INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
*We make Indiana a cleaner, healthier place to live.*

*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: April 2, 2007

RE: Prairie View Recycling/141-23430-00051

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 according to IC 13-15-6-3, 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 and IC 13-15-6-1 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, **within eighteen (18) calendar days of the mailing of this notice**. 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.

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.

Enclosures
FNPER.dot 03/23/06

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
*We make Indiana a cleaner, healthier place to live.*

*Mitchell E. Daniels, Jr.*
Governor

*Thomas W. Easterly*
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

Mr. C. Bernard Rieder
Prairie View Recycling and Disposal Facility
15505 Shively Road
Wyatt, IN 46595

April 2, 2007

Re: 141-23430-00051
Significant Source Modification to:
Part 70 permit No.: T141-7477-00051

Dear Mr. Rieder:

Prairie View Recycling and Disposal Facility was issued Part 70 operating permit T141-7477-00051 on July 13, 1999 for a stationary municipal solid waste landfill (MSLWLF). An application to modify the source was received on July 27, 2006. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(a) Four (4) Caterpillar 3516 landfill gas fueled reciprocating internal combustion engine/generator sets, identified as EG5, EG6, EG7, and EG8, to be installed in 2007. The engines are rated at 1148 horsepower each, and each exhausts through one (1) stack, identified as ES5, ES6, ES7, and ES8, respectively.

The following insignificant activities are also being added:

(a) One (1) 20 gallon small parts washing station, using Safety Kleen or other similar cleaning solvent;
(b) Vessels storing motor oil and transmission fluid ranging in size from 200 gallons to 500 gallons, and 55 gallon drums for antifreeze storage;
(c) One (1) waste oil storage tank ranging in size from 500 gallons to 1,000 gallons;
(d) Crankcase breather vents for each engine, emitting a maximum of 0.81 pounds of PM per hour;
(e) A process gas chromatograph;
(f) Maintenance welding, cutting, and grinding equipment;
(g) Application of oils, greases, or other lubricants;
(h) Electric powered air compressors.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

This significant source modification authorizes construction of the new emission units. Operating conditions shall be incorporated into the Part 70 operating permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call Trish Earls at (973) 575-2555, ext. 3219 or dial (800) 451-6027, and ask for extension 3-6878.

Sincerely,

Original Signed By:
Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

Attachments
Technical Support Document
Revised Part 70 Operating Permit
TE/EVP
cc: File – St. Joseph County
St. Joseph County Health Department
IDEM Northern Regional Office
Air Compliance Section Inspector - Rick Reynolds
Compliance Data Section
Administrative and Development
Technical Support and Modeling

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
*We make Indiana a cleaner, healthier place to live.*

*Mitchell E. Daniels, Jr.*
Governor

*Thomas W. Easterly*
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

# PART 70 OPERATING PERMIT
# OFFICE OF AIR QUALITY

## Prairie View Recycling & Disposal Facility
## 15505 Shively Road
## Wyatt, IN 46595

(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 the 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 and 326 IAC 2-1-3.2 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.

| | |
|---|---|
| First Significant Source Modification: 141-23430-00051 | Pages Affected: Entire permit |
| Issued by: Original Signed By:<br>Nisha Sizemore, Chief<br>Permits Branch<br>Office of Air Quality | Issuance Date: April 2, 2007<br><br>Expiration Date: April 2, 2012 |

## TABLE OF CONTENTS

**A SOURCE SUMMARY 4**
A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]
A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

**B GENERAL CONDITIONS 6**
B.1 Permit No Defense [326 IAC 2-1-10] [IC 13]
B.2 Definitions [326 IAC 2-7-1]
B.3 Permit Term [326 IAC 2-7-5(2)]
B.4 Enforceability [326 IAC 2-7-7(a)]
B.5 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]
B.6 Severability [326 IAC 2-7-5(5)]
B.7 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]
B.8 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)]
B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)]
B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]
B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3)and (13)][326 IAC 2-7-6(1)and(6)]
B.12 Emergency Provisions [326 IAC 2-7-16]
B.13 Permit Shield [326 IAC 2-7-15]
B.14 Multiple Exceedances [326 IAC 2-7-5(1)(E)]
B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]
B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination
B.17 Permit Renewal [326 IAC 2-7-4]
B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]
B.19 Permit Revision Under Economic Incentives and Other Programs
B.20 Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-7-20(b)]
B.21 Operational Flexibility [326 IAC 2-7-20]
B.22 Construction Permit Requirement [326 IAC 2]
B.23 Inspection and Entry [326 IAC 2-7-6(2)]
B.24 Transfer of Ownership or Operation [326 IAC 2-1-6] [326 IAC 2-7-11]
B.25 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]
B.26 Credible Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

**C SOURCE OPERATION CONDITIONS 17**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
C.1 Particulate Matter Emission Limitations For Processes with Process Weight Rates
C.2 Opacity [326 IAC 5-1]
C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]
C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
C.5 Fugitive Dust Emissions [326 IAC 6-4]
C.6 Operation of Equipment [326 IAC 2-7-6(6)]
C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

**Testing Requirements [326 IAC 2-7-6(1)]**
C.8 Performance Testing [326 IAC 3-6]

**Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**
C.9 Compliance Schedule [326 IAC 2-7-6(3)]
C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]
C.11 Maintenance of Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]
C.12 Monitoring Methods [326 IAC 3]

**Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]**
C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

C.15 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] [326 IAC 1-6]
C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**
C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]
C.18 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]
C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)]
C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

**Stratospheric Ozone Protection**
C.21 Compliance with 40 CFR 82 and 326 IAC 22-1

**D.1 FACILITY OPERATION CONDITIONS -** stationary municipal solid waste landfill, flare, and eight (8) engine/generator sets. ..... **26**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
D.1.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A] and to HAPs [326 IAC 14-1-1][40 CFR Part 61, Subpart A]
D.1.2 Non-applicability Determination
D.1.3 Municipal Solid Waste Landfill NSPS [326 IAC 12] [40CFR 60.752, Subpart WWW]
D.1.4 Operational Standards for Collection and Control Systems [40CFR 60.753]
D.1.5 NESHAP for Asbestos Active Waste Disposal Sites [40 CFR 61.154]
D.1.6 NOx Emissions [326 IAC 2-3]
D.1.7 CO Emissions [326 IAC 2-2]

**Compliance Determination Requirements**
D.1.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [40CFR 60.754(b)]
D.1.9 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**
D.1.10 Monitoring [40CFR 60.756]
D.1.11 Compliance Provisions [40CFR 60.755]

**Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**
D.1.12 Calculation of Non-methane Organic Compound (NMOC) Rate
D.1.13 Reporting Requirements [40 CFR 60.757]
D.1.14 Record Keeping Requirements [326 IAC 12] [40CFR 60.758]
D.1.15 Recordkeeping for NESHAP for Asbestos Active Waste Disposal Sites [40 CFR 61.154]

**D.2 FACILITY OPERATION CONDITIONS** – Parts Washer **42**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]
D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

**Certification** **44**
**Emergency/Deviation Occurrence Report** **45**
**Semi-Annual Compliance Monitoring Report** **47**

## SECTION A SOURCE SUMMARY

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

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

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

| | |
|---|---|
| Responsible Official: | James Davis |
| Source Address: | 15505 Shively Road, Wyatt, IN 46595 |
| Mailing Address: | P. O. Box 128, 15505 Shively Road, Wyatt, IN 46595 |
| SIC Code: | 4953 |
| County Location: | St. Joseph |
| County Status: | Basic Non-attainment for Ozone under 8-hour standard,<br>Attainment for all other criteria pollutants |
| Source Status: | Part 70 Permit Program<br>Major Source, under PSD and Emission Offset Rules<br>Minor Source, section 112 of Clean Air Act |

### A.2 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:

(a) One (1) solid waste disposal facility having the meaning described in 40 CFR 60.751 pertaining to all contiguous land and structures, other appurtenances (including haul roads), and improvements on the land used for disposal of solid waste that opened in 1981 and has a design capacity of 15.30 Million Megagrams.

(b) One (1) open flare with a capacity of 2,130 scfm of landfill gas, constructed in 2004. There is no physical means to bypass the landfill gas flow before it reaches the open flare.

(c) Four (4) Caterpillar 3516 landfill gas fueled engine/generator sets, identified as EG1, EG2, EG3, and EG4, and a single fuel gas compressor. The generators are rated at 800 kilowatts each, and were installed in 1994.

(d) Gas treatment system, installed in 1994, consisting of dewatering, compressions, cooling, filtering and heat exchange operations. The gas treatment system is enclosed and has no atmospheric vents.

(e) Four (4) Caterpillar 3516 landfill gas fueled reciprocating internal combustion engine/generator sets, identified as EG5, EG6, EG7, and EG8, to be installed in 2007. The engines are rated at 1148 horsepower each, and each exhausts through one (1) stack, identified as ES5, ES6, ES7, and ES8, respectively.

### A.3 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, as defined in 326 IAC 2-7-1(21):

(a) Three (3) passive vent flares, each with a capacity of 50 scfm of landfill gas, constructed in 2005.

(b) One (1) 20 gallon small parts washing station, using Safety Kleen or other similar cleaning solvent; [326 IAC 8-3-2][326 IAC 8-3-5]

## A.4 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 Permit No Defense [326 IAC 2-1-10] [IC 13]

(a) Indiana statutes from IC 13 and rules from 326 IAC, quoted 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.

(b) This prohibition shall not apply to alleged violations of applicable requirements for which the Commissioner has granted a permit shield in accordance with 326 IAC 2-1-3.2 or 326 IAC 2-7-15, as set out in this permit in the Section B condition entitled “Permit Shield.”

### B.2 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, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

### B.3 Permit Term [326 IAC 2-7-5(2)]

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

### B.4 Enforceability [326 IAC 2-7-7(a)]

(a) All terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM .

(b) Unless otherwise stated, terms and conditions of this permit, including any provisions to limit the source’s potential to emit, are enforceable by the United States Environmental Protection Agency (U.S. EPA) and citizens under the Clean Air Act.

### B.5 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.6 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.7 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.8 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

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

(b) 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.

(c) Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit. If the Permittee wishes to assert a claim of confidentiality over any of the furnished records, the Permittee must furnish such records to IDEM, OAQ, along with a claim of confidentiality under 326 IAC 17. If requested by IDEM, OAQ, or the U.S. EPA, to furnish copies of requested records directly to U. S. EPA, and if the Permittee is making a claim of confidentiality regarding the furnished records, then the Permittee must furnish such confidential records directly to the U.S. EPA along with a claim of confidentiality under 40 CFR 2, Subpart B.

B.9 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.10 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. The certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, 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 identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was based on continuous or intermittent data;

(4) The methods used for determining compliance of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3);

(5) Any insignificant activity that has been added without a permit revision; and

(6) 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.11 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) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date 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

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMPs shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ.

