



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: March 5, 2007
RE: Clark-Floyd Landfill Gas Generating Station / 019-23898-00124
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 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 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 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-MOD.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
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March 5, 2007

Mr. Darrell W. Bayless
Clark-Floyd Landfill Gas Generating Station
P.O. Box 908
Bloomington, IN 47402

Re: Minor Source Modification No.:
019-23898-00124

Dear Mr. Bayless:

Clark-Floyd Landfill Gas Generating Station applied for a Minor Source Modification on November 15, 2006 for the construction of a landfill gas treatment system and a landfill gas-fueled engine/generation station to be collocated with Clark-Floyd Landfill Corporation. Clark-Floyd Landfill Gas Generating Station will be an on-site energy recovery plant purchasing landfill gas from Clark-Floyd Landfill Corporation. Clark-Floyd Landfill Corporation was issued Part 70 Renewal permit T019-18098-00097 on January 4, 2005. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

- (a) One (1) landfill gas treatment system, identified as LFGTS, approved for construction in 2007, consisting of facilities for filtering, dewatering and compressing landfill gas, with treated gas being routed to the engine/generators.
- (b) Two (2) landfill gas-fueled, four-stroke, lean burn, reciprocating internal combustion engine/generators, identified as EU-01 and EU-02, approved for construction in 2007, each with a maximum input capacity of 337.68 standard cubic feet per minute of landfill gas, each rated at 1,468 brake horsepower, with uncontrolled emissions exhausting to stacks S-1 and S-2, respectively.
- (c) Propane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour, consisting of one (1) furnace with a heat input capacity of 0.4 MMBtu per hour.
- (d) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing equal to or less than five-tenths percent (0.5%) sulfur by weight, consisting of one (1) furnace with a heat input capacity of 0.4 MMBtu per hour.
- (e) Equipment used exclusively for filling drums, pails, or other packaging containers with lubricating oils, waxes, and/or greases.
- (f) The following equipment related to manufacturing activities not resulting in the emission of HAPs, consisting of brazing equipment, cutting torches, soldering equipment, and welding equipment.
- (g) Closed loop heating and cooling systems.
- (h) Any of the following structural steel and bridge fabrication activities:
 - (1) Cutting two hundred thousand (200,000) linear feet or less of one (1) inch plate or equivalent.

- (2) Using eighty (80) tons or less of welding consumables.
- (i) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.
- (j) Heat exchanger cleaning and repair.
- (k) Process vessel degassing and cleaning to prepare for internal repairs.
- (l) Blowdown for the following: sight glass, boiler, cooling tower, compressors and/or pumps.
- (m) Filter or coalescer media changeout.

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.

The source may begin construction when the minor source modification has been issued. Operating conditions shall be incorporated into the pending Part 70 operating permit pursuant to 326 IAC 2-7-10.5(l)(3). Operation is not approved until the Part 70 permit has been issued.

Pursuant to Contract No. A305-5-65, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Mr. Stephen Treimel, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7902 to speak directly to Mr. Treimel. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204-2251, or call (800) 451-6027 and ask for Duane Van Laningham or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original signed by

Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

Attachments
ERG/ST

cc: File - Clark County
Clark County Health Department
Air Compliance Section Inspector - Ray Schick
Compliance Data Section
Administrative and Development
Technical Support and Modeling - Michele Boner
Billing, Licensing, and Training Section - Dan Stamatkin



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Part 70 MINOR SOURCE MODIFICATION OFFICE OF AIR QUALITY

Clark-Floyd Landfill Gas Generating Station, collocated with the Clark-Floyd Landfill Corporation 14304 State Road 60 Borden, Indiana 47106

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

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

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 MSOP under 326 IAC 2-6.1.

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

Minor Source Modification: 019-23898-00124	
Original signed by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: March 5, 2007

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SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary landfill gas treatment system and landfill gas-fueled engine/generation station.

Source Address:	14304 State Road 60, Borden, Indiana 47106
Mailing Address:	P.O. Box 908, Bloomington, Indiana 47402
General Source Phone Number:	(812) 876-0244
SIC Code:	4911
County Location:	Clark
Source Location Status:	Nonattainment for 8-hour ozone standard Nonattainment for PM 2.5 standard Attainment for all other criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD and Emission Offset Rules Major Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

This source consists of a municipal solid waste landfill with a collocated landfill gas generation station:

- (a) Clark-Floyd Landfill Corporation (Source ID # 019-00097), the primary operation, is located at 14304 State Road 60, Borden, Indiana, and
- (b) Clark-Floyd Landfill Gas Generating Station (Source ID # 019-00124), the supporting operation, is located at 14304 State Road 60, Borden, Indiana.

IDEM has determined that Clark-Floyd Landfill Corporation and Clark-Floyd Landfill Gas Generating Station are located on contiguous properties, have the same two-digit SIC code (Major Group 49: Electric, Gas, And Sanitary Services), and the Clark-Floyd Landfill Gas Generating Station is dependent wholly upon the output (landfill gas) of the Clark-Floyd Landfill Corporation for its operation. Therefore, Clark-Floyd Landfill Gas Generating Station and Clark-Floyd Landfill Corporation will be considered as one source, as defined by 326 IAC 2-7-1(22), based on this business relationship.

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

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

- (a) One (1) landfill gas treatment system, identified as LFGTS, approved for construction in 2007, consisting of facilities for filtering, dewatering and compressing landfill gas, with treated gas being routed to the engine/generators. Under 40 CFR 60, Subpart WWW and 40 CFR 63, Subpart AAAA, this landfill gas treatment system is considered an affected source.
- (b) Two (2) landfill gas-fueled, four-stroke, lean burn, reciprocating internal combustion engine/generators, identified as EU-1 and EU-2, approved for construction in 2007, each

with a maximum input capacity of 337.68 standard cubic feet per minute of landfill gas, each rated at 1,468 brake horsepower, with uncontrolled emissions exhausting to stacks S-1 and S-2, respectively. Under 40 CFR Part 63, Subpart ZZZZ, these engines are considered new stationary reciprocating internal combustion engines (RICE).

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

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

- (a) Propane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour, consisting of one (1) furnace with a heat input capacity of 0.4 MMBtu per hour.
- (b) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing equal to or less than five-tenths percent (0.5%) sulfur by weight, consisting of one (1) furnace with a heat input capacity of 0.4 MMBtu per hour.
- (c) Equipment used exclusively for filling drums, pails, or other packaging containers with lubricating oils, waxes, and/or greases.
- (d) The following equipment related to manufacturing activities not resulting in the emission of HAPs, consisting of brazing equipment, cutting torches, soldering equipment, and welding equipment.
- (e) Closed loop heating and cooling systems.
- (f) Any of the following structural steel and bridge fabrication activities:
 - (1) Cutting two hundred thousand (200,000) linear feet or less of one (1) inch plate or equivalent.
 - (2) Using eighty (80) tons or less of welding consumables.
- (g) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.
- (h) Heat exchanger cleaning and repair.
- (i) Process vessel degassing and cleaning to prepare for internal repairs.
- (j) Blowdown for the following: sight glass, boiler, cooling tower, compressors and/or pumps.
- (k) Filter or coalescer media changeout.

SECTION B GENERAL CONDITIONS

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

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

B.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.3 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit 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.

B.4 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.5 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 (PMPs) 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; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs 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

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM,

OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.6 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865

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

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

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

B.7 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12][40 CFR 72]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.8 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Opacity [326 IAC 5-1]

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

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

C.2 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).

Compliance Requirements [326 IAC 2-1.1-11]

C.3 Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.4 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

If required by Section D, all monitoring and record keeping requirements shall be implemented when operation begins. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

C.5 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

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

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM,

OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

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

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

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

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

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.8 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) 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. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) landfill gas treatment system, identified as LFGTS, approved for construction in 2007, consisting of facilities for filtering, dewatering and compressing landfill gas, with treated gas being routed to the engine/generators. Under 40 CFR 60, Subpart WWW and 40 CFR 63, Subpart AAAA, this landfill gas treatment system is considered an affected source.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

D.1.1 General Provisions Relating to New Source Performance Standards Under 40 CFR Part 60 [326 IAC 12-1] [40 CFR Part 60, Subpart A]

- (a) The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 60, Subpart WWW.
- (b) Pursuant to 40 CFR 60.7, the Permittee shall submit all of the required notifications and reports to:

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

D.1.2 New Source Performance Standard for Municipal Solid Waste Landfills Requirements [40 CFR Part 60, Subpart WWW] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart WWW, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart WWW, which are incorporated by reference as 326 IAC 12, for the landfill gas treatment system as specified as follows.

