



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: January 15, 2009
RE: Biotown Energy / 181 - 26924 - 00049
FROM: Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

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

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

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

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

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

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

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

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

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

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



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

January 15, 2009

Mr. Frank Starr
Indiana BioTown / BioTown Energy, LLC
4655 Rosebud Lane
Newburgh, IN 47630

Re: T 181-26924-00049
New Source Construction and Part 70 Operating Permit

Dear Mr. Starr:

Indiana BioTown / BioTown Energy, LLC requested approval for a new source construction and first time Part 70 Operating Permit on August 28, 2008, for an anaerobic digester biogas energy center. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(a) Material Handling:

- (1) Animal waste (BTA_g C&SM) storage and handling, with a maximum capacity of 1,000 tons per week, including one (1) animal waste storage tank, identified as TAN003, permitted in 2008, with a maximum capacity of 10,000 gallons.
- (2) Biological Fertilizer Supplement (BFS) storage and handling, with a maximum capacity of 30,000 tons per year, including one (1) BFS storage tank, identified as TAN004, permitted in 2008, with a maximum capacity of 10,000 gallons.
- (3) One (1) open, agitated Feedstock Blending Tank, identified as TAN001, permitted in 2008, with a maximum capacity of 20,000 gallons.
- (4) Two (2) open, agitated Feedstock Dilution Tanks, identified as TAN002A and TAN002B, permitted in 2008, each with a maximum capacity of 5,000 gallons, receiving blend-tank material from the Feedstock Blending Tank and dilution water from Effluent Recovery.

(b) Anaerobic Digester:

One (1) in-ground Anaerobic Digester Reactor, identified as ADR001, permitted in 2008, with a maximum capacity of one hundred fifty (150) gallons per minute (GPM) of influent waste from Material Handling, generating biogas fuel for the Energy Center and wastewater for Effluent Recovery.

(c) Energy Center:

- (1) One (1) Reciprocating Internal Combustion Engine (RICE), identified as ICE001 (ICE-BUB-EFS Train 001), permitted in 2008, with nominal electricity generating capacity of 1.6 megawatts (MW) and a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester Reactor and exhausting through stack S/V001A.

- (2) One (1) Reciprocating Internal Combustion Engine (RICE), identified as ICE002 (ICE-BUB-EFS Train 002), permitted in 2008, with nominal electricity generating capacity of 1.6 megawatts (MW) and a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester Reactor and exhausting through stack S/V002A.
- (d) Effluent Recovery: AD wastewater treatment and effluent recovery system consisting of:
- (1) One (1) Primary Solids Separator (FAN Separator), identified as PSS001, permitted in 2008, with a maximum capacity of one hundred fifty (150) gallons per minute (GPM), separating the biogas generated in the Anaerobic Digester Reactor and routing the biogas to the Energy Center and routing Anaerobic Digester Reactor effluent to the Secondary Solids Separator.
 - (2) One (1) Secondary Solids Separator, identified as SSS001, permitted in 2008, with a maximum capacity of one hundred fifty (150) gallons per minute (GPM), with an integrated subsystem of screens, clarifier, recycle streams, and additives, providing recoverable solids to be used as animal bedding, dilution water for the Feedstock Dilution Tank, and partially treated water for final treatment by Reverse Osmosis (RO).
 - (3) One (1) Tertiary Solids Separator, identified as TSS001, permitted in 2008, with a maximum capacity of one hundred fifty (150) gallons per minute (GPM), providing clean water through Reverse Osmosis (RO) and/or a Membrane Bioreactor.
 - (4) One (1) Emergency Lagoon, identified as LA001, permitted in 2008, for effluent recovery during emergency episodes.
- (e) Balance of Plant:
- (1) Two (2) ICE exhaust gas heat exchangers supplying heat to the anaerobic digester.
 - (2) One (1) Back-up Boiler, identified as BUB001 (ICE-BUB-EFS Train 001), permitted in 2008, with a maximum heat input capacity of five (5) million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester as a primary fuel and propane or No. 2 fuel oil as a secondary fuel, exhausting through stack S/V001B.
 - (3) One (1) Back-up Boiler, identified as BUB002 (ICE-BUB-EFS Train 002), permitted in 2008, with a maximum heat input capacity of five (5) million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester as a primary fuel and propane or No. 2 fuel oil as a secondary fuel, exhausting through stack S/V002B.
 - (4) One (1) Emergency Flare, identified as EFS001 (ICE-BUB-EFS Train 001), permitted in 2008, with a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr) and a maximum flow rate of 440 cubic feet per minute (CFM) of biogas, combusting surplus biogas from Back-up Boiler, BUB001, and exhausting through stacks S/V001C and S/V002C.
 - (5) One (1) Emergency Flare, identified as EFS002 (ICE-BUB-EFS Train 002), permitted in 2008, with a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr) and a maximum flow rate of 440 cubic feet per minute (CFM) of biogas, combusting surplus biogas from Back-up Boiler, BUB002, and exhausting through stack S/V002C.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

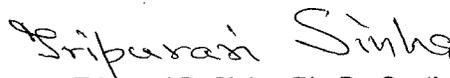
1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. 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 and operation when this new source construction and Part 70 operating permit has been issued.

All other conditions of the permit shall remain unchanged and in effect. For your convenience, the entire Part 70 Operating Permit as modified will be provided at issuance.

This decision is subject to the Indiana Administrative Orders and Procedures Act – IC 4-21.5-3-5. If you have any questions on this matter, please contact Kimberly Cottrell, OAQ, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Kimberly Cottrell or extension (3-0870), or dial (317) 233-0870.

Sincerely,



Tripurari P. Sinha, Ph. D., Section Chief
Permits Branch
Office of Air Quality

Attachments:
Operating Permit
Technical Support Document
PTE Calculations

klc

cc: File – White County
White County Health Department
U.S. EPA, Region V
Air Compliance Branch
Compliance Data Section
Permits Administration and Development

Mr. Lawrence Roth
Indiana BioTown / BioTown Energy, LLC
4655 Rosebud Lane
Newburgh, IN 47630

Mr. B. A. Laseke
GZA Environmental, Inc.
Sharon View Corporate Center, Suite 511
11499 Chester Road
Sharonville, OH 45246



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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NEW SOURCE CONSTRUCTION AND PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

Indiana BioTown / BioTown Energy, LLC
North 100 West
Reynolds, Indiana 47980

(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.

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. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions

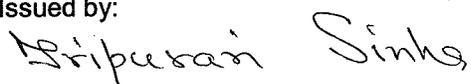
Operation Permit No.: T 181-26924-00049	
Issued by:  Tripurari P. Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: January 15, 2009 Expiration Date: January 15, 2014

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**Attachment A Standards of Performance for Stationary Spark Ignition Internal Combustion
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**Attachment B National Emission Standards for Hazardous Air Pollutants: Stationary
Reciprocating Internal Combustion Engines [326 IAC 20-82] [40 CFR Part 63,
Subpart ZZZZ]**

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 anaerobic digester biogas energy center.

Source Address:	North 100 West, Reynolds, Indiana 47980
Mailing Address:	4655 Rosebud Lane, Newburgh, IN 47630
General Source Phone Number:	812-471-5000
SIC Code:	4911
County Location:	White
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD Rules Major Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

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

(a) Energy Center:

- (1) One (1) Reciprocating Internal Combustion Engine (RICE), identified as ICE001 (ICE-BUB-EFS Train 001), permitted in 2008, with nominal electricity generating capacity of 1.6 megawatts (MW) and a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester Reactor and exhausting through stack S/V001A.
- (2) One (1) Reciprocating Internal Combustion Engine (RICE), identified as ICE002 (ICE-BUB-EFS Train 002), permitted in 2008, with nominal electricity generating capacity of 1.6 megawatts (MW) and a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester Reactor and exhausting through stack S/V002A.

(b) Balance of Plant:

- (1) One (1) Emergency Flare, identified as EFS001 (ICE-BUB-EFS Train 001), permitted in 2008, with a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr) and a maximum flow rate of 440 cubic feet per minute (CFM) of biogas, combusting surplus biogas from Back-up Boiler, BUB001, and exhausting through stacks S/V001C and S/V002C.
- (2) One (1) Emergency Flare, identified as EFS002 (ICE-BUB-EFS Train 002), permitted in 2008, with a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr) and a maximum flow rate of 440 cubic feet per minute (CFM) of biogas, combusting surplus biogas from Back-up Boiler, BUB002, and exhausting through stack S/V002C.

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

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

(a) Material Handling:

- (1) Animal waste (BTA_g C&SM) storage and handling, with a maximum capacity of 1,000 tons per week, including one (1) animal waste storage tank, identified as TAN003, permitted in 2008, with a maximum capacity of 10,000 gallons.
- (2) Biological Fertilizer Supplement (BFS) storage and handling, with a maximum capacity of 30,000 tons per year, including one (1) BFS storage tank, identified as TAN004, permitted in 2008, with a maximum capacity of 10,000 gallons.
- (3) One (1) open, agitated Feedstock Blending Tank, identified as TAN001, permitted in 2008, with a maximum capacity of 20,000 gallons.
- (4) Two (2) open, agitated Feedstock Dilution Tanks, identified as TAN002A and TAN002B, permitted in 2008, each with a maximum capacity of 5,000 gallons, receiving blend-tank material from the Feedstock Blending Tank and dilution water from Effluent Recovery.

(b) Anaerobic Digester:

One (1) in-ground Anaerobic Digester Reactor, identified as ADR001, permitted in 2008, with a maximum capacity of one hundred fifty (150) gallons per minute (GPM) of influent waste from Material Handling, generating biogas fuel for the Energy Center and wastewater for Effluent Recovery.