B.12 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, except as provided in 326 IAC 2-7-16.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or 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 notice, either in writing or facsimile, of the emergency 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) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) 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 compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) 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.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is 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.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.13 Permit Shield [326 IAC 2-7-15]

(a) This condition provides a permit shield as addressed in 326 IAC 2-7-15.

(b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. Compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that:

(1) The applicable requirements are included and specifically identified in this permit; or

(2) The permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable.

(c) 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, including any term or condition from a previously issued construction or operation permit, 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.

(d) 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.

(e) 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.

(f) 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).

(g) 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)]

(h) 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.14 Multiple Exceedances [326 IAC 2-7-5(1)(E)]

Any exceedance of a permit limitation or condition contained in this permit, 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, which occurs contemporaneously with an exceedance of an associated surrogate or operating parameter established to detect or assure compliance with that limit or condition, both arising out of the same act or occurrence, shall constitute a single potential violation of this permit.

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 Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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.

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

(2) An emergency as defined in 326 IAC 2-7-1(12); or

(3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.

(4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

(c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

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 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)]

(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 2-7-4]

(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).

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) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) 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. [326 IAC 2-5-3]

(2) If IDEM, OAQ, upon receiving a timely and complete 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.

(c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
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.

(d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

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

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule.

(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)(D)(i) 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 Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-7-20(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) and the following additional conditions:

(a) For each such change, the required written notification shall include a brief description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

(b) The permit shield, described in 326 IAC 2-7-15, shall not apply to any change made under 326 IAC 2-7-20(b).

B.21 Operational Flexibility [326 IAC 2-7-20]

(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 approval required by 326 IAC 2-1 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under 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 which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes 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), (c)(1), and (e)(2).

(b) 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 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 increases and decreases in emissions 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 [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.22 Construction Permit Requirement [326 IAC 2]

Except as allowed by Indiana P.L. 130-1996 Section 12, as amended by P.L. 244-1997, modification, construction, or reconstruction shall be approved as required by and in accordance with 326 IAC 2.

B.23 Inspection and Entry [326 IAC 2-7-6(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, 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) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

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

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.
[326 IAC 2-7-6(6)]

(1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAQ, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAQ, nor an authorized representative, may disclose the information unless and until IDEM, OAQ, makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]

(2) The Permittee, IDEM, OAQ, acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

B.24 Transfer of Ownership or Operation [326 IAC 2-1-6] [326 IAC 2-7-11]

Pursuant to 326 IAC 2-1-6 and 326 IAC 2-7-11:

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change. Notification shall include a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the Permittee and the new owner.

(b) The written notification shall be sufficient to transfer the permit to the new owner by an administrative amendment pursuant to 326 IAC 2-7-11. 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).

(c) IDEM, OAQ, shall reserve the right to issue a new permit.

B.25 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.26 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 certification 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 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 Exemptions), 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. 326 IAC 9-1-2 is not federally enforceable.

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 Operation of Equipment [326 IAC 2-7-6(6)]

All air pollution control equipment listed in this permit and used to comply with an applicable requirement for the landfill emissions unit shall be operated at all times when gas is extracted from the emission unit.

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

(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 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 emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are mandatory 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) 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 that the inspector be accredited is federally enforceable.

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

C.8 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 methods 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 Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAQ within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

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

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

C.9 Compliance Schedule [326 IAC 2-7-6(3)]

The Permittee:

(a) Has certified that all facilities at this source are in compliance with all applicable requirements; and

(b) Has submitted a statement that the Permittee will continue to comply with such requirements; and

(c) Will comply with such applicable requirements that become effective during the term of this permit except where such applicable requirements cause the Permittee to violate other terms and conditions included herein.

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

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this permit, 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. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend compliance schedule 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).

C.11 Maintenance of Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than twenty-four (24) hours until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.12 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the applicable requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

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

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

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 not 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.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present in a process in more than the threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall:

(a) Submit:

(1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or

(2) As a part of the compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

(3) A verification to IDEM, OAQ, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.

(b) Provide annual certification to IDEM, OAQ, that the Risk Management Plan is being properly implemented.

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.15 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] [326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this permit;

(3) The Compliance Monitoring Requirements in Section D of this permit;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:

(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and

(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned to operating within "normal" parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.16 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 corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAQ shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(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. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

(a) In accordance with the compliance schedule specified in 326 IAC 2-6-3 (b)(1), starting in 2004 and every three (3) years thereafter, the Permittee shall submit by July 1an 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 compliance with 326 IAC 2-6;

(2) Indicate estimated actual emissions of regulated pollutants as defined in 326 IAC 2-7-1(32) ("regulated pollutant, which is used only for purposes of section 19 of this rule") from the source, for purposes of fee assessment.

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 not require certification by "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The emissions 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.18 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

(a) Records of all required monitoring data and support information 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 kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, representative. 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 written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

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

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

(a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Semi-annual Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported.

(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, any report shall be submitted within thirty (30) days of the end of the reporting period.

(e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports.

(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**Stratospheric Ozone Protection**

C.21 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) solid waste disposal facility having the meaning described in 40 CFR 60.751 pertaining to all contiguous land and structures, other appurtenances (including haul roads), and improvements on the land used for disposal of solid waste that opened in 1981 and has a design capacity of 15.30 Million Megagrams.

(b) One (1) open flare with a capacity of 2,130 scfm of landfill gas, constructed in 2004. There is no physical means to bypass the landfill gas flow before it reaches the open flare.

(c) Four (4) Caterpillar 3516 landfill gas fueled engine/generator sets, identified as EG1, EG2, EG3, and EG4, and a single fuel gas compressor. The generators are rated at 800 kilowatts each, and were installed in 1994.

(d) Gas treatment system, installed in 1994, consisting of dewatering, compressions, cooling, filtering and heat exchange operations. The gas treatment system is enclosed and has no atmospheric vents.

(e) Four (4) Caterpillar 3516 landfill gas fueled reciprocating internal combustion engine/generator sets, identified as EG5, EG6, EG7, and EG8, to be installed in 2007. The engines are rated at 1148 horsepower each, and each exhausts through one (1) stack, identified as ES5, ES6, ES7, and ES8, respectively.

(The information describing the process contained in the 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 [326 IAC 12-1][40 CFR Part 60, Subpart A] and to HAPs [326 IAC 14-1-1][40 CFR Part 61, Subpart A]

(a) The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, 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) Pursuant to a determination letter from EPA region V (dated February 25, 2004), the landfill gas treatment system at the source is considered a treatment system that meets the intent of 40 CFR 60.752 (b)(2)(iii)(c). The eight (8) engine/generator sets (EG1 through EG8), which combust the treated landfill gas, are not subject to the operational requirements in 40 CFR 60.753, the testing requirements in 40 CFR 60.754, the monitoring requirements in 40 CFR 60.756, the reporting requirements in 40 CFR 60.757, and the record keeping requirements in 40 CFR 60.758. The eight (8) engine/generator sets (EG1 through EG8) are also not subject to the requirements of 40 CFR 63, Subpart AAAA and 40 CFR 63, Subpart ZZZZ.

D.1.2 Non-applicability Determination

The municipal solid waste landfill is not subject to the provisions of the following 40 CFR Part 60 Subparts: Cc, D, Da, Db, Dc, E, Ea, Eb, K, Ka, Kb, O, GG, and OOO.

D.1.3 Municipal Solid Waste Landfill NSPS [326 IAC 12] [40CFR 60.752, Subpart WWW]

The municipal solid waste landfill has a design capacity greater than 2.5 million megagrams (Mg) and shall either comply with 40CFR 60.752 (b)(2) or calculate the non methane organic compound (NMOC) emission rate for the landfill using the procedures specified in 40 CFR 60.754.

D.1.4 Operational Standards for Collection and Control Systems [40CFR 60.753]

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 40CFR 60.757(f)(1).

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

(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Office of Air Quality (OAQ).

(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55EC and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The Permittee may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

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

(2) Unless an alternative test method is established as allowed by 40CFR 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 40CFR 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 40CFR 60.753(b), (c), or (d) are not met, corrective action shall be taken as specified in 40CFR 60.755(a)(3) through (5) or 40CFR 60.755(c). If corrective actions are taken as specified in 40CFR 60.755, the monitored exceedance is not a violation of the operational requirements in 40CFR 60.753.

D.1.5 NESHAP for Asbestos Active Waste Disposal Sites [40 CFR 61.154]

In order to comply with 40 CFR 61.154 the Permittee must comply with the following:

(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 (2) or (3) below.

(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 non-asbestos 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.

(d) Also, unless a natural barrier deters access by the general public, warning signs and fencing must be installed or the requirements of paragraph (2)(a) above must be met.

D.1.6 NOx Emissions [326 IAC 2-3]

(a) Total emissions of NOx from the four (4) landfill gas engine/generator sets (EG1, EG2, EG3, and EG4) combined shall not exceed 16.10 pounds per hour.

Compliance with this limit combined with the unrestricted potential to emit of NOx from the open flare, the TIPPER1 engine, and the three (3) passive vent flares will ensure that NOx emissions from the engine/generator sets EG1, EG2, EG3, and EG4, the open flare, the TIPPER1 engine, and the three (3) passive vent flares do not exceed 100 tons per year so that the requirements of 326 IAC 2-3 (Emission Offset) do not apply.

(b) In order to ensure compliance with the limit in (a) above, the Permittee shall install automatic air/fuel controllers on each of the engine/generator sets identified as EG1, EG2, and EG4, prior to start-up of any of the engine/generator sets identified as EG5, EG6, EG7, and EG8.

D.1.7 CO Emissions [326 IAC 2-2]

The Permittee shall not operate more than three (3) passive vent flares at this municipal solid waste landfill.

Compliance with this requirement combined with the unrestricted potential to emit of CO from the four (4) engine/generator sets identified as EG1, EG2, EG3, and EG4, the TIPPER1 engine, and the open flare will ensure that CO emissions from the open flare, the four (4) engine/generator sets identified as EG1, EG2, EG3, and EG4, the TIPPER1 engine, and the three (3) passive vent flares are less than 250 tons per year so that the requirements of 326 IAC 2-2 (PSD) do not apply.

**Compliance Determination Requirements**

D.1.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [40CFR 60.754(b)]

(a) After installation of a collection and control system in compliance with 40CFR 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:

$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC}$
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 40CFR 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 40CFR 60. If using Method 18 of Appendix A of 40CFR 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 40CFR 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 (OAQ).

D.1.9 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

During the period between April 2011 and October 2011, in order to demonstrate compliance with Condition D.1.6, the Permittee shall perform NOx testing on at least one (1) of the four (4) landfill gas engine/generator sets identified as EG1, EG2, EG3, and EG4 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C-Performance Testing.