§ 60.750 Applicability, designation of affected facility, and delegation of authority.

(a) The provisions of this subpart apply to each municipal solid waste landfill that commenced construction, reconstruction or modification on or after May 30, 1991. Physical or operational changes made to an existing MSW landfill solely to comply with Subpart Cc of this part are not considered construction, reconstruction, or modification for the purposes of this section.

(b) The following authorities shall be retained by the Administrator and not transferred to the State: §60.754(a)(5).

§ 60.751 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act or in subpart A of this part.

Active collection system means a gas collection system that uses gas mover equipment.

Active landfill means a landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future.

Closed landfill means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under §60.7(a)(4). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed.

Closure means that point in time when a landfill becomes a closed landfill.

Commercial solid waste means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.

Controlled landfill means any landfill at which collection and control systems are required under this subpart as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled at the time a collection and control system design plan is submitted in compliance with §60.752(b)(2)(i).

Design capacity means the maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent permit issued by the State, local, or Tribal agency responsible for regulating the landfill, plus any in-place waste not accounted for in the most recent permit. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site specific density, which must be recalculated annually.

Disposal facility means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.

Emission rate cutoff means the threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the regulation is required.

Enclosed combustor means an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. An enclosed flare is considered an enclosed combustor.

Flare means an open combustor without enclosure or shroud.

Gas mover equipment means the equipment (i.e., fan, blower, compressor) used to transport landfill gas through the header system.

Household waste means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including, but not limited to, single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

Industrial solid waste means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the Resource Conservation and Recovery Act, parts 264 and 265 of this title. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste.

Interior well means any well or similar collection component located inside the perimeter of the landfill waste. A perimeter well located outside the landfilled waste is not an interior well.

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined under §257.2 of this title.

Lateral expansion means a horizontal expansion of the waste boundaries of an existing MSW landfill. A lateral expansion is not a modification unless it results in an increase in the design capacity of the landfill.

Modification means an increase in the permitted volume design capacity of the landfill by either horizontal or vertical expansion based on its permitted design capacity as of May 30, 1991. Modification does not occur until the owner or operator commences construction on the horizontal or vertical expansion.

Municipal solid waste landfill or MSW landfill means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (§257.2 of this title) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill, or a lateral expansion.

Municipal solid waste landfill emissions or MSW landfill emissions means gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.

NMOC means nonmethane organic compounds, as measured according to the provisions of §60.754.

Nondegradable waste means any waste that does not decompose through chemical breakdown or microbiological activity. Examples are, but are not limited to, concrete, municipal waste combustor ash, and metals.

Passive collection system means a gas collection system that solely uses positive pressure within the landfill to move the gas rather than using gas mover equipment.

Sludge means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

Solid waste means any garbage, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under 33 U.S.C. 1342, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C 2011 et seq.).

Sufficient density means any number, spacing, and combination of collection system components, including vertical wells, horizontal collectors, and surface collectors, necessary to maintain emission and migration control as determined by measures of performance set forth in this part.

Sufficient extraction rate means a rate sufficient to maintain a negative pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the life of the blower.

§ 60.752 Standards for air emissions from municipal solid waste landfills.

(b) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, shall either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in §60.754. The NMOC emission rate shall be recalculated annually, except as provided in §60.757(b)(1)(ii) of this subpart. The owner or operator of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to part 70 or 71 permitting requirements.

(2) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall:

(iii) Route all the collected gas to a control system that complies with the requirements in either paragraph (b)(2)(iii) (A), (B) or (C) of this section.

(A) An open flare designed and operated in accordance with §60.18 except as noted in §60.754(e);

(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in §60.754(d).

(1) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

(2) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in §60.756;

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of paragraph (b)(2)(iii) (A) or (B) of this section.

§ 60.753 Operational standards for collection and control systems.

Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of §60.752(b)(2)(ii) of this subpart shall:

(f) Operate the control or treatment system at all times when the collected gas is routed to the system.

§ 60.755 Compliance provisions.

(e) The provisions of this subpart 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 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

§ 60.758 Recordkeeping requirements.

(e) Except as provided in §60.752(b)(2)(i)(B), each owner or operator subject to the provisions of this subpart shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in §60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

National Emission Standards for Hazardous Air Pollutants Requirements [326 IAC 2-7-5(1)]

D.1.3 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

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- (a) Pursuant to 40 CFR 63.5925, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, for the landfill gas treatment system, as specified in Table 1 of 40 CFR Part 63, Subpart AAAA.
- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

D.1.4 National Emissions Standards for Hazardous Air Pollutants for Municipal Solid Waste Landfills: Requirements [40 CFR Part 63, Subpart AAAAA] [326 IAC 20-67]

Pursuant to 40 CFR Part 63, Subpart AAAAA, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart AAAAA, which are incorporated by reference as 326 IAC 20-67, for the landfill gas treatment system as specified as follows:

§ 63.1935 Am I subject to this subpart?

You are subject to this subpart if you meet the criteria in paragraph (a) or (b) of this section.

(a) You are subject to this subpart if you own or operate a MSW landfill that has accepted waste since November 8, 1987 or has additional capacity for waste deposition and meets any one of the three criteria in paragraphs (a)(1) through (3) of this section:

(1) Your MSW landfill is a major source as defined in 40 CFR 63.2 of subpart A.

§ 63.1940 What is the affected source of this subpart?

(a) An affected source of this subpart is a MSW landfill, as defined in §63.1990, that meets the criteria in §63.1935(a) or (b). The affected source includes the entire disposal facility in a contiguous geographic space where household waste is placed in or on land, including any portion of the MSW landfill operated as a bioreactor.

(b) A new affected source of this subpart is an affected source that commenced construction or reconstruction after November 7, 2000. An affected source is reconstructed if it meets the definition of reconstruction in 40 CFR 63.2 of subpart A.

(c) An affected source of this subpart is existing if it is not new.

§ 63.1945 When do I have to comply with this subpart?

(a) If your landfill is a new affected source, you must comply with this subpart by January 16, 2003 or at the time you begin operating, whichever is last.

(c) If your landfill is a new affected source and is a major source or is collocated with a major source, you must comply with the requirements in §§63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW.

§ 63.1950 When am I no longer required to comply with this subpart?

You are no longer required to comply with the requirements of this subpart when you are no longer required to apply controls as specified in 40 CFR 60.752(b)(2)(v) of subpart WWW, or the Federal plan or EPA approved and effective State plan or tribal plan that implements 40 CFR part 60, subpart Cc, whichever applies to your landfill.

Standards

§ 63.1955 What requirements must I meet?

(a) You must fulfill one of the requirements in paragraph (a)(1) or (2) of this section, whichever is applicable:

(1) Comply with the requirements of 40 CFR part 60, subpart WWW.

(b) If you are required by 40 CFR 60.752(b)(2) of subpart WWW, the Federal plan, or an EPA approved and effective State or tribal plan to install a collection and control system, you must comply with the requirements in §§63.1960 through 63.1985 and with the general provisions of this part specified in table 1 of this subpart.

(c) For approval of collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, you must follow the procedures in 40 CFR 60.752(b)(2). If alternatives have already been

approved under 40 CFR part 60 subpart WWW or the Federal plan, or EPA approved and effective State or tribal plan, these alternatives can be used to comply with this subpart, except that all affected sources must comply with the SSM requirements in Subpart A of this part as specified in Table 1 of this subpart and all affected sources must submit compliance reports every 6 months as specified in §63.1980(a) and (b), including information on all deviations that occurred during the 6-month reporting period. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3 hour monitoring block average.

General and Continuing Compliance Requirements

§ 63.1960 How is compliance determined?

Compliance is determined in the same way it is determined for 40 CFR part 60, subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data, collected under 40 CFR 60.756(b)(1), (c)(1), and (d) of subpart WWW, are used to demonstrate compliance with the operating conditions for control systems. If a deviation occurs, you have failed to meet the control device operating conditions described in this subpart and have deviated from the requirements of this subpart. Finally, you must develop a written SSM plan according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site. Failure to write or maintain a copy of the SSM plan is a deviation from the requirements of this subpart.