(c) Effluent Recovery: AD wastewater treatment and effluent recovery system consisting of:

- (1) One (1) Primary Solids Separator (FAN Separator), identified as PSS001, permitted in 2008, with a maximum capacity of one hundred fifty (150) gallons per minute (GPM), separating the biogas generated in the Anaerobic Digester Reactor and routing the biogas to the Energy Center and routing Anaerobic Digester Reactor effluent to the Secondary Solids Separator.
- (2) One (1) Secondary Solids Separator, identified as SSS001, permitted in 2008, with a maximum capacity of one hundred fifty (150) gallons per minute (GPM), with an integrated subsystem of screens, clarifier, recycle streams, and additives, providing recoverable solids to be used as animal bedding, dilution water for the Feedstock Dilution Tank, and partially treated water for final treatment by Reverse Osmosis (RO).
- (3) One (1) Tertiary Solids Separator, identified as TSS001, permitted in 2008, with a maximum capacity of one hundred fifty (150) gallons per minute (GPM), providing clean water through Reverse Osmosis (RO) and/or a Membrane Bioreactor.
- (4) One (1) Emergency Lagoon, identified as LA001, permitted in 2008, for effluent recovery during emergency episodes.

- (d) Balance of Plant:
- (1) Two (2) ICE exhaust gas heat exchangers supplying heat to the anaerobic digester.
 - (2) One (1) Back-up Boiler, identified as BUB001 (ICE-BUB-EFS Train 001), permitted in 2008, with a maximum heat input capacity of five (5) million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester as a primary fuel and propane or No. 2 fuel oil as a secondary fuel, exhausting through stack S/V001B.
 - (3) One (1) Back-up Boiler, identified as BUB002 (ICE-BUB-EFS Train 002), permitted in 2008, with a maximum heat input capacity of five (5) million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester as a primary fuel and propane or No. 2 fuel oil as a secondary fuel, exhausting through stack S/V002B.

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

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

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

SECTION B GENERAL CONDITIONS

B.1 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 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.3 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4]

This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 when prior to the start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as proposed.
- (b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.
- (c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.

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

- (a) This permit, T 181-26924-00049, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.5 Term of Conditions [326 IAC 2-1.1-9.5]

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

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

B.6 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

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

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

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

B.8 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

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

B.9 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.10 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) A "responsible official" is defined at 326 IAC 2-7-1(34).

B.11 Annual Compliance Certification [326 IAC 2-7-6(5)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53, IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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

B.12 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 or ninety (90) days after initial start-up, whichever is later, 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
MC 61-53, IGCN 1003
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.13 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
MC 61-53, IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

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

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

B.14 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.15 Prior Permits Superseded [326 IAC 2-1.1-9.5] [326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T 181-26924-00049 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this combined permit, T 181-26924-00049, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit.

B.16 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

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

B.17 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53, IGCN 1003
Indianapolis, Indiana 46204-2251

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

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

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

B.18 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

- (1) That this permit contains a material mistake.
- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.19 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]

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

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53, IGCN 1003
Indianapolis, Indiana 46204-2251

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

B.20 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53, IGCN 1003
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.21 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]
[326 IAC 2-7-12(b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.22 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
 - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53, IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and
 - (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

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

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
- (1) A brief description of the change within the source;
 - (2) The date on which the change will occur;
 - (3) Any change in emissions; and
 - (4) Any permit term or condition that is no longer applicable as a result of the change.

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

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

B.23 Source Modification Requirement [326 IAC 2-7-10.5]

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

B.24 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

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

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.25 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53, IGCN 1003
Indianapolis, Indiana 46204-2251

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

B.26 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]

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

B.27 Advanced Source Modification Approval [326 IAC 2-7-5(16)] [326 IAC 2-7-10.5]

- (a) The requirements to obtain a source modification approval under 326 IAC 2-7-10.5 or a permit modification under 326 IAC 2-7-12 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.

- (b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.

B.28 Credible Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

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

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

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

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

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

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

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:
- (A) Asbestos removal or demolition start date;
- (B) Removal or demolition contractor; or
- (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52, IGCN 1003
Indianapolis, Indiana 46204-2251

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

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

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

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53, IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

Compliance Requirements [326 IAC 2-1.1-11]

C.9 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.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53, IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

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

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

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

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

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

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53, IGCN 1003
Indianapolis, Indiana 46204-2251

within 180 days from the date on which this source commences operation.

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

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

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

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

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

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

- (2) review of operation and maintenance procedures and records; and/or
- (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

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

- (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 twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

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

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

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

- (a) In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2010 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
 - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
 - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50, IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

C.18 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 or ninety (90) days of initial startup, whichever is later.

C.19 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
MC 61-53, IGCN 1003
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 or the date of initial startup, whichever is later, 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.

Stratospheric Ozone Protection

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

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

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) Energy Center:

- (1) One (1) Reciprocating Internal Combustion Engine (RICE), identified as ICE001 (ICE-BUB-EFS Train 001), permitted in 2008, with nominal electricity generating capacity of 1.6 megawatts (MW) and a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester Reactor and exhausting through stack S/V001A.
- (2) One (1) Reciprocating Internal Combustion Engine (RICE), identified as ICE002 (ICE-BUB-EFS Train 002), permitted in 2008, with nominal electricity generating capacity of 1.6 megawatts (MW) and a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester Reactor and exhausting through stack S/V002A.

Under 40 CFR 60, Subpart JJJJ, each of these units is considered a stationary internal combustion engine (ICE).

Under 40 CFR 63, Subpart ZZZZ, each of these units is considered a new stationary reciprocating internal combustion engine (RICE).

(b) Balance of Plant:

- (1) One (1) Back-up Boiler, identified as BUB001 (ICE-BUB-EFS Train 001), permitted in 2008, with a maximum heat input capacity of five (5) million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester as a primary fuel and propane or No. 2 fuel oil as a secondary fuel, exhausting through stack S/V001B.
- (2) One (1) Back-up Boiler, identified as BUB002 (ICE-BUB-EFS Train 002), permitted in 2008, with a maximum heat input capacity of five (5) million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester as a primary fuel and propane or No. 2 fuel oil as a secondary fuel, exhausting through stack S/V002B.

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

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

D.1.1 Particulate Matter (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating, the PM emissions from the Back-up Boilers, BUB001 and BUB002, shall be limited to 0.6 pounds per MMBtu (lb/MMBtu) heat input, each. This limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.
Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input.

New Source Performance Standards (NSPS)

D.1.2 General Provisions Relating to NSPS (Subpart JJJJ) [326 IAC 12] [40 CFR Part 60, Subpart A]

Pursuant to 40 CFR 60.4246, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1-1 for the Reciprocating Internal Combustion Engines (RICE), identified as ICE001 and ICE002, as specified in Table 3 to 40 CFR Part 60, Subpart JJJJ.

D.1.3 Standards of Performance for Stationary Spark Ignition Internal Combustion Engines [326 IAC 12-1] [40 CFR Part 60, Subpart JJJJ]

The Permittee shall comply with the following applicable portions of 40 CFR Part 60, Subpart JJJJ, which are incorporated by reference as 326 IAC 12-1-1 and included as Attachment A to this permit, for the Reciprocating Internal Combustion Engines (RICE), identified as ICE001 and ICE002:

- (a) 40 CFR 60.4230(a)(4)(i);
- (b) 40 CFR 60.4233(e);
- (c) 40 CFR 60.4234;
- (d) 40 CFR 60.4236;
- (e) 40 CFR 60.4243 (b) and (g);
- (f) 40 CFR 60.4245;
- (g) 40 CFR 60.4246;
- (h) 40 CFR 60.4248;
- (i) Table 1;
- (j) Table 2; and
- (k) Table 3

National Emission Standards for Hazardous Air Pollutants (NESHAP)

D.1.4 General Provisions Relating to NESHAP (Subpart ZZZZ) [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.6665, 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 Reciprocating Internal Combustion Engines (RICE), identified as ICE001 and ICE002, as specified in Table 8 to 40 CFR Part 63, Subpart ZZZZ.

D.1.5 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [326 IAC 20-82] [40 CFR Part 63, Subpart ZZZZ]

Pursuant to 40 CFR 63.6595, the Permittee shall comply upon startup with the following applicable portions of 40 CFR Part 63, Subpart ZZZZ, which are incorporated by reference as 326 IAC 20-82 and included as Attachment B to this permit, for the Reciprocating Internal Combustion Engines (RICE), identified as ICE001 and ICE002:

- (a) 40 CFR 63.6580;
- (b) 40 CFR 63.6585;

- (c) 40 CFR 63.6590(a)(2)(i);
- (d) 40 CFR 63.6595 (a)(3) and (c);
- (e) 40 CFR 63.6600(c);
- (f) 40 CFR 63.6605;
- (g) 40 CFR 63.6625(c);
- (h) 40 CFR 63.6640(e);
- (i) 40 CFR 63.6650 (a) and (g);
- (j) 40 CFR 63.6655(c);
- (k) 40 CFR 63.6660;
- (l) 40 CFR 63.6665;
- (m) 40 CFR 63.6670;
- (n) 40 CFR 63.6675;
- (o) Table 7; and
- (p) Table 8

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Indiana BioTown / BioTown Energy, LLC
Source Address: North 100 West, Reynolds, Indiana 47980
Mailing Address: 4655 Rosebud Lane, Newburgh, IN 47630
Part 70 Permit No.: T 181-26924-00049

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
MC 61-53, IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

PART 70 OPERATING PERMIT EMERGENCY OCCURRENCE REPORT

Source Name: Indiana BioTown / BioTown Energy, LLC
Source Address: North 100 West, Reynolds, Indiana 47980
Mailing Address: 4655 Rosebud Lane, Newburgh, IN 47630
Part 70 Permit No.: T 181-26924-00049

This form consists of 2 pages

Page 1 of 2

<input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none">• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and• The Permittee must submit notice in writing or by facsimile within two (2) 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? <input type="checkbox"/> Y <input type="checkbox"/> N Describe:
Type of Pollutants Emitted: <input type="checkbox"/> TSP <input type="checkbox"/> PM-10 <input type="checkbox"/> SO ₂ <input type="checkbox"/> VOC <input type="checkbox"/> NO _x <input type="checkbox"/> CO <input type="checkbox"/> Pb <input type="checkbox"/> 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: _____

Attach a signed certification to complete 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: Indiana BioTown / BioTown Energy, LLC
Source Address: North 100 West, Reynolds, Indiana 47980
Mailing Address: 4655 Rosebud Lane, Newburgh, IN 47630
Part 70 Permit No.: T 181-26924-00049

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

Page 1 of 2

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

Mail to: Permit Administration & Development Section
Office of Air Quality
100 North Senate Avenue
MC 61-53, IGCN 1003
Indianapolis, Indiana 46204-2251

Indiana BioTown / BioTown Energy, LLC
North 100 West
Reynolds, Indiana 47980

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of _____ for _____.
(Title) (Company Name)

3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____.
(Company Name)

4. I hereby certify that Indiana BioTown / BioTown Energy, LLC, North 100 West, Reynolds, Indiana 47980, completed construction of the anaerobic digester biogas energy center on _____ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on August 28, 2008, and as permitted pursuant to New Source Construction Permit and Part 70 Operating Permit No. T 181-26924-00049, Plant ID No. 181-00049, issued on _____.