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

D.1.10 Monitoring [40 CFR 60.756]

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

(a) The Permittee seeking to comply with 40CFR 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 40CFR 60.755(a)(3);

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in 40CFR 60.755(a)(5); and

(3) Monitor temperature of the landfill gas on a monthly basis as provided in 40CFR 60.755(a)(5).

(b) The Permittee seeking to comply with 40 CFR 60.752(b)(2)(iii) using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment:

(1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius of ±0.5 EC, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity greater than 44 megawatts.

(2) A device that records flow to or bypass of the control device. The Permittee shall either; install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every fifteen (15) minutes; or secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

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

(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.

(d) The Permittee seeking to comply with 40CFR 60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Office of Air Quality (OAQ) as provided in 40CFR 60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Office of Air Quality (OAQ) shall review the information and either approve it, or request that additional information be submitted. The Office of Air Quality (OAQ) may specify additional monitoring procedures.

(e) The Permittee seeking to install a collection system that does not meet the specifications in 40CFR 60.759 or seeking to monitor alternative parameters to those required by 40CFR 60.753 through 40CFR 60.756 shall provide information satisfactory to the Office of Air Quality (OAQ) as provided in 40CFR 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.

(f) The Permittee seeking to demonstrate compliance with 40CFR 60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in 40CFR 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.1.11 Compliance Provisions [40 CFR 60.755]

(a) Except as provided in 40 CFR 60.752(b)(2)(i)(B), the specified methods below shall be used to determine whether the gas collection system is in compliance with 40CFR 60.752(b)(2)(i).

(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 $L_o$ kinetic factors should be those published in the most recent Compilation of Air Pollution Emission Factors (AP-42) or other site-specific values demonstrated to be appropriate and approved by the Office of Air Quality (OAQ). If k has been determine as specified in 40CFR 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, $year^{-1}$
$L_o$ = 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 40CFR 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 40CFR 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 40CFR 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 40CFR 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 40CFR 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 40CFR 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 40CFR 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 40CFR 60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in 40CFR 60.759 shall provide information satisfactory to the Office of Air Quality (OAQ) as specified in 40CFR 60.752 (b)(2)(i)(C) demonstrating that off-site migration is being controlled.

(b) For purposes of compliance with 40CFR 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 40CFR 60.752(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of five (5) years or more if active or two (2) years or more if closed or at final grade.

(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in 40CFR 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 40CFR 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 40CFR60, 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 40CFR 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 40CFR 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 with 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 40CFR 60.755(c)(4)(v) shall be taken, and no further monitoring of that location is required until the action specified in 40CFR 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 re-monitoring specified in 40CFR 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 40CFR 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 40CFR 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 40CFR 60, except that “methane” shall replace all references to volatile organic compound (VOC).

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

(3) To meet the performance evaluation requirements in section 3.1.3 of Method 21 of appendix A of 40CFR 60, the instrument evaluation procedures of section 4.4 of Method 21 of appendix A of 40CFR 60 shall be used.

(4) The calibration procedures provided in section 4.2 of Method 21 of appendix A of 40CFR 60 shall be followed immediately before commencing a surface monitoring survey.

(e) The provisions of 40CFR 60.755 shall apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction, shall not exceed five (5) days for collection systems and shall not exceed one (1) hour for treatment or control devices.

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

D.1.12 Calculation of Non-methane Organic Compound (NMOC) Rate [40 CFR 60.754]

Pursuant to 40CFR 60.754 the Permittee shall:

(a) Calculate the non methane organic compound (NMOC) emission rate using either equation provided in 40 CFR 60.754(a)(1)(i) or the equation provided in 40 CFR 60.754(a)(1)(ii). Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in 40CFR 754(a)(1)(i), for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in 40CFR 754(a)(1)(i), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per megagram for $L_o$, and 4,000 parts per million by volume as hexane for the $C_{NMOC}$. For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorological site, the k value to be used is 0.02 per year.

The following equation shall be used if the actual year-to-year solid waste acceptance rate is known:

$$M_{NMOC} = \sum_{i=1}^{n} 2\, k\, L_O\, M_i\, (e^{-kt_i})\, (C_{NM}\, OC)\, (3.6\times10^{-9})$$

where,

$M_{NMOC}$= Total NMOC emission rate from the landfill, megagrams per year
k = methane generation rate constant, year$^{-1}$
$L_o$= 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
$C_{NMOC}$= concentration of NMOC, parts per million by volume as hexane
$3.6 \times 10^{-9}$= conversion factor

The mass of the nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for $M_i$ if the documentation provisions of 40CFR 60.758(d)(2) are followed.

The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown:

$$M_{NMOC} = 2\, L_o\, R\, (e^{-kc} - e^{-kt})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

$M_{NMOC}$ = mass emission rate of NMOC, megagrams 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 landfill, years
$C_{NMOC}$ = concentration of NMOC, parts per million by volume as hexane
c = time since closure, years. For active landfill c = 0 and $e^{-kc}$ = 1
$3.6 \times 10^{-9}$ = conversion factor

The mass of the nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for $M_i$ if the documentation provisions of 40CFR 60.758(d)(2) are followed.

If the calculated non methane organic compound (NMOC) emission rate is equal to or greater than 50 megagrams per year, then the Permittee shall either comply with the provisions of 40CFR 60.752 (b)(2) or determine a site-specific non methane organic compound (NMOC) emission rate using the procedures described in 40CFR 60.754 (a)(3).

(b) Tier 1. The Permittee shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.

If the NMOC emission rate calculated in 40CFR 60.754(a)(1) is less than 50 megagrams per year, then the landfill owner shall submit an emission rate report as provided in 40CFR 60.757(b)(1), and shall recalculate the NMOC mass emission rate annually as required under 40CFR 60.752(b)(1). If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the Permittee shall either comply with 40CFR 60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in 40CFR 60.754(a)(3).

Tier 2. The Permittee shall determine the NMOC concentration using the following sampling procedure. The Permittee shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger that 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The Permittee shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25C of appendix A of 40 CFR 60 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). If composite sampling is used, equal volumes shall be taken from each sample probe. If more than the required number of samples are taken, all samples shall be used in analysis. The Permittee shall divide the NMOC concentration from Method 25C of appendix A by six to convert from $C_{NMOC}$ as carbon to $C_{NMOC}$ as hexane.

The Permittee shall recalculate the NMOC mass emission rate using the equations provided in 40CFR 60.754(a)(1)(i) and (a)(1)(ii) and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in 40CFR 60.754(a)(1).

If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater that 50 megagrams per year, then the Permittee shall either comply with 40CFR 60.752(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in 40CFR 60.754(a)(4).

If the resulting NMOC mass emission rate is less than 50 megagrams per year, the Permittee shall submit a periodic estimate of the emission rate report as provided in 40CFR 60.757(b)(1) and retest the site-specific NMOC concentration every five (5) years using the methods in 40CFR 60.754(a)(3).

Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of appendix A of 40 CFR 60. The Permittee shall estimate the NMOC mass emission rate using equations in 40 CFR 60.754(a)(1)(i) or (a)(1)(ii) and using a site-specific methane generation rate constant k, and the site-specific NMOC concentration as determined in 40 CFR 60.754(a)(3) instead of the default values provided in 40 CFR 60.754(a)(1). The Permittee shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.

If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the Permittee shall comply with 40CFR 60.752(b)(2).

If the NMOC mass emission rate is less than 50 megagrams per year, then the Permittee shall submit a periodic emission rate report as provided in 40CFR 60.757(b)(1) and shall recalculate the NMOC mass emission rate annually, as provided in 40CFR 60.757(b)(1) using the equations in 40CFR 60.754(a)(1) and using the site-specific methane generation rate constant and NMOC concentration obtained in 40CFR 60.754(a)(3). The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.

The Permittee may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in 40CFR 60.754(a)(3) and (a)(4) if the method has been approved by the Administrator as provided in 40 CFR 60.752(b)(2)(i)(B).

(c) The Permittee subject to 40CFR 60.754 shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in 40CFR 51.166 or 40CFR 52.21 using AP-42 or other approved measurement procedures. If a collection system, which complies with the provisions of 40CFR 60.752(b)(2) is already installed, the Permittee shall estimate the NMOC emission rate using the procedures provided in 40CFR 60.754(b).

D.1.13 Reporting Requirements [40CFR 60.757]

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

(a) Submit an initial design capacity report to the Office of Air Quality (OAQ) no later than 90 days after October 8, 1997. The Permittee submitted the initial design report on June 17, 1996.

(b) Submit a non methane organic compound (NMOC) emission rate report to the Office of Air Quality initially and annually thereafter, except as provided for in 40CFR 60.757(b)(1)(ii) or (b) (3). The Office of Air Quality (OAQ) may request such additional information as may be necessary to verify the reported NMOC emission rate. The report should contain an annual or 5-year estimate of the non methane organic compound (NMOC) emission rate using the formula and procedures provided in 40CFR 60.754 (a) or (b), as applicable. The initial NMOC emission rate report may be combined with the initial design capacity report required in 40CFR 60.757(a) and shall be submitted no later than indicated in 40CFR 60.757(b)(1)(i)(A) and (B). June 10, 1996 for landfills that commenced construction, modification, or reconstruction on or after May 30, 1991, but before March 12, 1996, or ninety days after the date of commenced construction, modification, or reconstruction for landfills that commenced construction, modification, or reconstruction on or after March 12, 1996. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided in 40CFR 60.757(b)(1)(ii) and (b)(3). If the estimated NMOC emission rate as reported in the annual report to the Office of Air Quality (OAQ) is less than 50 megagrams per year in each of the next five (5) consecutive years, the Permittee may elect to submit an estimate of the NMOC emission rate for the next five (5) year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the five (5) years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Office of Air Quality (OAQ). This estimate shall be revised at least once every five (5) years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the five (5) year estimate, a revised five (5) year estimate shall be submitted to the Office of Air Quality. The revised estimate shall cover the five (5) year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate. The NMOC emission rate report shall include all the

data, calculations, sample reports, and measurements used to estimate the annual or five (5) year emission rate. The Permittee is exempted from the requirements of 40CFR 60.757(b)(1) and (2) after the installation of a collection and control system in compliance with 40CFR 60.752 (b)(2), during such time as the system is in operation and in compliance with 40CFR 60.753 and 60.755.

(c) 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 40CFR 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 40CFR 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 40CFR 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 40CFR 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.

(d) 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 40CFR 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 40CFR 60.7(a)(4).

(e) 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 40CFR 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. Pursuant to 40 CFR 60.752(b)(2)(v)(B), the 15-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 40CFR 60.752(b)(2)(v) have been met.

(f) Submit 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 40CFR 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under 40CFR 60.758(c).

(1) Value and length of time for exceedance of applicable parameters monitored under 40CFR 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 40CFR 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 40CFR 60.755(a)(3), (b), and (c)(4).