§ 63.1965 What is a deviation?

A deviation is defined in §63.1990. For the purposes of the landfill monitoring and SSM plan requirements, deviations include the items in paragraphs (a) through (c) of this section.

(b) A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour.

(c) A deviation occurs when a SSM plan is not developed or maintained on site.

§ 63.1975 How do I calculate the 3-hour block average used to demonstrate compliance?

Averages are calculated in the same way as they are calculated in 40 CFR part 60, subpart WWW, except that the data collected during the events listed in paragraphs (a), (b), (c), and (d) of this section are not to be included in any average computed under this subpart:

(a) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments.

(b) Startups.

(c) Shutdowns.

(d) Malfunctions.

Notifications, Records, and Reports

§ 63.1980 What records and reports must I keep and submit?

(a) Keep records and reports as specified in 40 CFR part 60, subpart WWW, or in the Federal plan, EPA approved State plan or tribal plan that implements 40 CFR part 60, subpart Cc, whichever applies to your landfill, with one exception: You must submit the annual report described in 40 CFR 60.757(f) every 6 months.

(b) You must also keep records and reports as specified in the general provisions of 40 CFR part 60 and this part as shown in Table 1 of this subpart. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports.

Other Requirements and Information

§ 63.1985 Who enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or tribal agency. If the EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency as well as the U.S. EPA has the authority to implement and enforce this subpart. Contact the applicable EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are as follows. Approval of alternatives to the standards in §63.1955. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart.

§ 63.1990 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, 40 CFR part 60, subparts A, Cc, and WWW; 40 CFR part 62, subpart GGG, and subpart A of this part, and this section that follows:

Bioreactor means a MSW landfill or portion of a MSW landfill where any liquid other than leachate (leachate includes landfill gas condensate) is added in a controlled fashion into the waste mass (often in combination with recirculating leachate) to reach a minimum average moisture content of at least 40 percent by weight to accelerate or enhance the anaerobic (without oxygen) biodegradation of the waste.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including, but not limited to, any emissions limitation (including any operating limit) or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation, (including any operating limit), or work practice standard in this subpart during SSM, regardless of whether or not such failure is permitted by this subpart.

Emissions limitation means any emission limit, opacity limit, operating limit, or visible emissions limit.

EPA approved State plan means a State plan that EPA has approved based on the requirements in 40 CFR part 60, subpart B to implement and enforce 40 CFR part 60, subpart Cc. An approved State plan becomes effective on the date specified in the notice published in the Federal Register announcing EPA's approval.

Federal plan means the EPA plan to implement 40 CFR part 60, subpart Cc for existing MSW landfills located in States and Indian country where State plans or tribal plans are not currently in effect. On the effective date of an EPA approved State or tribal plan, the Federal plan no longer applies. The Federal plan is found at 40 CFR part 62, subpart GGG.

Municipal solid waste landfill or MSW landfill means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. A municipal solid waste landfill may also receive other types of RCRA Subtitle D wastes (see §257.2 of this chapter) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of a municipal solid waste landfill may be separated by access roads. A municipal solid waste landfill may be publicly or privately owned. A municipal solid waste landfill may be a new municipal

solid waste landfill, an existing municipal solid waste landfill, or a lateral expansion.

Tribal plan means a plan submitted by a tribal authority pursuant to 40 CFR parts 9, 35, 49, 50, and 81 to implement and enforce 40 CFR part 60, subpart Cc.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof that is promulgated pursuant to section 112(h) of the Clean Air Act.

D.1.5 One Time Deadlines Relating to NSPS (40 CFR 60, Subpart WWW) and NESHAP (40 CFR 63, Subpart AAAA)

- (a) Pursuant to 40 CFR 60.7, the Permittee shall submit a notification of the date of construction (or reconstruction as defined under §60.15) of an affected facility postmarked no later than 30 days after such date.
- (b) Pursuant to 40 CFR 60.7, the Permittee shall submit a notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.
- (c) Pursuant to 40 CFR 63.1645 and 40 CFR 63.1655, the Permittee shall comply with the applicable requirements of 40 CFR 60, Subpart WWW and 40 CFR 63, Subpart AAAA upon startup.
- (d) Pursuant to 40 CFR 63.10(d)(5), the Permittee shall submit semi-annual Startup, Shutdown and Malfunction reports on January 30 and July 30 of each calendar year.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (b) Two (2) landfill gas-fueled, four-stroke, lean burn, reciprocating internal combustion engine/generators, identified as EU-1 and EU-2, approved for construction in 2007, each with a maximum input capacity of 337.68 standard cubic feet per minute of landfill gas, each rated at 1,468 brake horsepower, with uncontrolled emissions exhausting to stacks S-1 and S-2, respectively. Under 40 CFR Part 63, Subpart ZZZZ, these engines are considered new stationary reciprocating internal combustion engines (RICE).

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

National Emission Standards for Hazardous Air Pollutants Requirements [326 IAC 2-7-5(1)]

D.2.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants Under 40 CFR Part 63 [326 IAC 20] [40 CFR Part 63, Subpart A]

- (a) The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20, apply to the landfill gas-fueled engine/generators (EU-1 and EU-2) except when otherwise specified in 40 CFR Part 63, Subpart ZZZZ.
- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all of the required notifications and reports to:

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

D.2.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines Requirements [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20-82]

Pursuant to 40 CFR Part 63, Subpart ZZZZ, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart ZZZZ, which are incorporated by reference as 326 IAC 20-82, for the landfill gas-fueled engine/generators (EU-1 and EU-2) as specified as follows.

§ 63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

§ 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) Affected source. An affected source is any existing, new, or reconstructed stationary RICE with a site-rating of more than 500 brake horsepower located at a major source of HAP emissions, excluding

stationary RICE being tested at a stationary RICE test cell/stand.

(2) New stationary RICE. A stationary RICE is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(b) Stationary RICE subject to limited requirements.

(2) A new or reconstructed stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(d) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

§ 63.6595 When do I have to comply with this subpart?

(c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

§ 63.6625 What are my monitoring, installation, operation, and maintenance requirements?

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

Notifications, Reports, and Records

§ 63.6645 What notifications must I submit and when?

(d) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE).

§ 63.6650 What reports must I submit and when?

(g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.

(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.

(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(3) Any problems or errors suspected with the meters.

§ 63.6655 What records must I keep?

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.

§ 63.6660 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off-site for the remaining 3 years.

Other Requirements and Information

§ 63.6665 What parts of the General Provisions apply to me?

Table 8 of this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate an existing 2SLB, an existing 4SLB stationary RICE, an existing CI stationary RICE, an existing stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE, you do not need to comply with any of the requirements of the General Provisions. If you own or operate a new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE, you do not need to comply with the requirements in the General Provisions except for the initial notification requirements.

§ 63.6670 Who implements and enforces this subpart?

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are:

(1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

(5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

§ 63.6675 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

Area source means any stationary source of HAP that is not a major source as defined in part 63.

Associated equipment as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

CAA means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Public Law 101-549, 104 Stat. 2399).

Compression ignition engine means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition, including diesel engines, dual-fuel engines, and engines that are not spark ignition.

Custody transfer means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless of whether or not such failure is permitted by this subpart.
- (4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

Diesel engine means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO₂.

Dual-fuel engine means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

Emergency stationary RICE means any stationary RICE that operates in an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc. Emergency stationary RICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance. Emergency stationary RICE may also operate an additional 50 hours per year in non-emergency situations.

Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Gaseous fuel means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes "rich" glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The "lean" glycol is then recycled.

Hazardous air pollutants (HAP) means any air pollutants listed in or pursuant to section 112(b) of the CAA.

ISO standard day conditions means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO₂.

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Limited use stationary RICE means any stationary RICE that operates less than 100 hours per year.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

Liquid fuel means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

Major Source, as used in this subpart, shall have the same meaning as in §63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. May be field or pipeline quality.

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NOX) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NOX, CO, and volatile organic compounds (VOC) into CO₂, nitrogen, and water.

Oil and gas production facility as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (i.e., remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

Oxidation catalyst means an add-on catalytic control device that controls CO and VOC by oxidation.

Peaking unit or engine means any standby engine intended for use during periods of high demand that are not emergencies.

Percent load means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in §63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to §63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to §63.1270(a)(2).

Production field facility means those oil and gas production facilities located prior to the point of custody transfer.