5. **Permittee, please cross out the following statement if it does not apply:** Additional (operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature _____

Date _____

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana on this _____ day of _____, 20____. My Commission expires: _____.

Signature _____

Name _____
(typed or printed)

Attachment A
Standards of Performance for Stationary Spark Ignition Internal
Combustion Engines [326 IAC 12] [40 CFR 60, Subpart JJJJ]

Source Description and Location
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Source Name:	Indiana BioTown / BioTown Energy, LLC
Source Location:	North 100 West, Reynolds, IN 47980
County:	White
SIC Code:	4911
Operation Permit No.:	T 181-26924-00049
Permit Reviewer:	Kimberly Cottrell

NSPS - 40 CFR 60, Subpart JJJJ

Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

What This Subpart Covers

§ 60.4230 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (5) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary SI ICE with a maximum engine power less than or equal to 19 kilowatt (KW) (25 horsepower (HP)) that are manufactured on or after July 1, 2008.

(2) Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are gasoline fueled or that are rich burn engines fueled by liquefied petroleum gas (LPG), where the date of manufacture is:

(i) On or after July 1, 2008; or

(ii) On or after January 1, 2009, for emergency engines.

(3) Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are not gasoline fueled and are not rich burn engines fueled by LPG, where the manufacturer participates in the voluntary manufacturer certification program described in this subpart and where the date of manufacture is:

(i) On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);

(ii) On or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;

(iii) On or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or

(iv) On or after January 1, 2009, for emergency engines.

(4) Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

(i) On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);

(ii) on or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;

(iii) on or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or

(iv) on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

(5) Owners and operators of stationary SI ICE that commence modification or reconstruction after June 12, 2006.

(b) The provisions of this subpart are not applicable to stationary SI ICE being tested at an engine test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(d) For the purposes of this subpart, stationary SI ICE using alcohol-based fuels are considered gasoline engines.

(e) Stationary SI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR parts 90 and 1048, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

(f) Owners and operators of facilities with internal combustion engines that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

Emission Standards for Manufacturers

§ 60.4231 What emission standards must I meet if I am a manufacturer of stationary SI internal combustion engines?

(a) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90.

(b) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) (except emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) that use gasoline and that are manufactured on or after the applicable date in §60.4230(a)(2), or manufactured on or after the applicable date in §60.4230(a)(4) for emergency stationary ICE with a maximum engine power greater than or equal to 130 HP, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers must certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP that are manufactured on or after the applicable date in §60.4230(a)(4) to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cubic centimeters (cc) to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90.

(c) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) (except emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) that are rich burn engines that use LPG and that are manufactured on or after the applicable date in §60.4230(a)(2), or manufactured on or after the applicable date in §60.4230(a)(4) for emergency stationary ICE with a maximum engine power greater than or equal to 130 HP, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers must certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP that are manufactured on or after the applicable date in §60.4230(a)(4) to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90.

(d) Stationary SI internal combustion engine manufacturers who choose to certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG and emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) under the voluntary manufacturer certification program described in this subpart must certify those engines to the certification emission standards for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers who choose to certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP, must certify those engines to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards for new nonroad SI engines in 40 CFR part 90. For stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG and emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) manufactured prior to January 1, 2011, manufacturers may choose to certify these engines to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP.

(e) Stationary SI internal combustion engine manufacturers who choose to certify their stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) under the voluntary manufacturer certification program described in this subpart must certify those engines to the emission standards in Table 1 to this subpart. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) that are lean burn engines that use LPG to the certification emission standards for new nonroad SI engines in 40 CFR part 1048. For stationary SI ICE with a maximum engine power greater than or equal to 100 HP (75 KW) and less than 500 HP (373 KW) manufactured prior to January 1, 2011, and for stationary SI ICE with a maximum engine power greater than or equal to 500 HP (373 KW) manufactured prior to July 1, 2010, manufacturers may choose to certify these engines to the certification emission standards for new nonroad SI engines in 40 CFR part 1048 applicable to engines that are not severe duty engines.

§ 60.4232 How long must my engines meet the emission standards if I am a manufacturer of stationary SI internal combustion engines?

Engines manufactured by stationary SI internal combustion engine manufacturers must meet the emission standards as required in §60.4231 during the certified emissions life of the engines.

Emission Standards for Owners and Operators

§ 60.4233 What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

(a) Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008, must comply with the emission standards in §60.4231(a) for their stationary SI ICE.

(b) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in §60.4230(a)(4) that use gasoline must comply with the emission standards in §60.4231(b) for their stationary SI ICE.

(c) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in §60.4230(a)(4) that are rich burn engines that use LPG must comply with the emission standards in §60.4231(c) for their stationary SI ICE.

(d) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards for field testing in 40 CFR 1048.101(c) for their non-emergency stationary SI ICE and with the emission standards in Table 1 to this subpart for their emergency stationary SI ICE. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) manufactured prior to January 1, 2011, that were certified to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP, may optionally choose to meet those standards.

(e) Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.

(f) Owners and operators of any modified or reconstructed stationary SI ICE subject to this subpart must meet the requirements as specified in paragraphs (f)(1) through (5) of this section.

(1) Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (a) of this section.

(2) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that use gasoline engines, that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (b) of this section.

(3) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are rich burn engines that use LPG, that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (c) of this section.

(4) Owners and operators of stationary SI natural gas and lean burn LPG engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (d) or (e) of this section, except that such owners and operators of non-emergency engines and emergency engines greater than or equal to 130 HP must meet a nitrogen oxides (NO_x) emission standard of 3.0 grams per HP-hour (g/HP-hr), a CO emission standard of 4.0 g/HP-hr (5.0 g/HP-hr for non-emergency engines less than 100 HP), and a volatile organic compounds (VOC) emission standard of 1.0 g/HP-hr, or a NO_x emission standard of 250 ppmvd at 15 percent oxygen (O₂), a CO emission standard 540 ppmvd at 15 percent O₂ (675 ppmvd at 15 percent O₂ for non-emergency engines less than 100 HP), and a VOC emission standard of 86 ppmvd at 15 percent O₂, where the date of manufacture of the engine is:

(i) Prior to July 1, 2007, for non-emergency engines with a maximum engine power greater than or equal to 500 HP;

(ii) Prior to July 1, 2008, for non-emergency engines with a maximum engine power less than 500 HP;

(iii) Prior to January 1, 2009, for emergency engines.

(5) Owners and operators of stationary SI landfill/digester gas ICE engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (e) of this section for stationary landfill/digester gas engines.

(g) Owners and operators of stationary SI wellhead gas ICE engines may petition the Administrator for approval on a case-by-case basis to meet emission standards no less stringent than the emission standards that apply to stationary emergency SI engines greater than 25 HP and less than 130 HP due to the presence of high sulfur levels in the fuel, as specified in Table 1 to this subpart. The request must, at a minimum, demonstrate that the fuel has high sulfur levels that prevent the use of aftertreatment controls and also that the owner has reasonably made all attempts possible to obtain an engine that will meet the standards without the use of aftertreatment controls. The petition must request the most stringent standards reasonably applicable to the engine using the fuel.

(h) Owners and operators of stationary SI ICE that are required to meet standards that reference 40 CFR 1048.101 must, if testing their engines in use, meet the standards in that section applicable to field testing, except as indicated in paragraph (e) of this section.

§ 60.4234 How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

Other Requirements for Owners and Operators

§ 60.4235 What fuel requirements must I meet if I am an owner or operator of a stationary SI gasoline fired internal combustion engine subject to this subpart?

Owners and operators of stationary SI ICE subject to this subpart that use gasoline must use gasoline that meets the per gallon sulfur limit in 40 CFR 80.195.

§ 60.4236 What is the deadline for importing or installing stationary SI ICE produced in the previous model year?

(a) After July 1, 2010, owners and operators may not install stationary SI ICE with a maximum engine power of less than 500 HP that do not meet the applicable requirements in §60.4233.

(b) After July 1, 2009, owners and operators may not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable requirements in §60.4233, except that lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP that do not meet the applicable requirements in §60.4233 may not be installed after January 1, 2010.

(c) For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), owners and operators may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011.

(d) In addition to the requirements specified in §§60.4231 and 60.4233, it is prohibited to import stationary SI ICE less than or equal to 19 KW (25 HP), stationary rich burn LPG SI ICE, and stationary gasoline SI ICE that do not meet the applicable requirements specified in paragraphs (a), (b), and (c) of this section, after the date specified in paragraph (a), (b), and (c) of this section.

