tons/Year)	CO (Tons/Year)
Tipper Engine SCC 2-02-001-02	115 Horsepower	PM	0.31	0.40					
		PM10	0.31		0.40				
		SOx	0.29			0.37			
	0.29 (MMBTu/hr)	NOx	5.97				7.67		
		VOC	0.36					0.46	
		CO	0.95						1.22

Emission Unit	Maximum Capacity (tons/hr)	Pollutant	Emission Factor (lbs/ton)	PTE			Allowable Emissions
				PM (lbs/hr)	PM (Tons/Year)	PM10 (Tons/Year)	326 IAC 6-3-2 (lbs/hr)
Rock Crusher SCC 3-050030-03	150	PM	0.0054	0.81	3.55		55.4
		PM10	0.0024	0.36	1.58		

Emission factors for PM, PM10, SO₂, VOC and CO are from AP-42, Chapter 3.3 - Gasoline and Diesel Industrial Engines, Table 3.3-1. (10/96)
 Emission factor for NOx is from EPA, Control of Emissions of Air Pollution From Nonroad Diesel Engines [Federal Register: September 24, 1997 (Volume 62, Number 185)] (6.9 grams/brake-horsepower-hr) for nonroad diesel engines built after 1997.
 Emission factors for PM and PM10 for rock crushing are from AP 42, Chapter 11.19.2, Table 11.19.2-2 (8/04)

Methodology

PTE (tons/year) = Maximum Capacity (MMBTu/hour) x Emission Factor (lbs/MMBTu) x 1 ton/2000 lbs x 8760 hours/year
 PTE (tons/year) = Maximum Capacity (tons/hour) x Emission Factor (lbs/MMBTu) x 1 ton/2000 lbs x 8760 hours/year
 326 IAC 6-3-2 Allowable Emissions (lbs/hr) = 55 x (150 (tons/hr))^{0.11} - 40