Production well means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C₃H₈.

Responsible official means responsible official as defined in 40 CFR 70.2.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NOX (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

Site-rated HP means the maximum manufacturer's design capacity at engine site conditions.

Spark ignition engine means a type of engine in which a compressed air/fuel mixture is ignited by a timed electric spark generated by a spark plug.

Stationary reciprocating internal combustion engine (RICE) means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

Stationary RICE test cell/stand means an engine test cell/stand, as defined in subpart P P P P P of this part, that tests stationary RICE.

Stoichiometric means the theoretical air-to-fuel ratio required for complete combustion.

Storage vessel with the potential for flash emissions means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

Subpart means 40 CFR part 63, subpart Z Z Z Z.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

Two-stroke engine means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

Table 7 to Subpart Z Z Z Z of Part 63—Requirements for Reports

[As stated in § 63.6650, you must comply with the following requirements for reports]

You must submit a(n)	The report must contain . . .	You must submit the report . . .
3. Report.....	a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and c. Any problems or errors suspected with the meters.	i. Annually, according to the requirements in § 63.6650. i. See item 3.a.i.

D.2.3 One Time Deadlines Relating to NESHAP (40 CFR 63, Subpart Z Z Z Z)

- (a) Pursuant to 40 CFR 63.6(b)(2), the Permittee shall comply with the applicable requirements of 40 CFR 63, Subpart Z Z Z Z upon startup.
- (b) Pursuant to 40 CFR 63.9(b)(4)(v) , the Permittee shall submit the Initial Notification of the actual date of initial startup of an affected facility as required by 40 CFR 63.6645(d) postmarked within 15 days after such date.

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

Source Name: Clark-Floyd Landfill Gas Generating Station
Source Address: 14304 State Road 60, Borden, Indiana 47106
Mailing Address: P.O. Box 908, Bloomington, Indiana 47402
Permit No.: 019-23898-00124

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

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

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Clark-Floyd Landfill Gas Generating Station
Source Address: 14304 State Road 60, Borden, Indiana 47106
Mailing Address: P.O. Box 908, Bloomington, Indiana 47402
Permit No.: 019-23898-00124

This form consists of 2 pages

Page 1 of 2

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

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION
 PART 70 OPERATING PERMIT
 QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Clark-Floyd Landfill Gas Generating Station
 Source Address: 14304 State Road 60, Borden, Indiana 47106
 Mailing Address: P.O. Box 908, Bloomington, Indiana 47402
 Permit No.: 019-23898-00124

Months: _____ to _____ Year: _____

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

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**Indiana Department of Environmental Management
Office of Air Quality**

**Technical Support Document (TSD)
for a Minor Source Modification and Part 70 Operating Permit**

Source Description and Location

Source Name:	Clark-Floyd Landfill Gas Generating Station, collocated with the Clark-Floyd Landfill Corporation
Source Location:	14304 State Road 60, Borden, Indiana 47106
County:	Clark
SIC Code:	4911
Minor Source Modification No.:	MSM019-23898-00124
Part 70 Permit No.:	T019-24153-00124
Permit Reviewer:	ERG/ST

Source Definition

This source consists of a municipal solid waste landfill with a collocated landfill gas generation station:

- (a) Clark-Floyd Landfill Corporation (Source ID # 019-00097), the primary operation, is located at 14304 State Road 60, Borden, Indiana, and
- (b) Clark-Floyd Landfill Gas Generating Station (Source ID # 019-00124), the supporting operation, is located at 14304 State Road 60, Borden, Indiana.

IDEM has determined that Clark-Floyd Landfill Corporation and Clark-Floyd Landfill Gas Generating Station are located on contiguous properties, have the same two-digit SIC code (Major Group 49: Electric, Gas, And Sanitary Services), and the Clark-Floyd Landfill Gas Generating Station is dependent wholly upon the output (landfill gas) of the Clark-Floyd Landfill Corporation for its operation. Therefore, Clark-Floyd Landfill Gas Generating Station and Clark-Floyd Landfill Corporation will be considered as one source, as defined by 326 IAC 2-7-1(22), based on this business relationship.

History

IDEM, OAQ has reviewed a permit application from Clark-Floyd Landfill Gas Generating Station, submitted on November 15, 2006, relating to the construction and operation of a landfill gas treatment system, two (2) landfill gas-fueled engine/generators, and insignificant activities to be collocated with Clark-Floyd Landfill Corporation.

Note: This landfill gas treatment system and landfill gas-fueled engine/generation station will be collocated with the Clark-Floyd Landfill as described in the source definition section above. Clark-Floyd Landfill Corporation received Part 70 Renewal permit T019-18098-00097 on January 4, 2005. The scope of this project will not affect the capacity or throughput of any other operations at Clark-Floyd Landfill.

In lieu of a Significant Permit Modification, and for administrative purposes, a separate Part 70 Operating Permit will be issued to Clark-Floyd Landfill Gas Generating Station, which is collocated with the Clark-Floyd Landfill Corporation.

Existing Approvals

There have been no previous approvals issued solely to Clark-Floyd Landfill Gas Generating Station. However, Part 70 renewal permit T019-18098-00097 was issued to Clark-Floyd Landfill Corporation on January 4, 2005.

County Attainment Status

The source is located in Clark County.

Pollutant	Status
PM10	Attainment
PM2.5	Nonattainment
SO ₂	Attainment
NO _x	Attainment
8-hour Ozone	Nonattainment
CO	Attainment
Lead	Attainment

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

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standard. Clark County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Clark County as nonattainment for PM2.5. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM10 emissions as a surrogate for PM2.5 emissions pursuant to the requirements of Emission Offset, 326 IAC 2-3.
- (c) Clark County has been classified as attainment or unclassifiable in Indiana for SO₂, CO, NO₂, and Lead (Pb). Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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	1.33
PM10	1.33
SO ₂	3.74
VOC	65.1
CO	95.4
NO _x	17.5
Single HAP	8.95
Combination HAPs	30.6

Note: these figures are taken from Appendix A to the TSD for Part 70 Operating Permit T019-18098-00097, issued on January 4, 2005.

- (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) The potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (d) Fugitive Emissions
Since this type of operation is not in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed an application, submitted by Clark-Floyd Landfill Gas Generating Station on November 15, 2006, relating to the construction and operation of a landfill gas treatment system and a landfill gas-fueled engine/generation station. This source is collocated with and will purchase landfill gas from the Clark-Floyd Landfill Corporation. The following is a list of the proposed emissions units and pollution control devices:

- a) One (1) landfill gas treatment system, identified as LFGTS, approved for construction in 2007, consisting of facilities for filtering, dewatering and compressing landfill gas, with treated gas being routed to the engine/generators. Under 40 CFR 60, Subpart WWW and 40 CFR 63, Subpart AAAA, this landfill gas treatment system is considered an affected source.
- (b) Two (2) landfill gas-fueled, four-stroke, lean burn, reciprocating internal combustion engine/generators, identified as EU-1 and EU-2, approved for construction in 2007, each with a maximum input capacity of 337.68 standard cubic feet per minute of landfill gas, each rated at 1,468 brake horsepower, with uncontrolled emissions exhausting to stacks S-1 and S-2, respectively. Under 40 CFR Part 63, Subpart ZZZZ, these engines are considered new stationary reciprocating internal combustion engines (RICE).

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

- (a) Propane or liquified petroleum gas or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour.
- (b) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing equal to or less than five-tenths percent (0.5%) sulfur by weight.
- (c) Equipment used exclusively for filling drums, pails, or other packaging containers with lubricating oils, waxes, and/or greases.
- (d) The following equipment related to manufacturing activities not resulting in the emission of HAPs, consisting of brazing equipment, cutting torches, soldering equipment, and welding equipment.
- (e) Closed loop heating and cooling systems.
- (f) Any of the following structural steel and bridge fabrication activities:

- (1) Cutting two hundred thousand (200,000) linear feet or less of one (1) inch plate or equivalent.
- (2) Using eighty (80) tons or less of welding consumables.
- (g) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.
- (h) Heat exchanger cleaning and repair.
- (i) Process vessel degassing and cleaning to prepare for internal repairs.
- (j) Blowdown for the following: sight glass, boiler, cooling tower, compressors and/or pumps.
- (k) Filter or coalescer media changeout.