(e) The requirements of this section do not apply to owners and operators of stationary SI ICE that have been modified or reconstructed, and they do not apply to engines that were removed from one existing location and reinstalled at a new location.

§ 60.4237 What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?

(a) Starting on July 1, 2010, if the emergency stationary SI internal combustion engine that is greater than or equal to 500 HP that was built on or after July 1, 2010, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.

(b) Starting on January 1, 2011, if the emergency stationary SI internal combustion engine that is greater than or equal to 130 HP and less than 500 HP that was built on or after January 1, 2011, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.

(c) If you are an owner or operator of an emergency stationary SI internal combustion engine that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter upon startup of your emergency engine.

Compliance Requirements for Manufacturers

§ 60.4238 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines ≤19 KW (25 HP)?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(a) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, and must test their engines as specified in that part.

§ 60.4239 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines >19 KW (25 HP) that use gasoline?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(b) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must test their engines as specified in that part. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90, and manufacturers of stationary SI emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, and must test their engines as specified in that part.

§ 60.4240 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines >19 KW (25 HP) that are rich burn engines that use LPG?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(c) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must test their engines as specified in that part. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90, and manufacturers of emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, and must test their engines as specified in that part.

§ 60.4241 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines participating in the voluntary certification program?

(a) Manufacturers of stationary SI internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG can choose to certify their engines to the emission standards in §60.4231(d) or (e), as applicable, under the voluntary certification program described in this subpart. Manufacturers who certify their engines under the voluntary certification program must meet the requirements as specified in paragraphs (b) through (g) of this section. In addition, manufacturers of stationary SI internal combustion engines who choose to certify their engines under the voluntary certification program, must also meet the requirements as specified in §60.4247.

(b) Manufacturers of engines other than those certified to standards in 40 CFR part 90 must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must follow the same test procedures that apply to large SI nonroad engines under 40 CFR part 1048, but must use the D-1 cycle of International Organization of Standardization 8178-4: 1996(E) (incorporated by reference, see 40 CFR 60.17) or the test cycle requirements specified in Table 5 to 40 CFR 1048.505, except that Table 5 of 40 CFR 1048.505 applies to high load engines only. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90, and manufacturers of emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, and must test their engines as specified in that part.

(c) Certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, is voluntary, but manufacturers who decide to certify are subject to all of the requirements indicated in this subpart with regard to the engines included in their certification. Manufacturers must clearly label their stationary SI engines as certified or non-certified engines.

(d) Manufacturers of natural gas fired stationary SI ICE who conduct voluntary certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, must certify their engines for operation using fuel that meets the definition of pipeline-quality natural gas. The fuel used for certifying stationary SI natural gas engines must meet the definition of pipeline-quality natural gas as described in §60.4248. In addition, the manufacturer must provide information to the owner and operator of the certified stationary SI engine including the specifications of the pipeline-quality natural gas to which the engine is certified and what adjustments the owner or operator must make to the engine when installed in the field to ensure compliance with the emission standards.

(e) Manufacturers of stationary SI ICE that are lean burn engines fueled by LPG who conduct voluntary certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, must certify their engines for operation using fuel that meets the specifications in 40 CFR 1065.720.

(f) Manufacturers may certify their engines for operation using gaseous fuels in addition to pipeline-quality natural gas; however, the manufacturer must specify the properties of that fuel and provide testing information showing that the engine will meet the emission standards specified in §60.4231(d) or (e), as applicable, when operating on that fuel. The manufacturer must also provide instructions for configuring the stationary engine to meet the emission standards on fuels that do not meet the pipeline-quality natural gas definition. The manufacturer must also provide information to the owner and operator of the certified stationary SI engine regarding the configuration that is most conducive to reduced emissions where the engine will be operated on gaseous fuels with different quality than the fuel that it was certified to.

(g) A stationary SI engine manufacturer may certify an engine family solely to the standards applicable to landfill/digester gas engines as specified in §60.4231(d) or (e), as applicable, but must certify their engines for operation using landfill/digester gas and must add a permanent label stating that the engine is for use only in landfill/digester gas applications. The label must be added according to the labeling requirements specified in 40 CFR 1048.135(b).

(h) For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

§ 60.4242 What other requirements must I meet if I am a manufacturer of stationary SI internal combustion engines?

(a) Stationary SI internal combustion engine manufacturers must meet the provisions of 40 CFR part 90 or 40 CFR part 1048, as applicable, as well as 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1048, except that engines certified pursuant to the voluntary certification procedures in §60.4241 are subject only to the provisions indicated in §60.4247 and are permitted to provide instructions to owners and operators allowing for deviations from certified configurations, if such deviations are consistent with the provisions of paragraphs §60.4241(c) through (f). Labels on engines certified to 40 CFR part 1048 must refer to stationary engines, rather than or in addition to nonroad engines, as appropriate.

(b) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR part 90 or 40 CFR part 1048 for that model year may certify any such family that contains both nonroad and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(c) Manufacturers of engine families certified to 40 CFR part 1048 may meet the labeling requirements referred to in paragraph (a) of this section for stationary SI ICE by either adding a separate label containing the information required in paragraph (a) of this section or by adding the words "and stationary" after the word "nonroad" to the label.

(d) For all engines manufactured on or after January 1, 2011, and for all engines with a maximum engine power greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, a stationary SI engine manufacturer that certifies an engine family solely to the standards applicable to emergency engines must add a permanent label stating that the engines in that family are for emergency use only. The label must be added according to the labeling requirements specified in 40 CFR 1048.135(b).

(e) All stationary SI engines subject to mandatory certification that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230. Stationary SI engines subject to standards in 40 CFR part 90 may use the provisions in 40 CFR 90.909. Manufacturers of stationary engines with a maximum engine power greater than 25 HP that are not certified to standards and other requirements under 40 CFR part 1048 are subject to the labeling provisions of 40 CFR 1048.20 pertaining to excluded stationary engines.

Compliance Requirements for Owners and Operators

§ 60.4243 What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

(a) If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in §60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.

(1) If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator.

(2) If you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance according to (a)(2)(i) through (iii) of this section, as appropriate.

(i) If you are an owner or operator of a stationary SI internal combustion engine less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required if you are an owner or operator.

(ii) If you are an owner or operator of a stationary SI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup to demonstrate compliance.

(iii) If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

(b) If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.

(1) Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.

(2) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according to the requirements specified in §60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of this section.

(i) If you are an owner or operator of a stationary SI internal combustion engine greater than 25 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance.

(ii) If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

(c) If you are an owner or operator of a stationary SI internal combustion engine that must comply with the emission standards specified in §60.4233(f), you must demonstrate compliance according paragraph (b)(2)(i) or (ii) of this section, except that if you comply according to paragraph (b)(2)(i) of this section, you demonstrate that your non-certified engine complies with the emission standards specified in §60.4233(f).

(d) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

(e) Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233.

(f) If you are an owner or operator of a stationary SI internal combustion engine that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated in this section, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(g) It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

(h) If you are an owner/operator of an stationary SI internal combustion engine with maximum engine power greater than or equal to 500 HP that is manufactured after July 1, 2007 and before July 1, 2008, and must comply with the emission standards specified in sections 60.4233(b) or (c), you must comply by one of the methods specified in paragraphs (h)(1) through (h)(4) of this section.

(1) Purchasing an engine certified according to 40 CFR part 1048. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

Testing Requirements for Owners and Operators

§ 60.4244 What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

(d) To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_a \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 1})$$

Where:

ER = Emission rate of NO_x in g/HP-hr.

C_d = Measured NO_x concentration in parts per million by volume (ppmv).

1.912×10⁻³ = Conversion constant for ppm NO_x to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

(e) To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_a \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 2})$$

Where:

ER = Emission rate of CO in g/HP-hr.

C_d = Measured CO concentration in ppmv.

1.164×10⁻³ = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

(f) For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_a \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 3})$$

Where:

ER = Emission rate of VOC in g/HP-hr.

C_d = VOC concentration measured as propane in ppmv.

1.833×10⁻³ = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

(g) If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \quad (\text{Eq. 4})$$

Where:

RF_i = Response factor of compound i when measured with EPA Method 25A.

C_{Mi} = Measured concentration of compound i in ppmv as carbon.

C_{Ai} = True concentration of compound i in ppmv as carbon.

$$C_{i,cor} = RF_i \times C_{i,meas} \quad (\text{Eq. 5})$$

Where:

C_{i,cor} = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C_{i,meas} = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{P_{eq}} = 0.6098 \times C_{i_{DSCM}} \quad (\text{Eq. 6})$$

Where:

CPeq= Concentration of compound i in mg of propane equivalent per DSCM.

Notification, Reports, and Records for Owners and Operators

§ 60.4245 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

(a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.

(1) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(2) Maintenance conducted on the engine.

(3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90 and 1048.

(4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

(b) For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

(c) Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.

(1) Name and address of the owner or operator;

(2) The address of the affected source;

(3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(4) Emission control equipment; and

(5) Fuel used.

(d) Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed.

General Provisions

§ 60.4246 What parts of the General Provisions apply to me?

Table 3 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

Mobile Source Provisions

§ 60.4247 What parts of the mobile source provisions apply to me if I am a manufacturer of stationary SI internal combustion engines?

(a) Manufacturers certifying to emission standards in 40 CFR part 90, including manufacturers certifying emergency engines below 130 HP, must meet the provisions of 40 CFR part 90.

(b) Manufacturers certifying to emission standards in 40 CFR part 1048 must meet the provisions of 40 CFR part 1048. Manufacturers of stationary SI internal combustion engines that are less than 100 HP participating in the voluntary certification program must meet the requirements in Table 4 to this subpart.