Pursuant to 40 CFR 63.1980, Subpart AAAA, the Permittee shall 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) every 6 months.

(g) The Permittee seeking to comply with 40CFR 40.752(b)(2)(iii) shall include the following information with the initial performance test report required under 40CFR 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 nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material.

(4) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity 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 provisions for the control of off-site migration.

(h) A summary of the above information shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit.

D.1.14 Record Keeping Requirements [326 IAC 12] [40CFR 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 five years up-to-date, readily accessible, continuous on-site records of the design capacity report which triggered 40CFR 60.752(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within four (4) hours. Either paper copy or electronic formats are acceptable.

(b) Except as provided in 40 CFR 60.752(b)(2)(i)(B) the Permittee of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment listed in (a) through (d) 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 40CFR 60.758 seeks to demonstrate compliance with 40CFR 60.752(b)(2)(ii):

The maximum expected gas generation flow rate as calculated in 40CFR 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 40CFR 60.759(a)(1).

(2) Where the Permittee subject to the provisions of 40CFR 60.758 seeks to demonstrate compliance with 40CFR 60.752(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than 44 megawatts:

The average combustion temperature measured at least every fifteen (15) minutes and averaged over the same time period of the performance test.

The percent reduction of NMOC determined as specified in 40CFR 60.752(b)(2)(iii)(B) achieved by the control device.

(3) Where the Permittee subject to the provisions of 40CFR 60.758 seeks to demonstrate compliance with 40CFR 60.752(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

(4) Where the Permittee subject to the provisions of 40CFR 60.758 seeks to demonstrate compliance with 40CFR 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, and exit velocity determinations made during the performance test as specified in 40CFR 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) the Permittee of a controlled landfill subject to the provisions of this subpart shall keep for five years up-to-date, readily accessible, continuous on-site records of the equipment operating parameters specified to be monitored in 40CFR 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) The following constitute exceedances that shall be recorded and reported under 40CFR 60.757(f):

For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28ºC below the average combustion temperature during the most recent performance test at which compliance with 40CFR 60.752(b)(2)(iii) was determined.

For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under 40CFR 60.758(b)(3)(i) of this section

(2) The Permittee subject to the provisions of 40CFR 60.758 who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with 40CFR 60.752(b)(2)(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, Tribal or Federal regulatory requirements.)

(3) The Permittee seeking to comply with the provisions of 40CFR 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 40CFR 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 40CFR 60.758 shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified in 40CFR 60.755 (b).

(2) The Permittee subject to the provisions of 40CFR 60.758 shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in 40CFR 60.759 (a)(3)(i) as well as any non-productive areas excluded from collection as provided in 40CFR 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 five years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in 40CFR 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

(f) Permittees who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of “design capacity”, shall keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

D.1.15 Recordkeeping for NESHAP for Asbestos Active Waste Disposal Sites [40 CFR 61.154]

(a) For all asbestos containing waste material received, the owner or operator of the active waste disposal site shall:

(1) Maintain waste shipment records, using a form similar to that shown in figure 4 of 40 CFR 61, Subpart M, and include the following information
- (i) The name, address, and telephone number of the waste generator;
- (ii) The name, address, and telephone number of the transporter(s);
- (iii) The quantity of the asbestos containing waste material in cubic meters (cubic yards).
- (iv) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the

presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report.

(v) The date of the receipt.

(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 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 Activity

(b) One (1) 20 gallon small parts washing station, using Safety Kleen or other similar cleaning solvent; [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)] (Cold Cleaning Degreaser Operations)**

D.2.1 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.2.2 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 (38ºC) (one hundred degrees Fahrenheit (100ºF));

(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 (38ºC) (one hundred degrees Fahrenheit (100ºF)), 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 (38ºC) (one hundred degrees Fahrenheit (100ºF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9ºC) (one hundred twenty degrees Fahrenheit (120ºF)):

(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, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of 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
# COMPLIANCE DATA SECTION

## PART 70 OPERATING PERMIT
## CERTIFICATION

Source Name: Prairie View Recycling & Disposal Facility
Source Location: 15505 Shively Road, Wyatt, IN 46595
Mailing Address: P. O. Box 128, 15505 Shively Road, Wyatt, IN 46595
Part 70 Permit No.: T141-7477-00051

**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)

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.<br><br>Signature: |
| Printed Name: |
| Title/Position: |
| Date: |

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**
**OFFICE OF AIR QUALITY**
**COMPLIANCE DATA SECTION**
**100 North Senate Avenue**
**Indianapolis, Indiana 46204-2251**
**Phone: 317-233-0178**
**Fax: 317-233-6865**

# PART 70 OPERATING PERMIT
# EMERGENCY/DEVIATION OCCURRENCE REPORT

Source Name: Prairie View Recycling & Disposal Facility
Source Location: 15505 Shively Road, Wyatt, IN 46595
Mailing Address: P. O. Box 128, 15505 Shively Road, Wyatt, IN 46595
Part 70 Permit No.: T141-7477-00051

**This form consists of 2 pages** **Page 1 of 2**

| |
|---|
| Check either No. 1 or No.2 |
| **9** 1. This is an emergency as defined in 326 IAC 2-7-1(12)<br>C 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<br>C The Permittee must submit notice in writing or by facsimile within two (**2**) days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16 |
| **9** 2. This is a deviation, reportable per 326 IAC 2-7-5(3)(c)<br>C The Permittee must submit notice in writing within ten (**10**) calendar days |

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/Deviation: |
| Describe the cause of the Emergency/Deviation: |

If any of the following are not applicable, mark N/A **Page 2 of 2**

| |
|---|
| Date/Time Emergency/Deviation started: |
| Date/Time Emergency/Deviation was corrected: |
| Was the facility being properly operated at the time of the emergency/deviation? Y N<br>Describe: |
| Type of Pollutants Emitted: TSP, PM-10, $SO_2$, VOC, $NO_X$, CO, Pb, other: |
| Estimated amount of pollutant(s) emitted during emergency/deviation: |
| 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: _____

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
# OFFICE OF AIR QUALITY
# COMPLIANCE DATA SECTION

## PART 70 OPERATING PERMIT
## SEMI-ANNUAL COMPLIANCE MONITORING REPORT

Source Name: Prairie View Recycling & Disposal Facility
Source Location: 15505 Shively Road, Wyatt, IN 46595
Mailing Address: P. O. Box 128, 15505 Shively Road, Wyatt, IN 46595
Part 70 Permit No.: T141-7477-00051

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

| |
|---|
| This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted semi-annually. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period". |
| NO DEVIATIONS OCCURRED THIS REPORTING PERIOD |

THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

| **Compliance Monitoring Requirement** (e.g. Permit Condition D.1.3) | **Number of Deviations** | **Date of each Deviation** |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

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 Significant Source Modification and Significant Permit Modification to a Part 70 Operating Permit

| | |
|---|---|
| Source Name: | Prairie View Recycling and Disposal Facility |
| Source Location: | 15505 Shively Road, Wyatt, Indiana 46595 |
| County: | St. Joseph |
| SIC Code: | 4953, 4911 |
| Source Modification No.: | 141-23430-00051 |
| Permit Modification No.: | 141-23465-00051 |
| Permit Reviewer: | Trish Earls/EVP |

On February 5, 2007, the Office of Air Quality (OAQ) had a notice published in the South Bend Tribune, South Bend, Indiana, stating that Prairie View Recycling and Disposal Facility had applied for a Significant Source Modification and Significant Permit Modification to construct a new four (4) engine gas plant to generate electricity from landfill gas combustion at the existing municipal solid waste landfill. The notice also stated that OAQ proposed to issue a permit for this installation 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 February 23, 2007, C. Bernard Rieder of Waste Management of Indiana, LLC, owner of Prairie View Recycling and Disposal Facility, submitted comments on the proposed permit. The summary of the comments and corresponding responses is as follows (additions in **bold**, deletions in ~~strikeout~~):

**Comment #1**

**SECTION D**

Condition D.1.6 ($NO_X$ Emissions): Page 7 of 19 of the Technical Support Document (TSD) clearly demonstrates that potential emissions of nitrogen oxides ($NO_X$) from the existing four engines are 59.74 tons per year, equivalent to 13.64 pounds per hour. This means emissions of $NO_X$ cannot exceed 59.74 tons per year. This same page further reinforces this point where it acknowledges that: 1) The $NO_X$ potential emissions are based on a worst-case emission factor of 1.35 grams per brake horsepower hour, and 2) Waste Management has agreed to ensure that all of the existing four engine/generator sets are equipped with automatic air/fuel controllers, in order maintain operating conditions similar to those of the April 2006 emission test. Also, it is not clear how the limit of 16.10 pounds per hour of $NO_X$ emissions was derived. Please remove Paragraph (a) of this condition, as follows:

> ~~*Total emissions of NOx from the four (4) landfill gas engine/generator sets (EG1, EG2, EG3, and EG4) combined shall not exceed 16.10 pounds per hour.*~~
>
> ~~*Compliance with this limit combined with the unrestricted potential to emit of NOx from the open flare, the TIPPER1 engine, and the three (3) passive vent flares will ensure that NOx emissions from the engine/generator sets EG1, EG2, EG3, and EG4, the open flare, the TIPPER1 engine, and the three (3) passive vent flares do not exceed 100 tons per year so that the requirements of 326 IAC 2-3 (Emission Offset) do not apply.*~~

**Response #1**

Prior to this modification, the potential to emit of the source, based on allowable emission limits, exceeded the major source threshold of 100 tons per year under 326 IAC 2-3 (Emission Offset) for NOx emissions.

The source conducted stack tests on two (2) of the existing landfill gas engines (EG1 and EG3) on April 20, 2006 to obtain information on NOx and CO emissions. The tests yielded a worst-case NOx emission factor for EG3 of 1.35 grams per hp-hr. Based on this emission factor, the unrestricted potential to emit NOx from the four (4) existing engine/generator sets (EG1, EG2, EG3, and EG4) is 59.74 tons per year of NOx. This emission rate indicated that the existing source NOx emissions did not exceed the major source threshold of 100 tons per year.

The NOx emission limit in condition D.1.6 is included in the permit in order to ensure that NOx emissions from the existing engine/generator sets do not exceed the 326 IAC 2-3 (Emission Offset) major source threshold of 100 tons per year, such that this modification will be a minor modification to an existing minor source under Emission Offset. The NOx emission limit of 16.10 pounds per hour was derived to allow the engine generator sets to emit the maximum allowable emissions of NOx while remaining under 100 tons per year, as shown in the following calculations:

99.9 tons per year maximum allowable emissions – 20.94 tons per year from the open flare – 7.66 tons per year from the TIPPER1 engine – 0.79 tons per year from the three (3) passive vent flares = 70.51 tons per year for the existing engine generator sets. 70.51 tons per year divided by 8,760 hours per year multiplied by 2000 pounds per ton yields a limit of 16.10 pounds per hour.