Enforcement Issues

There are no pending enforcement actions regarding this proposed modification.

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 through 5).

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	4.29
PM10	4.31
SO ₂	2.29
VOC	0.69
CO	41.8
NO _x	22.7
Single HAP (hydrogen chloride)	0.72
Total HAPs	1.28

This source modification is subject to 326 IAC 2-7-10.5(d)(3) because this modification results in an increase in potential to emit of NO_x less than 25 tons per year and equal to or greater than ten (10) tons per year, and an increase in potential to emit of CO less than 100 tons per year and equal to or greater than 25 tons per year.

In lieu of a Significant Permit Modification, and for administrative purposes, a separate Part 70 Operating Permit will be issued to Clark-Floyd Landfill Gas Generating Station, which is collocated with the Clark-Floyd Landfill Corporation.

Permit Level Determination – PSD or 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 source modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Emission Unit	Potential to Emit (tons/year)						
	PM	PM10	SO ₂	NO _x	CO	VOC	HAPs
Landfill Gas Engine/Generators	4.26	4.26	1.40	22.2	41.7	0.67	1.28
Propane Combustion	0.01	0.01	negligible	0.27	0.04	0.01	negligible
Fuel Oil Combustion	0.03	0.04	0.89	0.25	0.06	0.01	negligible
Total Emissions From Modification	4.29	4.31	2.29	22.7	41.8	0.69	1.28
PSD/Emission Offset Thresholds	25	15	40	40	100	40	NA
Total Emissions From Existing Source	1.33	1.33	3.74	17.5	95.4	65.1	30.6
Total Emissions From Entire Source After This Modification	5.62	5.64	6.03	40.2	137	65.8	31.9

- (a) This modification to an existing minor stationary source is not major because the emissions increase for each attainment criteria pollutant is less than the PSD significant levels. Therefore, the provisions of 326 IAC 2-2, PSD do not apply.
- (b) Clark County has been designated as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled "Implementation of New Source Review Requirements in PM2.5 Nonattainment Areas" authored by Steve Page, Director of OAQPS, until EPA promulgates the PM2.5 major NSR regulations, states should assume that a major stationary source's PM10 emissions represent PM2.5 emissions. IDEM will use the PM10 nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM2.5 NAAQS. A significant emissions increase would be a net emissions increase or the potential of fifteen (15) tons per year or greater of PM10. Clark-Floyd Landfill Gas Generating Station has the potential to emit from the modification less than fifteen (15) tons per year of PM10. Therefore, assuming that PM10 emissions represent PM2.5 emissions, the provisions of 326 IAC 2-3 do not apply for PM2.5.
- (c) This modification to an existing minor stationary source is not major because the emissions increase for each nonattainment criteria pollutant (NOx and VOC) is less than the Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Federal Rule Applicability Determination

- (a) The requirements of Compliance Assurance Monitoring (40 CFR 64) are not included in this permit for the two (2) landfill gas-fired engine/generators (EU-1 and EU-2) because neither of these facilities has the potential to emit greater than 100 tons per year of any regulated pollutant prior to controls.
- (b) The landfill (Clark-Floyd Landfill Corporation) is subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.30c, Subpart Cc Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills) because it commenced construction, reconstruction, or modification, or began accepting waste before May 30, 1991. However, this source is also subject to the requirements of state

rule 326 IAC 8-8 (Municipal Solid Waste Landfills Located in Clark, Floyd, Lake and Porter Counties) which in-turn makes this source subject to the requirements of New Source Performance Standards for Municipal Solid Waste Landfills (326 IAC 12, 40 CFR 60.750, Subpart WWW). Therefore compliance with the requirements of 40 CFR 60.750, Subpart WWW will also satisfy the requirements of 40 CFR 60.30c, Subpart Cc.

This landfill is subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 14, (40 CFR 60, Subpart AAAA) which incorporates by reference NSPS Subpart WWW requirements. Pursuant to 40 CFR 60.752(b)(2)(iii), the Permittee of the landfill (Clark-Floyd Landfill Corporation) is required to route all collected landfill gas to a control system that complies with the requirements in either paragraph (b)(2)(iii)(A), (B), or (C) of 40 CFR 60.752.

In a notice of proposed rulemaking published in the Federal Register [67 FR 36480] on May 22, 2002, the U.S. EPA (EPA) proposed to amend 40 CFR 60.752 of Subpart WWW to allow landfill owners/operators to transfer untreated landfill gas to another entity for control or treatment, provided the transferee certifies to EPA (and provides a copy to the landfill owner/operator) that it will control or treat the landfill gas in accordance with the Landfills NSPS provisions.

In a notice of proposed rulemaking published in the Federal Register [71 FR 53272] on September 8, 2006, the EPA further clarified the compliance responsibilities where multiple entities own/operate the landfill and the associated landfill gas collection, control, or treatment systems. Specifically, EPA proposed that the landfill owners/operators would be responsible for complying with the requirements of the Landfills NSPS that apply to the landfills and any portion of the collection, control, or treatment system that they own or operate. The owners/operators of the landfill gas collection, control, or treatment systems would be responsible for complying with the requirements of the Landfills NSPS that apply to the portion of the landfill gas collection, control, or treatment system that they own or operate. In addition, if another entity owns/operates the gas collection, control, or treatment system used to comply with the applicable requirements of this subpart and for any reason (e.g., bankruptcy, abandonment of operation) that entity ceases to accept the landfill gas, responsibility for complying with all applicable requirements to which that entity was subject under this subpart shall immediately apply to, and be binding on, the landfill owner/operator.

Therefore, for the portion of the landfill gas that is sent to another entity for control or treatment, the Permittee of the landfill (Clark-Floyd Landfill Corporation) has fulfilled its requirements under 40 CFR 60.752(b)(2)(iii). The requirements of 40 CFR 60, Subpart WWW and 40 CFR 63, Subpart AAAA currently in the Clark-Floyd Landfill Corporation's Part 70 Operating Permit (T019-18098-00097, issued on January 4, 2005) remain in effect.

- (c) The landfill gas treatment system (LFGTS) is subject to the requirements of 40 CFR 60, Subpart WWW because this facility was approved to construct after May 30, 1991 and treats landfill gas pursuant to 40 CFR 60.752(b)(2)(iii)(C). The Permittee of this landfill gas treatment and landfill gas-fueled engine/generation station (Clark-Floyd Landfill Gas Generating Station) operates an energy recovery plant in which landfill gas is treated prior to use in the landfill gas-fueled engine/generators. The Clark-Floyd Landfill Corporation has contracted to route the untreated landfill gas to the Clark-Floyd Landfill Gas Generating Station, and the Clark-Floyd Landfill Gas Generating Station has chosen to treat the portion of landfill gas that is used in the engine/generators, pursuant to 40 CFR 60.752(b)(2)(iii)(C).

In a notice of proposed rulemaking published in the Federal Register [67 FR 36480] on May 22, 2002, the EPA proposed to amend 40 CFR 60.752 of subpart WWW to allow landfill owners/operators to transfer untreated landfill gas to another entity for control or treatment, provided the transferee certifies to EPA (and provides a copy to the landfill owner/ operator) that it will control or treat the landfill gas in accordance with the Landfills NSPS provisions. EPA proposed to amend 40 CFR 60.751 of subpart WWW by adding a definition for treatment system. The May 23, 2002 proposed definition for treatment

system specified that the system must filter, de-water, and compress landfill gas. EPA proposed to amend 40 CFR 60.752(b)(2)(iii)(C) of subpart WWW to specify that to achieve compliance with this section, landfill gas must be processed in a system that meets the treatment system definition in the proposed amendment. EPA also proposed to amend this section to clarify that venting of treated landfill gas to the ambient air is not permitted.

In a notice of proposed rulemaking published in the Federal Register [71 FR 53272] on September 8, 2006, EPA refined the May 23, 2002 proposed definitions of "treated landfill gas" and clarified the monitoring requirements for treatment systems.

The landfill gas treatment system (LFGTS) is subject to the following portions of 40 CFR 60, Subpart WWW. Non applicable portions of the NSPS will not be included in the permit.

40 CFR 60.750(a), (b)
40 CFR 60.751
40 CFR 60.752(b)(2)(iii)(A), (B), and (C)
40 CFR 60.753(f)
40 CFR 60.755(e)
40 CFR 60.758(e)

The provisions of 40 CFR 60, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart WWW.