(c) For manufacturers of stationary SI internal combustion engines participating in the voluntary certification program and certifying engines to Table 1 to this subpart, Table 4 to this subpart shows which parts of the mobile source provisions in 40 CFR parts 1048, 1065, and 1068 apply to you. Compliance with the deterioration factor provisions under 40 CFR 1048.205(n) and 1048.240 will be required for engines built new on and after January 1, 2010. Prior to January 1, 2010, manufacturers of stationary internal combustion engines participating in the voluntary certification program have the option to develop their own deterioration factors based on an engineering analysis.

Definitions

§ 60.4248 What definitions apply to this subpart?

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

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) are given in 40 CFR 90.105. The values for certified emissions life for stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) certified to 40 CFR part 1048 are given in 40 CFR 1048.101(g). The certified emissions life for stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) certified under the voluntary manufacturer certification program of this subpart is 5,000 hours or 7 years, whichever comes first.

Certified stationary internal combustion engine means an engine that belongs to an engine family that has a certificate of conformity that complies with the emission standards and requirements in this part, or of 40 CFR part 90 or 40 CFR part 1048, as appropriate.

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any

regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

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 number 2 distillate oil.

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 carbon dioxide (CO₂).

Emergency stationary internal combustion engine means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Stationary SI ICE used for peak shaving are not considered emergency stationary ICE. Stationary ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Engine manufacturer means the manufacturer of the engine. See the definition of "manufacturer" in this section.

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.

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

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.

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

Manufacturer has the meaning given in section 216(1) of the Clean Air Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1048.801.

Model year means either: The calendar year in which the engine was originally produced, or the annual new model production period of the engine manufacturer if it is different than the calendar year. This must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year, and it must end by December 31 of the named calendar year. For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-

stationary engine, model year means the calendar year or new model production period in which the engine was originally produced.

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. Natural gas may be field or pipeline quality.

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Pipeline-quality natural gas means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions, and which is provided by a supplier through a pipeline. Pipeline-quality natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1,100 British thermal units per standard cubic foot.

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 June 12, 2006, with passive emission control technology for NO_x (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.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to either: a gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines 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 at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Stationary internal combustion engine test cell/stand means an engine test cell/stand, as defined in subpart PPPPP of this part, that test stationary ICE.

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

Subpart means 40 CFR part 60, subpart JJJJ.

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.

Volatile organic compounds means volatile organic compounds as defined in 40 CFR 51.100(s).

Voluntary certification program means an optional engine certification program that manufacturers of stationary SI internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG can choose to participate in to certify their engines to the emission standards in §60.4231(d) or (e), as applicable.

Table 1 to Subpart JJJJ of Part 60—NO_x, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines >25 HP

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards ^a					
			g/HP-hr			ppmvd at 15% O ₂		
			NO _x	CO	VOC ^d	NO _x	CO	VOC ^d
Non-Emergency SI Natural Gas ^b and Non-Emergency SI Lean Burn LPG ^b	100≤HP<500	7/1/2008	2.0	4.0	1.0	160	540	86
		1/1/2011	1.0	2.0	0.7	82	270	60
Non-Emergency SI Lean Burn Natural Gas and LPG	500≥HP<1,350	1/1/2008	2.0	4.0	1.0	160	540	86
		7/1/2010	1.0	2.0	0.7	82	270	60
Non-Emergency SI Natural Gas and Non-Emergency SI Lean Burn LPG (except lean burn 500=≥HP<1,350)	HP≥500 HP≥500	7/1/2007	2.0	4.0	1.0	160	540	86
		7/1/2010	1.0	2.0	0.7	82	270	60
Landfill/Digester Gas (except lean burn 500≥HP<1,350)	HP<500	7/1/2008	3.0	5.0	1.0	220	610	80
		1/1/2011	2.0	5.0	1.0	150	610	80
	HP≥500	7/1/2007	3.0	5.0	1.0	220	610	80
		7/1/2010	2.0	5.0	1.0	150	610	80
Landfill/Digester Gas Lean Burn	500≥HP<1,350	1/1/2008	3.0	5.0	1.0	220	610	80
		7/1/2010	2.0	5.0	1.0	150	610	80
Emergency	25>HP<130	1/1/2009	^c 10	387	N/A	N/A	N/A	N/A
			2.0	4.0	1.0	160	540	86
	HP≥130							

^aOwners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂.

^bOwners and operators of new or reconstructed non-emergency lean burn SI stationary engines with a site rating of greater than or equal to 250 brake HP located at a major source that are meeting the requirements of 40 CFR part 63, subpart ZZZZ, Table 2A do not have to comply with the CO emission standards of Table 1 of this subpart.

^cThe emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO_x+HC.

^dFor purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

Table 2 to Subpart JJJJ of Part 60—Requirements for Performance Tests

[As stated in §60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load]

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary SI internal combustion engine demonstrating compliance according to §60.4244.	a. limit the concentration of NO _x in the stationary SI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A or ASTM Method D6522–00(2005) ^a .	(a) If using a control device, the sampling site must be located at the outlet of the control device.
	ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B ^b of 40 CFR part 60, appendix A or ASTM Method D6522–00(2005) ^a .	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for NO _x concentration.	
	iii. Determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 19 of 40 CFR part 60.		
	iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03 (incorporated by reference, see §60.17).	(c) Measurements to determine moisture must be made at the same time as the measurement for NO _x concentration.	
	v. Measure NO _x at the exhaust of the stationary internal combustion engine.	(5) Method 7E of 40 CFR part 60, appendix A, Method D6522–00(2005) ^a , Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03 (incorporated by reference, see §60.17).	(d) Results of this test consist of the average of the three 1-hour or longer runs.	
	b. limit the concentration of CO in the stationary SI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A.	(a) If using a control device, the sampling site must be located at the outlet of the control

				device.
	ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3Bb of 40 CFR part 60, appendix A or ASTM Method D6522-00(2005) ^a .	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for CO concentration.	
	iii. Determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 19 of 40 CFR part 60.		
	iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03 (incorporated by reference, see §60.17).	(c) Measurements to determine moisture must be made at the same time as the measurement for CO concentration.	
	v. Measure CO at the exhaust of the stationary internal combustion engine.	(5) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522-00(2005) ^a , Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17).	(d) Results of this test consist of the average of the three 1-hour or longer runs.	
	c. limit the concentration of VOC in the stationary SI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A.	(a) If using a control device, the sampling site must be located at the outlet of the control device.
	ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B ^b of 40 CFR part 60, appendix A or ASTM Method D6522-00(2005) ^a .	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for VOC concentration.	
	iii. Determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 19 of 40 CFR part 60.		
	iv. If necessary,	(4) Method 4 of	(c) Measurements to	

	measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03 (incorporated by reference, see §60.17).	determine moisture must be made at the same time as the measurement for VOC concentration.	
	v. Measure VOC at the exhaust of the stationary internal combustion engine.	(5) Methods 25A and 18 of 40 CFR part 60, appendix A, Method 25A with the use of a methane cutter as described in 40 CFR 1065.265, Method 18 or 40 CFR part 60, appendix A, ^{cd} Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03 (incorporated by reference, see §60.17).	(d) Results of this test consist of the average of the three 1-hour or longer runs.	

^aASTM D6522–00 is incorporated by reference; see 40 CFR 60.17. Also, you may petition the Administrator for approval to use alternative methods for portable analyzer.

^bYou may use ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses, for measuring the O₂ content of the exhaust gas as an alternative to EPA Method 3B.

^cYou may use EPA Method 18 of 40 CFR part 60, appendix A, provided that you conduct an adequate presurvey test prior to the emissions test, such as the one described in OTM 11 on EPA's Web site (<http://www.epa.gov/ttn/emc/prelim/otm11.pdf>).

^dYou may use ASTM D6420–99 (2004), Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography/Mass Spectrometry as an alternative to EPA Method 18 for measuring total nonmethane organic.

Table 3 to Subpart JJJJ of Part 60—Applicability of General Provisions to Subpart JJJJ

[As stated in §60.4246, you must comply with the following applicable General Provisions]

General provisions citation	Subject of citation	Applies to subpart	Explanation
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4248.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and	Yes	Except that §60.7 only applies as specified in

	Recordkeeping		§60.4245.
§60.8	Performance tests	Yes	Except that §60.8 only applies to owners and operators who are subject to performance testing in subpart JJJJ.
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	Yes	Requirements are specified in subpart JJJJ.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	No	
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements	Yes	

Table 4 to Subpart JJJJ of Part 60—Applicability of Mobile Source Provisions for Manufacturers Participating in the Voluntary Certification Program and Certifying Stationary SI ICE to Emission Standards in Table 1 of Subpart JJJJ

[As stated in §60.4247, you must comply with the following applicable mobile source provisions if you are a manufacturer participating in the voluntary certification program and certifying stationary SI ICE to emission standards in Table 1 of subpart JJJJ]

Mobile source provisions citation	Subject of citation	Applies to subpart	Explanation
1048 subpart A	Overview and Applicability	Yes	
1048 subpart B	Emission Standards and Related Requirements	Yes	Except for the specific sections below.
1048.101	Exhaust Emission Standards	No	
1048.105	Evaporative Emission Standards	No	
1048.110	Diagnosing Malfunctions	No	
1048.140	Certifying Blue Sky Series Engines	No	
1048.145	Interim Provisions	No	
1048 subpart C	Certifying Engine Families	Yes	Except for the specific sections below.