No changes have been made as a result of this comment.

**Comment #2**

Condition D.1.9 (Testing Requirements): Please review the previous comment for Condition D.1.6. If the $NO_X$ emissions restriction in Condition D.1.6 (a) is not needed, then emission testing is not needed. Therefore, please remove this condition.

> ~~*During the period between April 2011 and October 2011, in order to demonstrate compliance with Condition D.1.6, the Permittee shall perform NOx testing on at least one (1) of the four (4) landfill gas engine/generator sets identified as EG1, EG2, EG3, and EG4 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.*~~

**Response #2**

Since the NOx emission limit will not be removed from the permit, IDEM, OAQ has determined that periodic testing to demonstrate compliance with the NOx emission limit is warranted. Once the first repeat testing requirement has been completed it can be determined if any further testing is required. No changes have been made to the permit as a result of this comment.

**Comment #3**

**Technical Support Document**

Proposed Changes (Pages 11 of 19 – 19 of 19): Please make changes consistent with the comments listed under the section of this letter titled, “Part 70 Permit”.

**Response #3**

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. No changes have been made to the Technical Support Document.

# Indiana Department of Environmental Management
# Office of Air Quality

## Technical Support Document (TSD) for a Part 70 Significant Source Modification and Significant Permit Modification

### Source Description and Location

| | |
|---|---|
| **Source Name:** | **Prairie View Recycling and Disposal Facility** |
| **Source Location:** | **15505 Shively Road, Wyatt, IN 46595** |
| **County:** | **St. Joseph** |
| **SIC Code:** | **4953, 4911** |
| **Operation Permit No.:** | **T 141-7477-00051** |
| **Operation Permit Issuance Date:** | **July 13, 1999** |
| **Significant Source Modification No.:** | **141-23430-00051** |
| **Significant Permit Modification No.:** | **141-23465-00051** |
| **Permit Reviewer:** | **Trish Earls/EVP** |

### Existing Approvals

The source was issued Part 70 Operating Permit No. T141-7477-00051 on July 13, 1999. The source has since received the following approvals:

(a) First reopening no.: R141-13473-00051, issued on January 14, 2002;

(b) First administrative amendment no.: AA141-18753-00051, issued on March 24, 2004;

(c) Second administrative amendment no.: AA141-19860-00051, issued on November 18, 2004;

(d) First Significant Permit Modification No.: 141-19803-00051, issued on June 9, 2005;

(e) Third Administrative Amendment No.: AA141-21158-00051, issued on June 23, 2005; and

(f) Second Significant Permit Modification: 141-21776-00051, issued on March 2, 2006.

The source also submitted an application for a Part 70 Operating Permit Renewal on October 14, 2003. At this time, this application is still under review.

### County Attainment Status

The source is located in St. Joseph County.

| Pollutant | Status |
|---|---|
| PM10 | Attainment |
| PM2.5 | Attainment |
| $SO_2$ | Attainment |
| $NO_2$ | Attainment |
| 8-hour Ozone | Nonattainment |
| CO | Attainment |
| Lead | Attainment |

(a) Volatile organic compounds (VOC) and nitrogen oxides (NOx) 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 and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. St. Joseph County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) St. Joseph 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 PM2.5 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 a surrogate for PM2.5 emissions.

(c) St. Joseph County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 redesignating Delaware, Greene, Jackson, Vanderburgh, Vigo and Warrick Counties to attainment for the eight-hour ozone standard, redesignating Lake County to attainment for the sulfur dioxide standard, and revoking the one-hour ozone standard in Indiana.

(e) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

## Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

| Pollutant | Emissions (tons/year) |
|---|---|
| PM | <100 |
| PM10 | <100 |
| $SO_2$ | <100 |
| VOC | <100 |
| CO | >100, <250 |
| $NO_x$ | <100* |

*Although allowable NOx emissions from the source were greater than 100 tons per year prior to this modification, actual emissions were less than 100 tons per year based on recent stack test data, therefore, the source-wide NOx emission limits are being revised so that NOx emissions from the existing source are limited to less than 100 tons per year.

(a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(b) This existing source is not a major stationary source under Emission Offset (326 IAC 2-3) because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or more.

(c) These emissions are based upon Part 70 Operating Permit No. T141-7477-00051 and all approvals issued since the Part 70 permit was issued.

The table below summarizes the potential to emit HAPs for the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

| HAPs | Potential To Emit (tons/year) |
|---|---|
| Single HAPs | Less than 10 |
| TOTAL | Less than 25 |

This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

## 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) |
|---|---|
| PM | Not reported |
| PM10 | 20.0 |
| PM2.5 | 2.0 |
| $SO_2$ | 11.0 |
| VOC | 9.0 |
| CO | 113.0 |
| $NO_x$ | 107.0* |
| HAP | Not reported |

*NOx emissions were reported at greater than 100 tons per year based on previous emission factors obtained from the engine manufacturer. The recent stack test results indicate actual emissions were less than 100 tons per year.

## Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Prairie View Recycling and Disposal Facility (Prairie View) on July 27, 2006, relating to the construction of a new four (4) engine gas plant to generate electricity from landfill gas combustion at the existing municipal solid waste landfill. The following is a list of the proposed emission units:

Four (4) Caterpillar 3516 landfill gas fueled reciprocating internal combustion engine/generator sets, identified as EG5, EG6, EG7, and EG8. The generators are each rated at 1148 horsepower, and each exhausts through one (1) stack, identified as ES5, ES6, ES7, and ES8, respectively.

Prairie View has also requested that the following additional sources of emissions, which would support the operation of the gas recovery plant, be added to the source as insignificant or trivial activities:

(a) One (1) 20 gallon small parts washing station, using Safety Kleen or other similar cleaning solvent;
(b) Vessels storing motor oil and transmission fluid ranging in size from 200 gallons to 500 gallons, and 55 gallon drums for antifreeze storage;
(c) One (1) waste oil storage tank ranging in size from 500 gallons to 1,000 gallons;
(d) Crankcase breather vents for each engine, emitting a maximum of 0.81 pounds of PM per hour;

(e) A process gas chromatograph;
(f) Maintenance welding, cutting, and grinding equipment;
(g) Application of oils, greases, or other lubricants;
(h) Electric powered air compressors.

Finally, in order to ensure that CO emissions from the existing source are less than 250 tons per year, the source is removing one (1) of the four (4) existing passive vent flares.

## Enforcement Issues

There are no pending enforcement actions.

## Stack Summary

| Stack ID | Operation | Height (feet) | Diameter (feet) | Flow Rate (acfm) | Temperature ($^0$F) |
|---|---|---|---|---|---|
| ES5 | EG5 | 22 | 0.83 | ~6,000 | 800 |
| ES6 | EG6 | 22 | 0.83 | ~6,000 | 800 |
| ES7 | EG7 | 22 | 0.83 | ~6,000 | 800 |
| ES8 | EG8 | 22 | 0.83 | ~6,000 | 800 |

## Emission Calculations

See Appendix A of this document for detailed emission calculations.

## Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit 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, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

| Pollutant | Potential To Emit (tons/year) |
|---|---|
| PM | 11.12 |
| PM10 | 11.12 |
| $SO_2$ | 2.05 |
| VOC | 0.39 |
| CO | 113.72 |
| $NO_x$ | 59.74 |

| HAPs | Potential To Emit (tons/year) |
|---|---|
| Dichloromethane | 0.06 |
| Hexane | 0.05 |
| Toluene | 0.34 |
| Xylenes | 0.12 |
| HCl | 1.05 |
| All other HAPs | 0.22 |
| TOTAL | 1.84 |

This source modification is subject to 326 IAC 2-7-10.5(f)(4) because the potential to emit of NOx and CO from the modification are greater than 25 and 100 tons per year, respectively. Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d)(1) because every significant change in existing monitoring Part 70 permit terms or conditions and every relaxation of reporting or record keeping permit terms or conditions shall be considered significant. This modification also includes revisions to the existing NOx emission limits to render the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

## Permit Level Determination – PSD and Emission Offset

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 significant source modification and Part 70 significant permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

| | **Potential to Emit (tons/year)** | | | | | | |
|---|---|---|---|---|---|---|---|
| **Process/Emission Unit** | **PM** | **PM10** | **$SO_2$** | **VOC** | **CO** | **$NO_X$** | **Total HAPs** |
| **Four-engine generator sets (EG5, EG6, EG7, and EG8)** | 6.94 | 6.94 | 2.05 | 0.39 | 113.72 | 59.74 | 1.84 |
| **Insignificant Activities** | 3.55 | 3.55 | -- | Negligible | -- | -- | -- |
| Total for Modification | 11.12 | 11.12 | 2.05 | 0.39 | 113.72 | 59.74 | 1.84 |
| Significant Level or Major Source Threshold | 250 | 250 | 250 | 100 | 250 | 100 | N/A |

This modification to an existing minor stationary source is not major because the emissions increase is less than the PSD major source thresholds. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

This modification to an existing minor stationary source is not major because the emissions increase is less than the Emission Offset major source thresholds. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

## Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(b) The municipal solid waste landfill is subject to the New Source Performance Standard for Municipal Solid Waste Landfills (40 CFR 60.750, Subpart WWW), which is incorporated by reference as 326 IAC 12. The requirements of this rule are already included in the Part 70 operating permit.

Pursuant to a determination letter from EPA region V (dated February 25, 2004), the existing landfill gas treatment system at the source is considered a treatment system that meets the intent of 40 CFR 60.752 (b)(2)(iii)(c) so that the treated gas sent to a control device is no longer subject to the requirements of 40 CFR 60, Subpart WWW and 40 CFR 63, Subpart AAAA. Therefore, the four (4) existing engine/generator sets and the four (4) new engine/generator sets (EG5, EG6, EG7, and EG8), which combust the treated landfill gas, are not subject to the operational requirements in 40 CFR 60.753, the testing requirements in 40 CFR 60.754, the monitoring requirements in 40 CFR 60.756, the reporting requirements in 40 CFR 60.757, and the record keeping requirements in 40 CFR 60.758. The requirements of 40 CFR 63, Subpart WWW for the four (4) existing engine/generator sets were removed from the Part 70 permit in First Significant Permit Modification No.: 141-19803-00051, issued on June 9, 2005.

(c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed modification.

(d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63.6580 through 63.6675, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, are not included in this modification for the four (4) engine/generator sets (EG5, EG6, EG7, and EG8) because pursuant to 40 CFR 63.6585, this rule applies to a stationary reciprocating internal combustion engine (RICE) at a major source of HAP emissions. Since this source is not a major source of HAP emissions, the requirements of this rule are not included for the four (4) new engine/generator sets.

(e) The insiginificant parts washer is not subject to the requirements of the NESHAP, 40 CFR 63, Subpart T, Halogenated Solvent Cleaning, because the solvent used by the parts washer does not contain any halogenated solvents regulated by this rule.