- (d) The requirements of the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII) are not included in this permit for the landfill gas-fueled engine generators (EU-1 and EU-2) because these engines are not "stationary compression ignition (CI) internal combustion engines (ICE)" as that term is defined in 40 CFR 60.4219.
- (e) The landfill gas treatment system (LFGTS) is subject to the requirements of the National Emissions Standards for Hazardous Air Pollutants for Municipal Solid Waste Landfills (40 CFR 63, Subpart AAAA, 326 IAC 20-67) because this facility is collocated with a major source, as defined in 40 CFR 63, Subpart A, and the requirements of 40 CFR 60, Subpart WWW apply to this facility. The landfill gas treatment system (LFGTS) is subject to the following portions of 40 CFR 63, Subpart AAAA. Non applicable portions of the NESHAP will not be included in the permit.

40 CFR 63.1935(a)(1)
40 CFR 63.1940(a), (b), (c)
40 CFR 63.1945(a), (c)
40 CFR 63.1950
40 CFR 63.1955(a)(1), (b), (c)
40 CFR 63.1960
40 CFR 63.1965(b), (c)
40 CFR 63.1975
40 CFR 63.1980(a), (b)
40 CFR 63.1985
40 CFR 63.1990

The provisions of 40 CFR 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-67-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63, Subpart AAAA.

- (f) The requirements of 40 CFR 60, Subpart WWW and 40 CFR 63, Subpart AAAA, are not included in this permit for the two (2) landfill gas-fueled engine/generators (EU-1 and EU-2). These engine/generators use treated landfill gas as fuel. 40 CFR 60, Subpart WWW and, by extension, 40 CFR 63, Subpart AAAA, do not regulate devices that use landfill gas after it is treated pursuant to 40 CFR 60.752(b)(2)(iii)(C). In a determination letter

dated December 20, 2006, the EPA determined that once the landfill gas is treated, the facilities that buy or use the treated gas have no further obligations under the NSPS (Subpart WWW) and the NESHAP (Subpart AAAA). Therefore, the landfill gas-fueled engine generators are not subject to the requirements of 40 CFR 60, Subpart WWW or 40 CFR 63, Subpart AAAA.

- (g) The source is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) (40 CFR 63, Subpart ZZZZ). Pursuant to 40 CFR 63.6585 and 40 CFR 63.6590(a), the landfill gas-fueled engine generators (EU-1 and EU-2) are affected sources subject to this subpart because they are new stationary reciprocating internal combustion engines (RICE) with a site rating of greater than 500 brake horsepower located at a major source of HAP emissions. These engines are new stationary RICE which combust landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.

The landfill gas-fueled engine generators (EU-1 and EU-2) are subject to the following portions of 40 CFR 63, Subpart ZZZZ. Non applicable portions of the NESHAP will not be included in the permit.

40 CFR 63.6585
40 CFR 63.6590(a)(2), (b)(2)
40 CFR 63.6595(c)
40 CFR 63.6625(c)
40 CFR 63.6645(d)
40 CFR 63.6650(g)
40 CFR 63.6655(c)
40 CFR 63.6660
40 CFR 63.6665
40 CFR 63.6670
40 CFR 63.6675
Table 7 to 40 CFR 63, Subpart ZZZZ

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

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.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this landfill gas treatment system and a landfill gas-fueled engine/generation station 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, the requirements of 326 IAC 2-4.1 do not apply to this modification.

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 is due no later than July 1, 2009, 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. The provisions of 326 IAC 2-6 shall be included in the pending Part 70 Permit No.: T019-24153-00124.

326 IAC 5-1 (Opacity Limitations)

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

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

326 IAC 6-4 (Fugitive Dust Emissions)

The source is subject to 326 IAC 6-4 (Fugitive Dust Emissions) because the source maintains paved and unpaved roads and parking lots with public access. Pursuant to 326 IAC 6-4, the Permittee shall not generate fugitive dust to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

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

The source is located in Clark County. This source is located in the area listed in 326 IAC 6-5-1(a)(2)(A). However, the fugitive particulate emissions from the paved and unpaved roads and parking lots are negligible. Pursuant to 326 IAC 6-5-7(d), this source is not subject to the requirements of 326 IAC 6-5.

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)

This source is located in Clark County, but the source is not specifically listed in 326 IAC 6.5-2. This source has a potential to emit of particulate less than 100 tons per year and actual emissions of particulate less than ten (10) tons per year. Therefore, the requirements of 26 IAC 6.5 do not apply to the emission units at this source.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)

This source is not subject to 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties) because the source is located in Clark County and the potential to emit of volatile organic compounds (VOC) from the entire source is less than one hundred (100) tons per year.

326 IAC 10-1 (Nitrogen Oxides Control in Clark and Floyd Counties)

This source is not subject to 326 IAC 10-1 (Nitrogen Oxides Control in Clark and Floyd Counties) because no individual facility has potential emissions of NOx above forty (40) tons per year and the entire source has potential emissions of NOx of less than one hundred (100) tons per year.

State Rule Applicability – Landfill Gas Treatment System

326 IAC 7-1.1 (Sulfur Dioxide Limitations)

The landfill gas treatment system does not have the potential to emit greater than twenty-five (25) tons per year or ten (10) pounds per hour of sulfur dioxide. Therefore, the requirements of 326 IAC 7-1.1 do not apply to the landfill gas treatment system.

326 IAC 8-8 (Municipal Solid Waste Landfills Located in Clark, Floyd, Lake, and Porter Counties)

The landfill gas treatment system is not a "municipal solid waste landfill", as that term is defined in 40 CFR 60.751. Although the landfill gas treatment system has applicable requirements under 40 CFR 60, Subpart WWW, the requirements of 326 IAC 8-8 do not apply, pursuant to 326 IAC 8-1-1. See the *Federal Rule Applicability* section and the *State Rule Applicability – Landfill Gas Treatment System 326 IAC 12* section of this document for a full discussion.

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

This source is not among the listed source categories in 326 IAC 9-1-2. Therefore, the requirements of 326 IAC 9-1-2 are not applicable to the landfill gas treatment system.

326 IAC 12 (New Source Performance Standards)

The landfill gas treatment system is subject to the requirements of 326 IAC 12 because it has applicable requirements under 40 CFR 60, Subpart WWW. 326 IAC 12 incorporates 40 CFR 60, Subpart WWW by reference. The Permittee shall comply with the requirements of 326 IAC 12 for the landfill gas treatment system by complying with the applicable requirements of 40 CFR 60, Subpart WWW. See the *Federal Rule Applicability* section of this document for a full discussion.

State Rule Applicability – Engine/Generators

326 IAC 7-1.1 (Sulfur Dioxide Limitations)

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

326 IAC 8-8 (Municipal Solid Waste Landfills Located in Clark, Floyd, Lake, and Porter Counties)

The engine/generators are not a "municipal solid waste landfill", as that term is defined in 40 CFR 60.751. The engine/generators have no applicable requirements under 326 IAC 8-8 because they have no applicable requirements under 40 CFR 60, Subpart WWW. The engine/generators use treated landfill gas. See the *Federal Rule Applicability* section of this document for a full discussion.

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

This source is not among the listed source categories in 326 IAC 9-1-2. Therefore, the requirements of 326 IAC 9-1-2 are not applicable to the engine/generators.

326 IAC 12 (New Source Performance Standards)

The engine/generators have no applicable requirements under 326 IAC 12 because they have no applicable requirements under 40 CFR 60, Subpart WWW. The engine/generators use treated landfill gas. See the *Federal Rule Applicability* section of this document for a full discussion.

State Rule Applicability – Insignificant Heaters

326 IAC 6-2 (Particulate Emissions from Indirect Heating)

The propane-fired and fuel oil-fired space heaters are not subject to the requirements of 326 IAC 6-2 because these facilities are not sources of indirect heating.

State Rule Applicability – Insignificant Brazing Equipment, Cutting Torches, Soldering Equipment, Welding Equipment, and Structural Steel and Bridge Fabrication Activities

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

The insignificant cutting torches, welding operations and structural steel and bridge fabrication activities consume less than 625 pounds of rod or wire per day and cut less than three thousand four hundred (3400) inches per hour of stock one (1) inch thickness or less. Pursuant to 326 IAC 6-3-1(b)(9) – (10), the cutting and welding operations and the structural steel and bridge fabrication activities are not subject to the requirements of 326 IAC 6-3-2.