1048.205(b)	AECD reporting	Yes	
1048.205(c)	OBD Requirements	No	
1048.205(n)	Deterioration Factors	Yes	Except as indicated in 60.4247(c).
1048.205(p)(1)	Deterioration Factor Discussion	Yes	
1048.205(p)(2)	Liquid Fuels as they require	No	
1048.240(b)(c)(d)	Deterioration Factors	Yes	
1048 subpart D	Testing Production-Line Engines	Yes	
1048 subpart E	Testing In-Use Engines	No	
1048 subpart F	Test Procedures	Yes	
1065.5(a)(4)	Raw sampling (refers reader back to the specific emissions regulation for guidance)	Yes	
1048 subpart G	Compliance Provisions	Yes	
1048 subpart H	Reserved		
1048 subpart I	Definitions and Other Reference Information	Yes	
1048 appendix I and II	Yes		
1065 (all subparts)	Engine Testing Procedures	Yes	Except for the specific section below.
1065.715	Test Fuel Specifications for Natural Gas	No	
1068 (all subparts)	General Compliance Provisions for Nonroad Programs	Yes	Except for the specific sections below.
1068.245	Hardship Provisions for Unusual Circumstances	No	
1068.250	Hardship Provisions for Small-Volume Manufacturers	No	
1068.255	Hardship Provisions for Equipment Manufacturers and Secondary Engine Manufacturers	No	

Attachment B
National Emission Standards for Hazardous Air Pollutants:
Stationary Reciprocating Internal Combustion Engines
[326 IAC 20-82] [40 CFR Part 63, Subpart ZZZZ]

Source Description and Location
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Source Name:	Indiana BioTown / BioTown Energy, LLC
Source Location:	North 100 West, Reynolds, IN 47980
County:	White
SIC Code:	4911
Operation Permit No.:	T 181-26924-00049
Permit Reviewer:	Kimberly Cottrell

NESHAP [40 CFR Part 63, Subpart ZZZZ]
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Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What This Subpart Covers

§ 63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

§ 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 or area 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.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

§ 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 located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) Existing stationary RICE.

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) New stationary RICE. (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) Reconstructed stationary RICE. (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(b) *Stationary RICE subject to limited requirements.* (1) An affected source which meets either of the criteria in paragraph (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(h).

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions; or

(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions 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(h) 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.

(3) A stationary RICE which is an existing spark ignition 4 stroke rich burn (4SRB) stationary RICE located at an area source, an existing spark ignition 4SRB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source, an existing spark ignition 2 stroke lean burn (2SLB) stationary RICE, an existing spark ignition 4 stroke lean burn (4SLB) stationary RICE, an existing compression ignition (CI) stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or 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, does not have to meet the requirements of this subpart and of subpart A of this part. No initial notification is necessary.

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that is a new or reconstructed stationary RICE located at an area source, or is a new or reconstructed stationary RICE located at a major source of HAP emissions and is a spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of less than 500 brake HP, a spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of less than 250 brake HP, or a 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP, a stationary RICE with a site rating of less than or equal to 500 brake HP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP, or a compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP, must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

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

(a) *Affected Sources.* (1) If you have an existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007.

(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(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.

Emission and Operating Limitations

§ 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

(a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.

(b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

(c) If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a and 2a to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE, an existing 4SLB stationary RICE, or an existing CI stationary RICE; a 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 emergency stationary RICE; or a limited use stationary RICE.

§ 63.6601 What emission limitations must I meet if I own or operate a 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than 500 brake HP located at a major source of HAP emissions?

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

General Compliance Requirements

§ 63.6605 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times, except during periods of startup, shutdown, and malfunction.

(b) If you must comply with emission limitations and operating limitations, you must operate and maintain your stationary RICE, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at all times, including during startup, shutdown, and malfunction.

Testing and Initial Compliance Requirements

§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

- (2) The test must not be older than 2 years.
- (3) The test must be reviewed and accepted by the Administrator.
- (4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.
- (5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

§ 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.

§ 63.6615 When must I conduct subsequent performance tests?

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

§ 63.6620 What performance tests and other procedures must I use?

- (a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.
- (b) Each performance test must be conducted according to the requirements in §63.7(e)(1) and under the specific conditions that this subpart specifies in Table 4. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.
- (c) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §63.7(e)(1).
- (d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.
- (e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 1})$$

Where:

C_i = concentration of CO or formaldehyde at the control device inlet,

C_o = concentration of CO or formaldehyde at the control device outlet, and

R = percent reduction of CO or formaldehyde emissions.

(2) You must normalize the carbon monoxide (CO) or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO₂). If pollutant concentrations are to be corrected to 15 percent oxygen and CO₂ concentration is measured in lieu of oxygen concentration measurement, a CO₂ correction factor is needed. Calculate the CO₂ correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 2})$$

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO₂ volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm³ / J (dscf/10⁶ Btu).

F_c = Ratio of the volume of CO₂ produced to the gross calorific value of the fuel from Method 19, dsm³ / J (dscf/10⁶ Btu).

(ii) Calculate the CO₂ correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{co_2} = \frac{5.9}{F_o} \quad (\text{Eq. 3})$$

Where:

X_{co2} = CO₂ correction factor, percent.

5.9 = 20.9 percent O₂ - 15 percent O₂, the defined O₂ correction value, percent.

(iii) Calculate the NO_x and SO₂ gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{adj} = C_d \frac{X_{co_2}}{\%CO_2} \quad (\text{Eq. 4})$$

Where:

%CO₂ = Measured CO₂ concentration measured, dry basis, percent.

(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

(1) Identification of the specific parameters you propose to use as operating limitations;

(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;

(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.

(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (e.g., operator adjustment, automatic controller adjustment, etc.) or unintentionally (e.g., wear and tear, error, etc.) on a routine basis or over time;

(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;

(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;

(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;

(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;

(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and

(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

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

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either oxygen or CO₂ at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of this section.

(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

(3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO₂ concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in §63.8.

(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.

(d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.

§ 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

(a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to Table 5 of this subpart.

(b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.

Continuous Compliance Requirements

§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously at all times that the stationary RICE is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b and Tables 2a and 2b of this subpart that apply to you according to methods specified in Table 6 of this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b and Tables 2a and 2b of this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(c) [Reserved]

(d) Consistent with §§63.6(e) and 63.7(e)(1), deviations from the emission or operating limitations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations.

Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR §94.11(a).

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate any stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing CI stationary RICE, an existing emergency stationary RICE, an existing limited use emergency stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed 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 or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

Notifications, Reports, and Records

§ 63.6645 What notifications must I submit and when?

(a) If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions or a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions, you must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified.

(b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.

(c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.

(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(f) 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 if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

§ 63.6650 What reports must I submit and when?

(a) You must submit each report in Table 7 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.

(2) The first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.

(3) Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown, or malfunction during the reporting period, the compliance report must include the information in §63.10(d)(5)(i).

(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.

(1) The date and time that each malfunction started and stopped.

(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.

(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.

(9) A brief description of the stationary RICE.

(10) A brief description of the CMS.

(11) The date of the latest CMS certification or audit.

(12) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(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?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(3), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.

(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.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

§ 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 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate any stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions: An existing 2SLB RICE, 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. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions except for the initial notification requirements: 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.

§ 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 means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

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 whose operation is limited to emergency situations and required testing and maintenance. 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 (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc. Stationary RICE used for peak shaving are not considered emergency stationary RICE. Stationary ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines. Emergency stationary RICE with a site-rating of more than 500 brake HP located at a major source of HAP emissions that were installed prior to June 12, 2006, 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 with a site-rating of more than 500 brake HP located at a major source of HAP emissions that were installed prior to June 12, 2006, may also operate an additional 50 hours per year in non-emergency situations. Emergency stationary RICE with a site-rating of more than 500 brake HP located at a major source of HAP emissions that were installed on or after June 12, 2006, must comply with requirements specified in 40 CFR 60.4243(d).

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.

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

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. Natural gas may be field or pipeline quality.

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NO_x) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_x, 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 C_3H_8 .

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 NO_x (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 means relating to either: A gasoline-fueled engine; or any other type of engine a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

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 1 to Subpart Z Z Z Z of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

[As stated in §63.6600, you must comply with the following emission limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions at 100 percent load plus or minus 10 percent]

For each...	You must meet the following emission limitations...
1. 4SRB stationary RICE	a. reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007;
	or
	b. limit the concentration of formaldehyde in the stationary RICE exhaust 350 ppbvd or less at 15 percent O ₂ .

Table 1b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

[As stated in §§63.6600, 63.6630 and 63.6640, you must comply with the following operating emission limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions]

For each...	You must meet the following operating limitation...
1. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O ₂ and using NSCR.	b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.
2. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or	Comply with any operating limitations approved by the Administrator.
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O ₂ and not using NSCR.	

Table 2a to Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions

[As stated in §§63.6600 and 63.6601, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent]

For each...	You must meet the following emission limitation...
1. 2SLB stationary RICE	a. reduce CO emissions by 58 percent or more;
	or
	b. limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O ₂ . If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O ₂ until June 15, 2007.

For each...	You must meet the following emission limitation...
2. 4SLB stationary RICE	a. reduce CO emissions by 93 percent or more;
	or
	b. limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O ₂ .
3. CI stationary RICE	a. reduce CO emissions by 70 percent or more;
	or
	b. limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O ₂ .

Table 2b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and 4SLB Burn Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions

[As stated in §§63.6600, 63.6601, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary]

For each...	You must meet the following operating limitation...
1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.
2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst	Comply with any operating limitations approved by the Administrator.

Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests

[As stated in §§63.6615 and 63.6620, you must comply with the following subsequent performance test requirements]

For each...	Complying with the requirement to...	You must...
1. 2SLB and 4SLB stationary RICE and CI stationary RICE	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually. ¹
2. 4SRB stationary RICE with a brake horsepower ≥5,000	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually. ¹
3. Stationary RICE (all stationary RICE subcategories and all brake horsepower ratings)	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually. ¹

¹After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

[As stated in §§63.6610, 63.6611, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE]

For each...	Complying with the requirement to...	You must...	Using...	According to the following requirements...
1. 2SLB, 4SLB, and CI stationary RICE	a. Reduce CO emissions	i. Measure the O ₂ at the inlet and outlet of the control device; and	(1) Portable CO and O ₂ analyzer	(a) Using ASTM D6522–00 (2005) ^a (incorporated by reference, see §63.14). Measurements to determine O ₂ must be made at the same time as the measurements for CO concentration.
		ii. Measure the CO at the inlet and the outlet of the control device	(1) Portable CO and O ₂ analyzer	(a) Using ASTM D6522–00 (2005) ^a (incorporated by reference, see §63.14) or Method 10 of 40 CFR, appendix A. The CO concentration must be at 15 percent O ₂ , dry basis.