(f) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

| Emission Unit | Control Device Used | Emission Limitation (Y/N) | Uncontrolled PTE (tons/year) | Controlled PTE (tons/year) | Major Source Threshold (tons/year) | CAM Applicable (Y/N) | Large Unit (Y/N) |
|---|---|---|---|---|---|---|---|
| EG5 – all pollutants | None | N | <100 | <100 | 100 | N | N |
| EG6 – all pollutants | None | N | <100 | <100 | 100 | N | N |
| EG7 – all pollutants | None | N | <100 | <100 | 100 | N | N |
| EG8 – all pollutants | None | N | <100 | <100 | 100 | N | N |

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the new units as part of this modication.

## State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

**326 IAC 2-2 and 2-3 (PSD and Emission Offset)**
PSD and Emission Offset applicability is discussed under the Permit Level Determination - PSD and Emission Offset section.

Prior to this modification, the potential to emit of the source based on allowable emission limits in the Part 70 permit exceeded the major source threshold of 100 tons per year under 326 IAC 2-3 (Emission Offset) for NOx emissions.

The source conducted stack tests on two (2) of the existing landfill gas engines (EG1 and EG3) on April 20, 2006 to obtain information on emissions of NOx and CO. The tests yielded a worst-case NOx emission factor for EG3 of 1.35 grams per hp-hr. Based on this emission factor, the unrestricted potential to emit NOx from the four (4) existing engine/generator sets (EG1, EG2, EG3, and EG4) is 59.74 tons per year of NOx. Source-wide unrestricted NOx and VOC emissions are each less than 100 tons per year, making this a minor source under Emission Offset. Because of the stack test results, the previous power generation limit and associated oxygen content and engine timing limits for the four (4) existing engine/generator sets to limit NOx emissions to less than 100 tons per year are no longer required and will be removed from the Part 70 permit. The following limit will be added to the Part 70 permit to ensure that source-wide NOx emissions from the existing units are less than 100 tons per year so that this modification will be a minor modification to an existing minor source under Emission Offset:

(a) Total emissions of NOx from the four (4) existing landfill gas engine/generator sets (EG1, EG2, EG3, and EG4) combined shall not exceed 16.10 pounds per hour. Based on operation at a maximum of 8,760 hours per year, this is equivalent to 70.51 tons of NOx per year from the engine/generator sets for a source-wide potential to emit of less than 100 tons per year.

Three of the existing engine/generator sets, EG1, EG2 and EG4 are currently equipped with manual air/fuel controllers to regulate air and fuel flow to the engines. The fourth engine/generator set, EG3, is equipped with an automatic air/fuel controller. The source obtained emission factors from the recent stack testing for EG1 and EG3. If the source were to use the NOx and CO emission factors from EG1 for the existing engine/generator sets EG1, EG2, and EG4, NOx emissions would be less than 100 tons per year but additional parametric monitoring requirements would have to be added to the Part 70 permit for these engines to ensure that they were operated under the same conditions that EG1 was operated at during the stack test. Since EG3 has an automatic air/fuel controller, no additional monitoring would be necessary since the controller ensures that the operating conditions are maintained. Therefore, in order to be able to use the emission factors obtained for EG3 without additional parametric monitoring requirements, the source has opted to upgrade the existing engine/generator sets, EG1, EG2, and EG4, by installing automatic air/fuel controllers on each of these engines. The source will be required to install these automatic air/fuel controllers on the existing engines prior to start-up of the four (4) new engine/generator sets (EG5, EG6, EG7, and EG8). This will also allow for the removal of the engine timing and oxygen content limits previously included to limit NOx emissions. Each of the four (4) new engine/generator sets is equipped with an automatic air/fuel controller.

Additionally, based on the CO emission factor obtained from the stack test, CO emissions from the four (4) existing engine/generator sets plus CO emissions from the existing open flare, the existing TIPPER1 engine, and the existing four (4) passive vent flares based on previous emission calculations is slightly greater than 250 tons per year. However, the source has agreed to remove one (1) of the four (4) passive vent flares from operation. By removing one of the passive vent flares, the unrestricted potential CO emissions from the existing open flare, the existing TIPPER1 engine, and the three remaining passive vent flares is 245.76 tons per year. Therefore, CO emissions from the existing source are less than 250 tons per year making it an existing minor source under 326 IAC 2-2 (PSD). Actual CO emissions from the existing units were less than 250 tons per year.

Since the unrestricted potential to emit of all pollutants from this modification are less than 250 tons per year and the unrestricted potential to emit of NOx and VOC from this modification are less than 100 tons per year, each, this modification is not subject to the requirements of 326 IAC 2-2 (PSD) or 326 IAC 2-3 (Emission Offset). The source will become a major source under both PSD and Emission Offset after this modification.

The table below summarizes the potential to emit, reflecting all limits, of the new and existing emission units at the source.

| | **Potential to Emit (tons/year)** | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Process/Emission Unit** | **PM** | **PM10** | **$SO_2$** | **VOC** | **CO** | **$NO_X$** | **Single HAP** | **Total HAPs** |
| Existing four-engine generator sets (EG1, EG2, EG3, and EG4) | 7.57 | 7.57 | 2.05 | 0.39 | 113.72 | 59.74 | 1.05 (HCl) | 1.89 |
| Landfill | 0.00 | 0.00 | 0.00 | 14.06 | 0.00 | 0.00 | 2.50 (Toluene) | 6.96 |
| Open flare | 1.99 | 1.99 | 4.68 | 0.59 | 113.91 | 20.94 | 2.23 (HCl) | 2.28 |
| TIPPER1 Engine | 1.09 | 1.09 | 1.02 | 1.27 | 3.35 | 7.66 | Negl. | Negl. |
| Three (3) passive vent flares | 0.34 | 0.34 | 0.34 | 0.11 | 14.78 | 0.79 | 0.0 | 0.0 |
| Fugitives Unpaved Road | 45.79 | 12.36 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugitives Paved Road | 5.80 | 1.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Emissions Existing Units | 62.58 | 24.48 | 8.09 | 16.42 | 245.76 | 89.13 | 3.28 (HCl) | 11.13 |
| Major Source Threshold Under PSD or Emission Offset | 250 | 250 | 250 | 100 | 250 | 100 | N/A | N/A |

| | **Potential to Emit (tons/year)** | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Process/Emission Unit** | **PM** | **PM10** | **$SO_2$** | **VOC** | **CO** | **$NO_X$** | **Single HAP** | **Total HAPs** |
| New four-engine generator sets (EG5, EG6, EG7, and EG8) | 7.57 | 7.57 | 2.05 | 0.39 | 113.72 | 59.74 | 1.05 (HCl) | 1.89 |
| New Insignificant Activities | 3.55 | 3.55 | -- | Negl. | -- | -- | -- | -- |
| Total for Modification | 11.12 | 11.12 | 2.05 | 0.39 | 113.72 | 59.74 | 1.05 (HCl) | 1.89 |
| Significant Modification Threshold | 250 | 250 | 250 | 100 | 250 | 100 | N/A | N/A |
| Total for Source | 73.70 | 35.60 | 10.14 | 16.81 | 359.48 | 148.87 | 4.33 (HCl) | 13.02 |

**326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))**
The operation of the four (4) new engine/generator sets (EG5, EG6, EG7, and EG8) will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

**326 IAC 2-6 (Emission Reporting)**
Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). In accordance with the compliance schedule in 326 IAC 2-6-3, an emission statement must be submitted triennially. The first report was due no later than July 1, 2004, and subsequent reports are due every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

**326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)**
The four (4) new engine/generator sets are not subject to the requirements of this rule since they are not sources of indirect heating.

**326 IAC 8-3-2 (Cold Cleaner Operations)**
Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations (parts washing station) 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.

**326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control)**
(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs (parts washing station) 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 (38OC) (one hundred degrees Fahrenheit (100OF));

(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 (38OC) (one hundred degrees Fahrenheit (100OF)), 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 (38OC) (one hundred degrees Fahrenheit (100OF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9OC) (one hundred twenty degrees Fahrenheit (120OF)):

(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, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of 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.

## Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a 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 Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements 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.

There are no Compliance Determination Requirements applicable to the new units being added in this modification.

Testing is not required for the new engine generator sets because there are no applicable emission limits for these engines which require a compliance determination.

The compliance determination requirements added to the permit as a result of this modification are as follows:

(a) A repeat testing requirement will be added for the four (4) existing engine generator sets to demonstrate compliance with the NOx emission limit to render 326 IAC 2-3, Emission Offset not applicable.

## Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T141-7477-00051. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

1. Section A.1 has been revised to indicate that after this modification, the source will be a major source under PSD and Emission Offset as follows:

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

The Permittee owns and operates a stationary municipal solid waste landfill (MSLWLF)

| | |
|---|---|
| Responsible Official: | James Davis |
| Source Address: | 15505 Shively Road, Wyatt, IN 46595 |
| Mailing Address: | P. O. Box 128, 15505 Shively Road, Wyatt, IN 46595 |
| SIC Code: | 4953 |
| County Location: | St. Joseph |
| County Status: | Basic Non-attainment for Ozone under 8-hour standard,<br>Attainment for all other criteria pollutants |
| Source Status: | Part 70 Permit Program<br>~~Minor~~ **Major** Source, under PSD and Emission Offset Rules<br>Minor Source, section 112 of Clean Air Act |

2. Section A.2 has been revised to include the new engine/generator sets as follows:

A.2 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:

(a) One (1) solid waste disposal facility having the meaning described in 40 CFR 60.751 pertaining to all contiguous land and structures, other appurtenances (including haul roads), and improvements on the land used for disposal of solid waste that opened in 1981 and has a design capacity of 15.30 Million Megagrams.

(b) One (1) **open** flare with a capacity of 2,130 scfm **of landfill gas**, constructed in 2004. There is no physical means to bypass the landfill gas flow before it reaches the open flare.

(c) Four (4) Caterpillar ~~3561~~ **3516** landfill gas fueled engine/generator sets**, identified as EG1, EG2, EG3, and EG4,** and a single fuel gas compressor. The generators are rated at 800 kilowatts each, and were installed in 1994.

(d) Gas treatment system**, installed in 1994,** consisting of dewatering, compressions, cooling, filtering and heat exchange operations. The gas treatment system is enclosed and has no atmospheric vents.

**(e) Four (4) Caterpillar 3516 landfill gas fueled reciprocating internal combustion engine/generator sets, identified as EG5, EG6, EG7, and EG8, to be installed in 2007. The engines are rated at 1148 horsepower each, and each exhausts through one (1) stack, identified as ES5, ES6, ES7, and ES8, respectively.**

3. Section A.3 is revised to include the 20 gallons parts washing station which is subject to 326 IAC 8-3-2 and 326 IAC 8-3-5 for cold cleaner degreasers and to remove one passive vent flare as follows:

A.3 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, as defined in 326 IAC 2-7-1(21):

(a) ~~Four (4)~~ **Three (3)** passive vent flares, each with a capacity of 50 scfm of landfill gas, constructed in 2005.