Testing Requirements

There are no testing requirements for the engine/generators because the major pollutants released by the engine/generators are carbon monoxide (CO) and volatile organic compounds (VOC) and the emission factors are from AP 42.

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.

1. The following compliance determination and compliance monitoring requirements from 40 CFR 60, Subpart WWW are applicable to the landfill gas treatment system (LFGTS):

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

These monitoring conditions are necessary to ensure compliance with the requirements of 40 CFR 60, Subpart WWW.

2. The following compliance determination and compliance monitoring requirements from 40 CFR 63, Subpart AAAA are applicable to the landfill gas treatment system (LFGTS):

- (a) Compliance is determined in the same way it is determined for 40 CFR 60, Subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data, collected under 40 CFR 60.756(b)(1), (c)(1), and (d) of subpart WWW, are used to demonstrate compliance with the operating conditions for control systems. If a deviation occurs, you have failed to meet the control device operating conditions described in this subpart and have deviated from the requirements of this subpart. Finally, you must develop a written SSM plan according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site. Failure to write or maintain a copy of the SSM plan is a deviation from the requirements of this subpart.

- (b) A deviation is defined in 40 CFR 63.1990. For the purposes of the landfill monitoring and SSM plan requirements, deviations include the items in paragraphs (1) through (2) below.

- (1) A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour.

- (2) A deviation occurs when a SSM plan is not developed or maintained on site.

- (c) Averages are calculated in the same way as they are calculated in 40 CFR 60, Subpart WWW, except that the data collected during the events listed in paragraphs (1), (2), (3), and (4) [below] are not to be included in any average computed under this subpart:

- (1) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments.

- (2) Startups.

- (3) Shutdowns.

(4) Malfunctions.

These monitoring conditions are necessary to ensure compliance with the requirements of 40 CFR 63, Subpart AAAA.

3. The following compliance monitoring requirements from 40 CFR 63, Subpart ZZZZ are applicable to the landfill gas-fueled engine generators (EU-1 and EU-2):

If you are operating new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

These monitoring conditions are necessary to ensure compliance with the requirements of 40 CFR 63, Subpart ZZZZ.

Conclusion and Recommendation

The construction and operation of this proposed modification (landfill gas treatment system and a landfill gas-fueled engine/generation station) shall be subject to the conditions of the attached proposed Minor Source Modification No. 019-23898-00124 and Part 70 Permit No. 019-24153-00124. The staff recommends to the Commissioner that this Part 70 Minor Source Modification and Part 70 Permit be approved.

Appendix A: Emission Calculations
Combustion Emissions from the Engine/Generators

Company Name: Clark-Floyd Landfill Gas Generating Station
Address: 14304 State Road 60, Borden, Indiana 47106
MSM: 019-23898-00124
Reviewer: ERG/ST
Date: March 1, 2007

Fuel Input MMBtu/hr	NMOC ppmv	Flow Rate scfm	Facility Description:	Emissions Unit ID
9.81	595	337.68	One (1) GE Jenbacher landfill gas-fueled engine/generator, rated at 1,468 brake horsepower and 1,059 Kw	EU-1
9.81	595	337.68	One (1) GE Jenbacher landfill gas-fueled engine/generator, rated at 1,468 brake horsepower and 1,059 Kw	EU-2

Pollutant Emission Factors						
Emission Unit	PM ^a	PM10 ^a	SO ₂ ^b	NOx ^a	CO ^a	NMOC ^c
IC Engines	48	48	46.9	250	470	595
	(lb/10 ⁶ dscf)	(lb/10 ⁶ dscf)	(ppmv)	(lb/10 ⁶ dscf)	(lb/10 ⁶ dscf)	(ppmv)

Potential To Emit (tons/year)						
Emission Unit	PM	PM10	SO ₂	NOx	CO	NMOC
EU-1	2.13	2.13	0.70	11.1	20.9	0.33
EU-2	2.13	2.13	0.70	11.1	20.9	0.33
PTE Total	4.26	4.26	1.40	22.2	41.7	0.67

^a Emission factors are from AP-42, Chapter 2.4 - Municipal Solid Waste Landfills, Table 2.4-4 (11/98).

Assume PM emissions equal to PM10 emissions.

Assume 86% control of HAPs in internal combustion engine. AP 42, Chapter 2.4 - Municipal Solid Waste Landfills, Table 2.4-3 (11/98).

^b Total inlet concentration of sulfur content compounds is from AP-42, Chapter 2.4 - Municipal Solid Waste Landfills - Page 8 (AP-42, 11/98).

^c The NMOC concentration is the default value in EPA Landfill Gas Emissions Model, Version 2.01 and AP-42.

Methodology

PM / PM10 / NOx / CO Emissions (tons/yr) = Flow Rate (scfm landfill gas) / 10⁶ x Emission Factor (lb/10⁶ dscf) x 50% (Methane % in landfill gas) x 60 min/hr x 8760 hrs/yr x 1 ton/2000 lbs

SO₂ Emissions (tons/yr) = Flow Rate (scfm) x Emission Factor (ppmv) / 1,000,000 x 1 atm / Gas Constant (0.7302 atm-cf/lb mole-R) / Temp (60F+ 460) x Mole weight of SO₂ (64 lbs/lbs mole) x 60 min/hr x 8760 hr/yr x 1 ton/2000 lbs

NMOC Emissions (tons/yr) = Flow Rate (scfm) x Emission Factor (ppmv) / 1,000,000 x 1 atm / Gas Constant (0.7302 atm-cf/lb mole-R) / Temp (60F+ 460) x Mole weight of Hexane (lbs/lbs mole) x 60 min/hr x 8760 hr/yr x 1 ton/2000 lbs x (1-97.2% control efficiency)

Appendix A: Emission Calculations
 Combustion Emissions from the Engine/Generators

Company Name: Clark-Floyd Landfill Gas Generating Station
 Address: 14304 State Road 60, Borden, Indiana 47106
 MSM: 019-23898-00124
 Reviewer: ERG/ST
 Date: March 1, 2007