For each...	Complying with the requirement to...	You must...	Using...	According to the following requirements...
2. 4SRB stationary RICE	a. Reduce formaldehyde emissions	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O ₂ at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00 (2005).	(a) Measurements to determine O ₂ concentration must be made at the same time as the measurements for formaldehyde concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the inlet and the outlet of the control device	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03 ^b , provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
3. Stationary RICE	a. Limit the concentration of formaldehyde in the stationary RICE exhaust	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O ₂ concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00 (2005)	(a) Measurements to determine O ₂ concentration must be made at the same time and location as the measurements for formaldehyde concentration.

For each...	Complying with the requirement to...	You must...	Using...	According to the following requirements...
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03 ^b , provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

^aYou may also use Methods 3A and 10 as options to ASTM–D6522–00 (2005). You may obtain a copy of ASTM–D6522–00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

^bYou may obtain a copy of ASTM–D6348–03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations and Operating Limitations

[As stated in §§63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following]

For each...	Complying with the requirement to...	You have demonstrated initial compliance if...
1. 2SLB and 4SLB stationary RICE and CI stationary RICE	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. the average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.

For each...	Complying with the requirement to...	You have demonstrated initial compliance if...
2. 2SLB and 4SLB stationary RICE and CI stationary RICE	a. Reduce CO emissions and not using oxidation catalyst	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
3. 2SLB and 4SLB stationary RICE and CI stationary RICE	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O ₂ or CO ₂ at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and
		ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
4. 4SRB stationary RICE	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
5. 4SRB stationary RICE	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.

For each...	Complying with the requirement to...	You have demonstrated initial compliance if...
6. Stationary RICE	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
7. Stationary RICE	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations and Operating Limitations

[As stated in §63.6640, you must continuously comply with the emissions and operating limitations as required by the following]

For each...	Complying with the requirement to...	You must demonstrate continuous compliance by...
1. 2SLB and 4SLB stationary RICE and CI stationary RICE	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved ¹ ; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and

For each...	Complying with the requirement to...	You must demonstrate continuous compliance by...
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
2. 2SLB and 4SLB stationary RICE and CI stationary RICE	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved ¹ ; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
3. 2SLB and 4SLB stationary RICE and CI stationary RICE	a. Reduce CO emissions and using a CEMS	i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction of CO emissions according to §63.6620; and
		ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period; and
		iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
4. 4SRB stationary RICE	a. Reduce formaldehyde emissions and using NSCR	i. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. 4SRB stationary RICE	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and

For each...	Complying with the requirement to...	You must demonstrate continuous compliance by...
		ii. reducing these data to 4-hour rolling averages;
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. 4SRB stationary RICE with a brake horsepower \geq 5,000	Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved ¹ .
7. Stationary RICE	Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit ¹ ; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. Stationary RICE	Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit ¹ ; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

¹After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

Table 7 to Subpart ZZZZ 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...
1. Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or	i. Semiannually according to the requirements in §63.6650(b).
	b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or	i. Semiannually according to the requirements in §63.6650(b).
	c. If you had a startup, shutdown or malfunction during the reporting period, the information in §63.10(d)(5)(i)	i. Semiannually according to the requirements in §63.6650(b).
2. An immediate startup, shutdown, and malfunction report if actions addressing the startup, shutdown, or malfunction were inconsistent with your startup, shutdown, or malfunction plan during the reporting period	a. Actions taken for the event; and	i. By fax or telephone within 2 working days after starting actions inconsistent with the plan.
	b. The information in §63.10(d)(5)(ii).	i. By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authorities. (§63.10(d)(5)(ii))
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	i. Annually, according to the requirements in §63.6650.

You must submit a(n)	The report must contain...	You must submit the report...
	b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and	i. See item 3.a.i.
	c. Any problems or errors suspected with the meters	i. See item 3.a.i.

Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ

[As stated in §63.6665, you must comply with the following applicable general provisions]

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.1	General applicability of the General Provisions	Yes	
§63.2	Definitions	Yes	Additional terms defined in §63.6675.
§63.3	Units and abbreviations	Yes	
§63.4	Prohibited activities and circumvention	Yes	
§63.5	Construction and reconstruction	Yes	
§63.6(a)	Applicability	Yes	
§63.6(b)(1)–(4)	Compliance dates for new and reconstructed sources	Yes	
§63.6(b)(5)	Notification	Yes	
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes	
§63.6(c)(1)–(2)	Compliance dates for existing sources	Yes	
§63.6(c)(3)–(4)	[Reserved]		
§36.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes	
§63.6(d)	[Reserved]		
§63.6(e)(1)	Operation and maintenance	Yes	
§63.6(e)(2)	[Reserved]		

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.6(e)(3)	Startup, shutdown, and malfunction plan	Yes	
§63.6(f)(1)	Applicability of standards except during startup shutdown malfunction (SSM)	Yes	
§63.6(f)(2)	Methods for determining compliance	Yes	
§63.6(f)(3)	Finding of compliance	Yes	
§63.6(g)(1)–(3)	Use of alternate standard	Yes	
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures and criteria	Yes	
§63.6(j)	Presidential compliance exemption	Yes	
§63.7(a)(1)–(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§63.6610 and 63.6611.
§63.7(a)(3)	CAA section 114 authority	Yes	
§63.7(b)(1)	Notification of performance test	Yes	
§63.7(b)(2)	Notification of rescheduling	Yes	
§63.7(c)	Quality assurance/test plan	Yes	
§63.7(d)	Testing facilities	Yes	
§63.7(e)(1)	Conditions for conducting performance tests	Yes	
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes	
§63.7(f)	Alternative test method provisions	Yes	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes	
§63.7(h)	Waiver of tests	Yes	
§63.8(a)(1)	Applicability of monitoring	Yes	Subpart ZZZZ contains specific

General provisions citation	Subject of citation	Applies to subpart	Explanation
	requirements		requirements for monitoring at §63.6625.
§63.8(a)(2)	Performance specifications	Yes	
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring for control devices	No	
§63.8(b)(1)	Monitoring	Yes	
§63.8(b)(2)–(3)	Multiple effluents and multiple monitoring systems	Yes	
§63.8(c)(1)	Monitoring system operation and maintenance	Yes	
§63.8(c)(1)(i)	Routine and predictable SSM	Yes	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes	
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	Yes	
§63.8(c)(2)–(3)	Monitoring system installation	Yes	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§63.8(c)(6)–(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§63.8(d)	CMS quality control	Yes	
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.
§63.8(f)(1)–(5)	Alternative monitoring method	Yes	
§63.8(f)(6)	Alternative to relative accuracy test	Yes	
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6635 and 63.6640.
§63.9(a)	Applicability and State delegation of notification requirements	Yes	
§63.9(b)(1)–(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.9(c)	Request for compliance extension	Yes	
§63.9(d)	Notification of special compliance requirements for new sources	Yes	
§63.9(e)	Notification of performance test	Yes	
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
§63.9(h)(1)–(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
§63.9(i)	Adjustment of submittal deadlines	Yes	
§63.9(j)	Change in previous information	Yes	
§63.10(a)	Administrative provisions for record keeping/reporting	Yes	
§63.10(b)(1)	Record retention	Yes	
§63.10(b)(2)(i)–(v)	Records related to SSM	Yes	
§63.10(b)(2)(vi)–(xi)	Records	Yes	
§63.10(b)(2)(xii)	Record when under waiver	Yes	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes	
§63.10(b)(3)	Records of applicability determination	Yes	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)–(4) and (9) are reserved.
§63.10(d)(1)	General reporting requirements	Yes	
§63.10(d)(2)	Report of performance test results	Yes	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.10(d)(4)	Progress reports	Yes	
§63.10(d)(5)	Startup, shutdown, and malfunction reports	Yes	
§63.10(e)(1) and (2)(i)	Additional CMS reports	Yes	
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes	Except that §63.10(e)(3)(i)(C) is reserved.
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes	
§63.11	Flares	No	
§63.12	State authority and delegations	Yes	
§63.13	Addresses	Yes	
§63.14	Incorporation by reference	Yes	
§63.15	Availability of information	Yes	

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document (TSD) for a New Source Construction and Part 70 Operating Permit

Source Description and Location

Source Name:	Indiana BioTown / BioTown Energy, LLC
Source Location:	North 100 West, Reynolds, IN 47980
County:	White
SIC Code:	4911
Operation Permit No.:	T 181-26924-00049
Permit Reviewer:	Kimberly Cottrell

Public Notice Information

On November 29, 2008, the Office of Air Quality (OAQ) had a notice published in Herald Journal newspaper in Monticello, Indiana, stating that the Indiana BioTown / BioTown Energy, LLC had applied for a New Source Construction and Part 70 Operating Permit for an anaerobic digester biogas energy center. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

US EPA Region 5 Comments and IDEM's Responses

On December 19, 2008, Charmagne Ackerman of the US EPA Region 5 submitted comments on the above referenced draft permit. The summary of the comments and IDEM, OAQ responses, including changes to the permit (language deleted is shown in ~~strikeout~~ and language added is shown in **bold**) are as follows:

EPA Comment 1: NSPS JJJJ Applicability

TSD cites 40 C.F.R 60.4233(a)

§60.4233(a) applies to units with max engine power less than or equal to 19 kW manufactured on or after 7/1/08. Units ICE001 and ICE002 are rated above 19kW. §63.4233(e) applies to units greater than or equal to 75kW and must comply with emission standards listed in Table 1.