**(b) One (1) 20 gallon small parts washing station, using Safety Kleen or other similar cleaning solvent; [326 IAC 8-3-2][326 IAC 8-3-5]**

4. Section D.1 is revised as follows:

**SECTION D.1 FACILITY OPERATION CONDITIONS**

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

(a) One (1) solid waste disposal facility having the meaning described in 40CFR 60.751 pertaining to all contiguous land and structures, other appurtenances (including haul roads), and improvements on the land used for disposal of solid waste that opened in 1981 and has a design capacity of 15.30 Million Megagrams;

(b) One (1) **open** flare with a capacity of 2,130 scfm **of landfill gas**, constructed in 2004. There is no physical means to bypass the landfill gas flow before it reaches the open flare.

(c) Four (4) Caterpillar ~~3561~~ **3516** landfill gas fueled engine/generator sets**, identified as EG1, EG2, EG3, and EG4,** and a single fuel gas compressor. The generators are rated at 800 kilowatts each, and were installed in 1994.

(d) Gas treatment system**, installed in 1994,** consisting of dewatering, compressions, cooling, filtering and heat exchange operations. The gas treatment system is enclosed and has no atmospheric vents.

**(e) Four (4) Caterpillar 3516 landfill gas fueled reciprocating internal combustion engine/generator sets, identified as EG5, EG6, EG7, and EG8, to be installed in 2007. The engines are rated at 1148 horsepower each, and each exhausts through one (1) stack, identified as ES5, ES6, ES7, and ES8, respectively.**

(The information describing the process contained in the 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 [326 IAC 12-1][40 CFR Part 60, Subpart A] and to HAPs [326 IAC 14-1-1][40 CFR Part 61, Subpart A]

(a) The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, 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) Pursuant to a determination letter from EPA region V (dated February 25, 2004), the landfill gas treatment system at the source is considered a treatment system that meets the intent of 40 CFR 60.752 (b)(2)(iii)(c). The ~~four (4)~~ **eight (8)** engine/generator sets **(EG1 through EG8)**, which combust the treated landfill gas, are not subject to the operational requirements in 40 CFR 60.753, the testing requirements in 40 CFR 60.754, the monitoring requirements in 40 CFR 60.756, the reporting requirements in 40 CFR 60.757, and the record keeping requirements in 40 CFR 60.758. The ~~four (4)~~ **eight (8)** engine/generator sets **(EG1 through EG8)** are also not subject to the requirements of 40 CFR 63, Subpart AAAA and 40 CFR 63, Subpart ZZZZ.

D.1.2 Non-applicability Determination

The municipal solid waste landfill is not subject to the provisions of the following 40 CFR Part 60 Subparts: Cc, D, Da, Db, Dc, E, Ea, Eb, K, Ka, Kb, O, GG, and OOO.

D.1.3 Municipal Solid Waste Landfill NSPS [326 IAC 12] [40CFR 60.752, Subpart WWW]

The municipal solid waste landfill has a design capacity greater than 2.5 million megagrams (Mg) and shall either comply with 40CFR 60.752 (b)(2) or calculate the non methane organic compound (NMOC) emission rate for the landfill using the procedures specified in 40 CFR 60.754.

D.1.4 Operational Standards for Collection and Control Systems [40CFR 60.753]

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 40CFR 60.757(f)(1).

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

(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Office of Air Quality (OAQ).

(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55ºC and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The Permittee may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

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

(2) Unless an alternative test method is established as allowed by 40CFR 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 40CFR 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 40CFR 60.753(b), (c), or (d) are not met, corrective action shall be taken as specified in 40CFR 60.755(a)(3) through (5) or 40CFR 60.755(c). If corrective actions are taken as specified in 40CFR 60.755, the monitored exceedance is not a violation of the operational requirements in 40CFR 60.753.

~~D.1.5 NOx Emissions [326 IAC 2-3 (Emission Offsets)]~~

~~The four (4) Caterpillar 3561 landfill gas fueled engine/generator sets shall not generate more than a combined total of 3.27 million BHP-hrs per month (39.27 million BHP-hrs per 12 month period), based on a twelve month average rolled on a monthly basis. The engine timing shall not exceed 20 degrees BTDC and the oxygen content in the exhaust gas shall be at least six (6) percent. The above emission limit will limit NOx emissions to 99.6 tons per year. Therefore, per Construction Permit No. CP-141-3483, issued July 5, 1994, 326 IAC 2-3 [Emission Offsets] does not apply.~~

~~D.1.6 Oxygen Readings [326 IAC 2-3 (Emission Offsets)]~~

~~Four equally apart oxygen readings will be taken per month to compare with the percent oxygen in the exhaust - NOx emissions relationship developed from the results of the initial performance tests to document compliance with the NOx emission limitations.~~

~~D.1.7 Engine Operations [326 IAC 2-3 (Emission Offsets)]~~

~~The engine timings will not be changed between the oxygen readings required in Section D.1.6.~~

D.1.~~8~~**5** NESHAP for Asbestos Active Waste Disposal Sites [40 CFR 61.154]

In order to comply with 40 CFR 61.154 the Permittee must comply with the following:

(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 (2) or (3) below.

(b) **At the end of each operating day, or a**~~A~~t 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 non-asbestos 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.

(d) Also, unless a natural barrier deters access by the general public, warning signs and fencing must be installed or the requirements of paragraph (2)(a) above must be met.

**D.1.6 NOx Emissions [326 IAC 2-3]**

**(a) Total emissions of NOx from the four (4) landfill gas engine/generator sets (EG1, EG2, EG3, and EG4) combined shall not exceed 16.10 pounds per hour.**

**Compliance with this limit combined with the unrestricted potential to emit of NOx from the open flare, the TIPPER1 engine, and the three (3) passive vent flares will ensure that NOx emissions from the engine/generator sets EG1, EG2, EG3, and EG4, the open flare, the TIPPER1 engine, and the three (3) passive vent flares do not exceed 100 tons per year so that the requirements of 326 IAC 2-3 (Emission Offset) do not apply.**

**(b) In order to ensure compliance with the limit in (a) above, the Permittee shall install automatic air/fuel controllers on each of the engine/generator sets identified as EG1, EG2, and EG4, prior to start-up of any of the engine/generator sets identified as EG5, EG6, EG7, and EG8.**

**D.1.7 CO Emissions [326 IAC 2-2]**

**The Permittee shall not operate more than three (3) passive vent flares at this municipal solid waste landfill.**

**Compliance with this requirement combined with the unrestricted potential to emit of CO from the four (4) engine/generator sets identified as EG1, EG2, EG3, and EG4, the TIPPER1 engine, and the open flare will ensure that CO emissions from the open flare, the four (4) engine/generator sets identified as EG1, EG2, EG3, and EG4, the TIPPER1 engine, and the three (3) passive vent flares are less than 250 tons per year so that the requirements of 326 IAC 2-2 (PSD) do not apply.**

**Compliance Determination Requirements**

***

**D.1.9 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

**During the period between April 2011 and October 2011, in order to demonstrate compliance with Condition D.1.6, the Permittee shall perform NOx testing on at least one (1) of the four (4) landfill gas engine/generator sets identified as EG1, EG2, EG3, and EG4 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.**

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

***

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

~~D.1.12 Record Keeping Requirements~~

~~(a) To document compliance with Condition D.1.5, the Permittee shall maintain records of total input of landfill gas to the four (4) landfill gas fueled reciprocating engine/generator sets and flare.~~

***

D.1.~~14~~**13** Reporting Requirements [40CFR 60.757]

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

(a) Submit an initial design capacity report to the Office of Air Quality (OAQ) no later than 90 days after October 8, 1997. ~~An amended design capacity report shall be submitted to the Office of Air Quality (OAQ) providing notification of any increase in the design capacity of the landfill.~~ The Permittee submitted the initial design report on June 17, 1996.

***

~~D.1.15 Additional Reporting Requirements~~

~~A quarterly summary of the information to document compliance with Conditions D.1.5 and D.1.6 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty days of the end of the reporting period.~~

5. A new section D.2 was added to the permit for the parts washer as follows:

**SECTION D.2 FACILITY OPERATION CONDITIONS**

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

**Insignificant Activity**

**(b) One (1) 20 gallon small parts washing station, using Safety Kleen or other similar cleaning solvent; [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)] (Cold Cleaning Degreaser Operations)**

**D.2.1 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.2.2 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 (38ºC) (one hundred degrees Fahrenheit (100ºF));**

**(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 (38ºC) (one hundred degrees Fahrenheit (100ºF)), 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 (38ºC) (one hundred degrees Fahrenheit (100ºF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9ºC) (one hundred twenty degrees Fahrenheit (120ºF)):**

**(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, and heavier than, water.**

**(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of 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.**

6. The requirements included in condition B.9, Certification are already included on the cover page of the Part 70 permit. The condition has been updated as follows:

B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)]**[326 IAC 2-7-5(3)(C)]**

~~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; and denial of a permit renewal application. 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 condition B, Emergency Provisions.~~

**(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).**

7. The phone number and the fax number listed in condition B.11, Emergency Provisions, have been changed so that the OAQ's receptionist number is listed and the fax number for the compliance branch is listed.

B.12 Emergency Provisions [326 IAC 2-7-16]

***

(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:

***

(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-~~5674~~ **0178** (ask for Compliance Section)
Facsimile Number: 317-233-~~5967~~ **6865**

***

## Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 141-23430-00051 and Significant Permit Modification No. 141-23465-00051. The staff recommends to the Commissioner that this Part 70 Significant Source and Significant Permit Modification be approved.

## *Utility Engine/Generator Sets Criteria Pollutants*

**Company Name:** Prairie View Recycling and Disposal Facility
**Address City IN Zip:** 15505 Shively Road, Wyatt, IN 46595
**Source Modification No.:** 141-23430-00051
**Reviewer:** TE/EVP

| Pollutant | NOx | CO |
|---|---|---|
| Emission Factors (g/hp-hr) | 1.35 | 2.57 |

Emission factors from stack test conducted on April 20, 2006 on existing Engine #3.