LFG Flow Rate (both engines)	675		scfm						
LFG Compound	HAP	VOC	CAS	Molecular Weight (lb/lb-mol)	Default Conc. (ppmv)	Max. Uncontrolled Emissions (ton/yr)	Destruction Eff. in IC (%)	Controlled Emissions (ton/yr)	
1,1,1-Trichloroethane (methyl chloroform)	x	-	71-55-6	133.41	0.48	0.030	93.0	0.00210	
1,1,2,2-Tetrachloroethane	x	x	79-34-5	167.85	1.11	0.087	93.0	0.00610	
1,1,2 - Trichloroethane (1,1,2 TCA)	x	x	79-00-5	133.41	0.1	0.006	93.0	0.00044	
1,1-Dichloroethane (ethylidene dichloride)	x	x	75-34-3	98.97	2.35	0.109	93.0	0.00761	
1,1-Dichloroethene (vinylidene chloride)	x	x	75-35-4	96.94	0.2	0.009	93.0	0.00063	
1,2-Dichloroethane (ethylene dichloride)	x	x	107-06-2	98.96	0.41	0.019	93.0	0.00133	
1,2-Dichloropropane (propylene dichloride)	x	x	78-87-5	112.99	0.18	0.010	93.0	0.00067	
2-Propanol (isopropyl alcohol)	-	y	67-63-0	60.11	50.1	1.408	86.1	0.19567	
Acetone (2-propanone)	-	-	67-64-1	58.08	7.01	0.190	86.1	0.02645	
Acrylonitrile (Propenenitrile)	x	x	107-13-1	53.06	6.33	0.157	86.1	0.02182	
Benzene	x	x	71-43-2	78.12	1.91	0.070	86.1	0.00969	
Bromodichloromethane	-	y	75-27-4	163.83	3.13	0.240	93.0	0.01678	
Butane	-	y	106-97-8	58.12	5.03	0.137	86.1	0.01899	
Carbon disulfide	x	x	75-15-0	76.13	0.58	0.021	86.1	0.00287	
Carbon tetrachloride	x	x	56-23-5	153.84	0.004	0.000	93.0	0.00002	
Carbonyl sulfide	x	x	463-58-1	60.07	0.49	0.014	86.1	0.00191	
Chlorobenzene (monochlorobenzene)	x	x	108-90-7	112.56	0.25	0.013	93.0	0.00092	
Chlorodifluoromethane (CFC-22, freon-22)	-	-	75-45-6	86.47	1.3	0.053	93.0	0.00368	
Chloroethane (ethyl chloride)	x	x	75-00-3	64.52	1.25	0.038	93.0	0.00264	
Chloroform (trichloromethane)	x	x	67-66-3	119.39	0.03	0.002	93.0	0.00012	
Chloromethane (methyl chloride)	x	x	74-87-3	50.49	1.25	0.030	93.0	0.00207	
1,4 Dichlorobenzene (p-dichlorobenzene)	x	x	106-46-7	147	0.21	0.014	93.0	0.00101	
Dichlorodifluoromethane (CFC-12, freon-12)	-	-	75-71-8	120.91	15.7	0.887	93.0	0.06211	
Dichlorofluoromethane (freon-21)	-	-	75-43-4	102.92	2.62	0.126	93.0	0.00882	
Dichloromethane (methylene chloride)	x	-	75-09-2	84.94	14.3	0.568	93.0	0.03974	
Dimethyl Sulfide (methyl sulfide)	-	y	75-18-3	62.13	7.82	0.227	86.1	0.03157	
Ethane	-	-	74-84-0	30.07	889	12.496	86.1	1.73688	
Ethanol (ethyl alcohol)	-	y	64-17-5	46.08	27.2	0.586	86.1	0.08144	
Ethylbenzene	x	x	100-41-4	106.17	4.61	0.229	86.1	0.03180	
Ethyl Mercaptan (ethanethiol)	-	y	75-08-1	62.13	1.25	0.036	86.1	0.00505	
Ethylene dibromide (1,2 dibromoethane)	x	x	106-93-4	187.88	0.001	0.000	93.0	0.00001	
Fluorotrichloromethane (CFC-11, freon-11)	-	-	75-69-4	137.38	0.76	0.049	93.0	0.00342	
Hexane	x	x	110-54-3	86.18	6.57	0.265	86.1	0.03679	
Hydrogen Chloride (Hydrochloric acid)	x	-	7647-01-0	36.5	42	0.717	0.0	0.71658	
Hydrogen Sulfide	-	-	7783-06-4	34.08	35.5	0.566	97.0	0.01697	
Mercury	x	-	7439-97-6	200.61	0.000292	0.000	86.1	0.00000	
Methyl ethyl ketone (2-butanone)	x	x	78-93-3	72.11	7.09	0.239	86.1	0.03322	
Methyl isobutyl ketone (hexone)	x	x	107-10-1	100.16	1.87	0.088	86.1	0.01217	
Methyl Mercaptan	-	y	74-93-1	48.11	2.49	0.056	86.1	0.00778	
Pentane	-	y	109-66-0	72.15	3.29	0.111	86.1	0.01542	
Perchloroethylene	-	-	127-18-4	165.83	3.73	0.289	93.0	0.02024	
Propane	-	y	74-98-6	44.09	11.1	0.229	86.1	0.03180	
Toluene (methylbenzene)	x	x	108-88-3	92.1	39.3	1.692	86.1	0.23517	
Trichloroethylene (trichloroethene)	x	x	79-01-6	131.4	2.82	0.173	93.0	0.01212	
t - 1,2 - Dichloroethene (1,2 dichloroethylene)	-	-	156-60-5	96.94	2.84	0.129	93.0	0.00901	
Vinyl Chloride (chloroethylene, VCM)	x	x	75-01-4	62.5	7.34	0.214	93.0	0.01501	
Xylenes (m,o,p)	x	x	1330-20-7	106.16	12.1	0.600	86.1	0.08346	
Total HAP									1.27801
Maximum Single HAP									0.71658

Note: Default concentrations are taken from AP-42 Table 2.4-1. Destruction efficiencies are taken from Table 2.4-3 typical control efficiencies (except H₂S control) efficiency is taken from vendor guarantee).

Key to HAP and VOC list: "x" denotes a HAP only or a HAP and VOC; "y" denotes a VOC only

Methodology

Max. Uncontrolled Emissions (ton/yr) = Gas Flow Rate (scfm) x Concentration (ppmv) x 1/1,000,000 x Molecular Weight (lb/lb-mole) x 1 atm / Gas Constant (0.7302 atm-cf/lb mole-R) / Temp (60F+ 460) x 60 min/hr x 8760 hr/yr x 1 ton/2000 lbs x (1-97.2% control efficiency)

Max. Controlled Emissions (ton/yr) = Max. Uncontrolled Emissions (ton/yr) x (1-% control efficiency)

Appendix A: Emission Calculations
 Combustion Emissions - Propane Heaters

Company Name: Clark-Floyd Landfill Gas Generating Station
 Address: 14304 State Road 60, Borden, Indiana 47106
 MSM: 019-23898-00124
 Reviewer: ERG/ST
 Date: March 1, 2007

Potential to Emit of Propane Heaters

Sulfur Content (gr/100 ft ³)	Emission Factors (lbs/1,000 gals)					
	PM	PM10	SO ₂	NO _x	CO	VOC
0.16	0.4	0.4	0.016	14	1.9	0.5

		Potential to Emit (tons/year)					
Heat Input Capacity (MMBtu/hour)	Potential Throughput (1,000 gals/year)	PM	PM10	SO ₂	NO _x	CO	VOC
0.4	39	0.01	0.01	0.00	0.27	0.04	0.01

Emission factors are from AP-42, Chapter 1.5 - Emission Factors for LPG Combustion, Table 1.5-1, SCC #1-03-010-02, Commercial Boilers (AP-42 Supplement B 10/96)

1 MMBtu = 1,000,000 Btu

1,000 gallons Propane = 90.5 MMBtu

All emission factors are based on normal firing.

Methodology

Potential Throughput (1,000 gals/year) = Heat Input Capacity (MMBtu/hour) x 8,760 (hours/year) x 1,000 gals/90.5 MMBtu

PTE (tons/year) = Potential Throughput (1,000 gals/year) x Emission Factor (lbs/1,000 gals) x 1 ton/2,000 lbs

Company Name: Clark-Floyd Landfill Gas Generating Station
 Address: 14304 State Road 60, Borden, Indiana 47106
 MSM: 019-23898-00124
 Reviewer: ERG/ST
 Date: March 1, 2007

Pollutant Emission Factor (lbs/MMBtu)							
PM	PM10	SO ₂	NO _x	VOC	CO	Organic HAPs	Metal HAPs
0.014	0.024	0.51	0.14	0.004	0.036	2.91E-04	4.90E-05

Max. Heat Input Capacity (MMBtu/hour)	Potential to Emit (tons/year)							
	PM	PM10	SO ₂	NO _x	VOC	CO	Organic HAPs	Metal HAPs
0.4	0.03	0.04	0.89	0.25	0.01	0.06	0.001	0.0001

PM10 includes both condensable and filterable fractions.

The weight % content of sulfur in the fuel oil is 0.5% or less.

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Emission factors from AP 42, Chapter 1.3, Tables 1.3-1, 1.3-2, 1.3-3, 1.3-9 and 1.3-10 (SCC 1-02-005-02/03, 1-03-005-01/02/03) (9/98).

Methodology

Pollutant Emission Factor (lbs/MMBtu) = AP 42 emission factor (lbs/1,000 gals oil) x 1,000 gals oil/140,000,000 Btu x 1,000,000 Btu/MMBtu

Potential to Emit (tons/year) = Maximum Heat Input Capacity (MMBtu/hour) x Emission factor (lbs/MMBtu) x 8760 (hours/year) x 1 ton/2,000 lbs

Appendix A: Emission Calculations
Summary

Company Name: Clark-Floyd Landfill Gas Generating Station
 Address: 14304 State Road 60, Borden, Indiana 47106
 MSM: 019-23898-00124
 Reviewer: ERG/ST
 Date: March 1, 2007

Emission Unit	Potential to Emit (tons/year)						Total HAPs
	PM	PM10	SO ₂	NO _x	CO	VOC	
EU-01 and EU-02	4.26	4.26	1.40	22.2	41.7	0.67	1.28
Propane Heater	0.01	0.01	0.00	0.27	0.04	0.01	---
Fuel Oil Combustion	0.03	0.04	0.89	0.25	0.06	0.01	6.0E-04
Totals	4.29	4.31	2.29	22.7	41.8	0.69	1.28