**Performance Data for the Caterpillar 3516 Engines:**

| | | |
|---|---|---|
| Rating: | 1148 | brake horsepower-hr per engine (at 100% full load) |
| Rating: | 8.9 | MMBtu/hr of heat input |
| LFG Heat Input: | 550 | BTU per scf of LFG |
| Flow: | 250 | scfm landfill gas per engine |
| | 15000 | scfh landfill gas per engine |

**Other data:**

| | | |
|---|---|---|
| NMOC: | 595 | ppmv as hexane from AP-42 Section 2.4, Table 2.4-2 |
| % VOC | 39.00% | of total NMOC or 235 ppmv as hexane from AP-42 Section 2.4, Table 2.4-2 |
| Sulfur | 46.9 | ppmv from page 2.4-8 of AP-42 Section 2.4 |
| PM10 | 48 | lbs/MMdscf methane from AP-42 Section 2.4, Table 2.4-5 |
| Control Eff. NMOC | 97.20% | from AP-42, Table 2.4-3 |
| CH4 | 55.00% | average landfill gas methane concentration |

**NOx and CO Emissions calculations**

**Total Potential Emissions from four (4) engine/generator sets**

| Description | Horsepower (hp) | MMBtu/hr | $NO_x$ lb/hr | $NO_x$ ton/yr | CO lb/hr | CO ton/yr |
|---|---|---|---|---|---|---|
| One engine / generator sets | 1148.00 | 8.90 | 3.41 | 14.93 | 6.49 | 28.43 |
| Four (4) engine / generator sets | 4592.00 | 35.60 | 13.64 | 59.74 | 25.96 | 113.72 |

| | | | | | | | | | | | Each Engine | | All Four Engines |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SO2:** | | | | | | | | | | | | | |
| 46.9 / 1,000,000 | ppm sulfur x | 64 / 385.4 | mol. Wt. SO2 * / scf/lb-mole | 15,000 scfh x | 8760 | hrs x / year | 1 ton x / 2000 lbs | | | **0.12** lbs/hr / **0.51** tons/year | = | **0.47** lbs/hr / **2.05** tons/year |
| **NMOC:** | | | | | | | | | | | | |
| 595 / 1,000,000 | ppm NMOC x | 86.18 / 385.4 | mol. Wt. Hex. * / scf/lb-mole | 15,000 scfh x | 8760 | hrs x / year | 1 ton x / 2000 lbs | (1 - .972) = | | **0.06** lbs/hr / **0.24** tons/year | = | **0.22** lbs/hr / **0.98** tons/year |
| **VOC:** | | | | | | | | | | | | |
| 235 / 1,000,000 | ppm VOC x | 86.18 / 385.4 | mol. Wt. Hex. * / scf/lb-mole | 15,000 scfh x | 8760 | hrs x / year | 1 ton x / 2000 lbs | (1 - .972) = | | **0.02** lbs/hr / **0.10** tons/year | = | **0.09** lbs/hr / **0.39** tons/year |
| **PM:** | | | | | | | | | | | | |
| 48 | lbs PM * / MMdscf CH4 | 15,000 | scf LFG x / hr | 55% | CH4 * / LFG | 1 MMdscf * / 1,000,000 | 8760 | hrs x / year | 1 ton x / 2000 lbs | **0.40** lbs/hr / **1.73** tons/year | = | **1.58** lbs/hr / **6.94** tons/year |
| **PM10:** | | | | | | | | | | | | |
| 48 | lbs PM * / MMdscf CH4 | 15,000 | scf LFG x / hr | 55% | CH4 * / LFG | 1 MMdscf * / 1,000,000 | 8760 | hrs x / year | 1 ton x / 2000 lbs | **0.40** lbs/hr / **1.73** tons/year | = | **1.58** lbs/hr / **6.94** tons/year |

## *Utility Engine/Generator Sets Hazardous Air Pollutants*

**Company Name:** Prairie View Recycling and Disposal Facility
**Address City IN Zip:** 15505 Shively Road, Wyatt, IN 46595
**Source Modification No.:** 141-23430-00051
**Reviewer:** TE/EVP

***Note: Information on pollutant concentrations and control efficiencies were taken from Section 2.4 of AP-42***

| | | |
|---|---|---|
| Maximum Gas Flow Rate: | 250 | scfm per engine |
| | 1000 | scfm (all four engines) |
| | 60000 | scfh (all four engines) |
| Maximum heat input: | 8.9 | MMBtu/hr per engine |
| Maximum operating hours: | 8760 | hours |
| Gas Quality: | 550 | Btu/ft3 of LFG (heating value) |

| | Molecular Weight | Conc., ppmv | CAS No. |
|---|---|---|---|
| **1,1,1-Trichloroethane** | 133.41 | 0.48 | 71556 |
| **1,1,2,2-Tetrachloroethane** | 167.85 | 1.11 | 79345 |
| **1,1-Dichloroethane** | 98.97 | 2.35 | 75343 |
| **1,1-Dichloroethene** | 96.94 | 0.2 | 75354 |
| **1,2-Dichloroethane** | 98.96 | 0.41 | 107062 |
| **1,2-Dichloropropane** | 112.99 | 0.18 | 78875 |
| **Acyrylonitrile** | 53.06 | 6.33 | 107131 |
| **Benzene** | 78.11 | 1.91 | 71432 |
| **Carbon disulfide** | 76.13 | 0.58 | 75150 |
| **Carbon tetrachloride** | 153.84 | 0.004 | 56235 |
| **Carbonyl sulfide** | 60.07 | 0.49 | 463581 |
| **Chlorobenzene** | 112.56 | 0.25 | 108907 |
| **Chloroethane** | 64.52 | 1.25 | 75003 |
| **Dichlorobenzene** | 147 | 0.21 | 106467 |
| **Chloroform** | 119.39 | 0.03 | 67663 |
| **Dichloromethane** | 84.94 | 14.3 | 75092 |
| **Ethylbenzene** | 106.16 | 4.61 | 100414 |
| **Hexane** | 86.18 | 6.57 | 110543 |
| **Mercury** | 200.61 | 0.00029 | 7439976 |
| **Methyl isobutyl ketone** | 100.16 | 1.87 | 108101 |
| **Perchloroethylene** | 165.83 | 3.73 | 127184 |
| **Toluene** | 92.13 | 39.3 | 108883 |
| **Trichloroethylene** | 131.4 | 2.82 | 79016 |
| **Vinyl chloride** | 62.5 | 7.34 | 75014 |
| **Xylenes** | 106.16 | 12.1 | 1330207 |
| **HCl** | 36.5 | 42 | 7647010 |

| | | |
|---|---|---|
| Control Efficiency | 93.00% | For Halogenated Species (AP-42 Table 2.4-3) |
| Control Efficiency | 86.10% | For Non Halogenated Species (AP-42 Table 2.4-3) |

Calculate maximum throughput in MMBtu/hr:

250 cfm x 550 Btu/ft3 x 1 MMBtu/ 1,000,000 Btu = 0.1375 MMBtu/min.
= 8.25 MMbtu/hr

### ***Calculate Potential Emissions for Hazardous Air Pollutants***

**1,1,1-Trichloroethane**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.48 | ppm HAP x | 133.41 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .93) = | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0031** tons/year | | **0.0007** | lbs/hour |

**1,1,2,2-Tetrachloroethane**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.11 | ppm HAP x | 167.85 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .93) = | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0089** tons/year | | **0.0020** | lbs/hour |

**1,1-Dichloroethane**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.35 | ppm HAP x | 98.97 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .93) = | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0111** tons/year | | **0.0025** | lbs/hour |

**1,1-Dichloroethene**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.2 | ppm HAP x | 96.94 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .93) = | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0009** tons/year | | **0.0002** | lbs/hour |

**1,2-Dichloroethane**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.41 | ppm HAP x | 98.96 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .93) = | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0019** tons/year | | **0.0004** | lbs/hour |

**1,2-Dichloropropane**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.18 | ppm HAP x | 112.99 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .93) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0010** tons/year | | | **0.0002** | lbs/hour |

**Acyrylonitrile**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6.33 | ppm HAP x | 53.06 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .861) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0318** tons/year | | | **0.0073** | lbs/hour |

**Benzene**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.91 | ppm HAP x | 78.11 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .861) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0141** tons/year | | | **0.0032** | lbs/hour |

**Carbondisulfide**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.58 | ppm HAP x | 76.13 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .861) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0042** tons/year | | | **0.0010** | lbs/hour |

**Carbontetrachloride**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.004 | ppm HAP x | 153.84 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .93) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0000** tons/year | | | **0.0000** | lbs/hour |

**Carbonylsulfide**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.49 | ppm HAP x | 60.07 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .861) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0028** tons/year | | | **0.0006** | lbs/hour |

**Chlorobenzene**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.25 | ppm HAP x | 112.56 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .93) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0013** tons/year | | | **0.0003** | lbs/hour |

**Chloroethane**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.25 | ppm HAP x | 64.52 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .93) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0038** tons/year | | | **0.0009** | lbs/hour |

**Dichlorobenzene**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.21 | ppm HAP x | 147 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .93) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0015** tons/year | | | **0.0003** | lbs/hour |

**Chloroform**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.03 | ppm HAP x | 119.39 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .93) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0002** tons/year | | | **0.0000** | lbs/hour |

**Dichloromethane**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14.3 | ppm HAP x | 84.94 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .93) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0580** tons/year | | | **0.0132** | lbs/hour |

**Ethylbenzene**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.61 | ppm HAP x | 106.16 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .861) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0464** tons/year | | | **0.0106** | lbs/hour |

**Hexane**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6.57 | ppm HAP x | 86.18 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .861) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0537** tons/year | | | **0.0123** | lbs/hour |

**Mercury** (Per AP-42 Table 2.4-3, control efficiency for mercury should be assumed to be 0)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000292 | ppm HAP x | 200.61 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - 0) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0000** tons/year | | | **0.0000** | lbs/hour |

**Methyl isobutyl ketone**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.87 | ppm HAP x | 100.16 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .861) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0178** tons/year | | | **0.0041** | lbs/hour |

**Perchloroethylene**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.73 | ppm HAP x | 165.83 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .93) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0295** tons/year | | | **0.0067** | lbs/hour |

**Toluene**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 39.3 | ppm HAP x | 92.13 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .861) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.3432** tons/year | | | **0.0784** | lbs/hour |

**Trichloroethylene**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.82 | ppm HAP x | 131.4 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .93) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0177** tons/year | | | **0.0040** | lbs/hour |

**VinylChloride**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7.34 | ppm HAP x | 62.5 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .93) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.0219** tons/year | | | **0.0050** | lbs/hour |

**Xylenes**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12.1 | ppm HAP x | 106.16 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - .861) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **0.1218** tons/year | | | **0.0278** | lbs/hour |

**HCl** (HCl is a product of combustion and therefore does not have a control efficiency)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 42 | ppm HAP x | 36.5 | mol. Wt. * | 60,000 scfh x | 8760 | hrs x | 1 T x | (1 - 0) = | | | = | | |
| 1,000,000 | | 385.4 | scf/lb-mole | | | year | 2000 lbs | | **1.0453** tons/year | | | **0.2387** | lbs/hour |

| | | | | |
|---|---|---|---|---|
| **TOTAL:** | **1.84** | **tons/year** | **0.42** | **lbs/hour** |