TSD cites §60.4243(a), (g), and (h)

§60.4243(a) should be removed because it applies to units subject to §60.4233 (a), (b), or (c).

§60.4243(b) should be added because it affects units subject to §60.4233(d) and (e).

§60.4243(h) should be removed because ICE001 and ICE002 are not subject to §60.4233(b) or (c).

TSD missing §60.4244

ICE001 and ICE002 are subject to emission limitations in Table 1. To show compliance with the emission limitations, facility will need to conduct performance testing.

TSD missing Table 1
§63.4233(e) applies to units greater than or equal to 75kW and must comply with emission standards listed in Table 1.

IDEM Response 1:

IDEM agrees. The IDEM does not amend the Technical Support Document (TSD). The TSD is maintained to document the original review. This addendum to the TSD is used to document comments, responses to comments and changes made from the time the permit was drafted until a final decision is made. The applicability of NSPS JJJJ is amended as follows:

- (b) New Source Performance Standards (NSPS)
This source is subject to the New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines (40 CFR 60, Subpart JJJJ), which is incorporated by reference as 326 IAC 12. The emission units subject to this rule include the following:
- (1) One (1) Reciprocating Internal Combustion Engine (RICE), identified as ICE001 (ICE-BUB-EFS Train 001), permitted in 2008, with nominal electricity generating capacity of 1.6 megawatts (MW) and a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester Reactor and exhausting through stack S/V001A.
 - (2) One (1) Reciprocating Internal Combustion Engine (RICE), identified as ICE002 (ICE-BUB-EFS Train 002), permitted in 2008, with nominal electricity generating capacity of 1.6 megawatts (MW) and a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester Reactor and exhausting through stack S/V002A.

Nonapplicable portions of the NSPS will not be included in the permit. These units are subject to the following portions of Subpart JJJJ.

- (1) 40 CFR 60.4230(a)(4)(i);
- ~~(2) 40 CFR 60.4233(a);~~
- (2) 40 CFR 60.4233(e);**
- (3) 40 CFR 60.4234;
- (4) 40 CFR 60.4236;
- ~~(5) 40 CFR 60.4243 (a), (g), and (h);~~
- (5) 40 CFR 60.4243 (b) and (g);**
- (6) 40 CFR 60.4245;
- (7) 40 CFR 60.4246;
- (8) 40 CFR 60.4248;
- (9) Table 1;**
- ~~(9) (10) Table 2; and~~
- ~~(10) (11) Table 3~~

D.1.3 Standards of Performance for Stationary Spark Ignition Internal Combustion Engines [326 IAC 12-1] [40 CFR Part 60, Subpart JJJJ]

The Permittee shall comply with the following applicable portions of 40 CFR Part 60, Subpart JJJJ, which are incorporated by reference as 326 IAC 12-1-1 and included as Attachment A to this permit, for the Reciprocating Internal Combustion Engines (RICE), identified as ICE001 and ICE002:

- (a) 40 CFR 60.4230(a)(4)(i);
- ~~(b) 40 CFR 60.4233(a);~~

- (b) 40 CFR 60.4233(e);**
- (c) 40 CFR 60.4234;
- (d) 40 CFR 60.4236;
- ~~(e) 40 CFR 60.4243 (a), (g), and (h);~~
- (e) 40 CFR 60.4243 (b) and (g);**
- (f) 40 CFR 60.4245;
- (g) 40 CFR 60.4246;
- (h) 40 CFR 60.4248;
- (i) Table 1;**
- ~~(j)~~ **(j)** Table 2; and
- ~~(k)~~ **(k)** Table 3

EPA Comment 2: MACT ZZZZ Applicability

TSD cites the facility subject to §63.6590(a)(2)(i):

(2) *New stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

However, in §63.6645(f) it says the facility meets §63.6590(b) and subject to limited requirements. ICE001 and ICE002 are not "limited use" as the PTE calculated for them is based on 8760 hours of operation. §63.6645(f) should be removed.

Is §63.6600(c) applicable? It states...

(c) If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a and 2a to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE, an existing 4SLB stationary RICE, or an existing CI stationary RICE; a 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 emergency stationary RICE; or a limited use stationary RICE.

§63.6605 is should be added.

It requires compliance with all emission limitations and operating limitations. Also must use good engineering practices to minimize emissions if they are using a control device.

§63.6625(c) should be added. It contains monitoring 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.

IDEM Response 2:

IDEM agrees. As noted above, IDEM does not amend the TSD. The applicability of NESHAP/MACT ZZZZ is amended as follows:

- (c) National Emission Standards for Hazardous Air Pollutants (NESHAPs)
This source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ), which is incorporated by reference as 326 IAC 20-82. The emission units subject to this rule include the following:
- (1) One (1) Reciprocating Internal Combustion Engine (RICE), identified as ICE001 (ICE-BUB-EFS Train 001), permitted in 2008, with nominal electricity generating capacity of 1.6 megawatts (MW) and a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester Reactor and exhausting through stack S/V001A.
 - (2) One (1) Reciprocating Internal Combustion Engine (RICE), identified as ICE002 (ICE-BUB-EFS Train 002), permitted in 2008, with nominal electricity generating capacity of 1.6 megawatts (MW) and a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester Reactor and exhausting through stack S/V002A.

Nonapplicable portions of the NESHAP will not be included in the permit. These units are subject to the following portions of Subpart ZZZZ.

- (1) 40 CFR 63.6580;
- (2) 40 CFR 63.6585;
- (3) 40 CFR 63.6590(a)(2)(i);
- (4) 40 CFR 63.6595 (a)(3) and (c);
- (5) 40 CFR 63.6600(c);**
- (6) 40 CFR 63.6605;**
- (7) 40 CFR 63.6625(c);**
- ~~(5)~~**(8)** 40 CFR 63.6640(e);
- ~~(6)~~ 40 CFR 63.6645(f);
- ~~(7)~~**(9)** 40 CFR 63.6650 (a) and (g);
- ~~(8)~~**(10)** 40 CFR 63.6655(c);
- ~~(9)~~**(11)** 40 CFR 63.6660;
- ~~(10)~~**(12)** 40 CFR 63.6665;
- ~~(11)~~**(13)** 40 CFR 63.6670;
- ~~(12)~~**(14)** 40 CFR 63.6675;
- ~~(13)~~**(15)** Table 7; and
- ~~(14)~~**(16)** Table 8

D.1.5 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [326 IAC 20-82] [40 CFR Part 63, Subpart ZZZZ]

Pursuant to 40 CFR 63.6595, the Permittee shall comply upon startup with the following applicable portions of 40 CFR Part 63, Subpart ZZZZ, which are incorporated by reference as 326 IAC 20-82 and included as Attachment B to this permit, for the Reciprocating Internal Combustion Engines (RICE), identified as ICE001 and ICE002:

- (a) 40 CFR 63.6580;
- (b) 40 CFR 63.6585;

- (c) 40 CFR 63.6590(a)(2)(i);
- (d) 40 CFR 63.6595 (a)(3) and (c);
- (e) 40 CFR 63.6600(c);**
- (f) 40 CFR 63.6605;**
- (g) 40 CFR 63.6625(c);**
- ~~(h) (h)~~ 40 CFR 63.6640(e);
- ~~(f)~~ 40 CFR 63.6645(f);
- ~~(g)~~ **(i)** 40 CFR 63.6650 (a) and (g);
- ~~(h)~~ **(j)** 40 CFR 63.6655(c);
- ~~(i)~~ **(k)** 40 CFR 63.6660;
- ~~(j)~~ **(l)** 40 CFR 63.6665;
- ~~(k)~~ **(m)** 40 CFR 63.6670;
- ~~(l)~~ **(n)** 40 CFR 63.6675;
- ~~(m)~~ **(o)** Table 7; and
- ~~(n)~~ **(p)** Table 8

EPA Comment 3: Emergency Flares EFS001 and EFS002

In the TSD, Emergency Flares, EFS001 and EFS002, are listed as Permitted Emission Units and Pollution Control Equipment, but do not appear in section D of the draft permit. Will the flares have any operating requirements or emission limitations on them? There is also no mention of operating the flares if the back up boilers are in use.

IDEM Response 3:

There are currently no operating requirements or emission limitations for the Emergency Flares, EFS001 and EFS002. Potential emissions resulting from operation of these flares are negligible.

As noted above, IDEM does not amend the TSD. The following information clarifying state rule applicability for the Emergency Flares, EFS001 and EFS002, as well as the Back-up Boilers, BUB001 and BUB002, was inadvertently omitted from the TSD:

326 IAC 6-2 (Particulate Emissions Limitations for Source of Indirect Heating)

The Emergency Flares, EFS001 and EFS002, are not subject to 326 IAC 6-2 because they are not sources of indirect heating.

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), PM emissions from the Back-up Boilers, BUB001 and BUB002, shall be limited to 0.6 pounds per MMBtu heat input. This emission limit was calculated using the following equation:

$$Pt = \underline{1.09}$$

$Q^{0.26}$

where: Pt = pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input
Q = Total source maximum operating capacity rating in MMBtu/hr heat input.
= 10 MMBtu/hr

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

The Emergency Flares, EFS001 and EFS002, are not subject to 326 IAC 6-3-2 because they are not manufacturing processes.

IDEM Contact

Questions regarding this proposed permit can be directed to:

Kimberly Cottrell
Indiana Department Environmental Management
Office of Air Quality
100 North Senate Avenue
MC 61-53, Room 1003
Indianapolis, Indiana 46204-2251
Toll free (within Indiana): 1-800-451-6027 extension 3-0870
Or dial directly: (317) 233-0870
kcottrel@idem.in.gov

Please refer to New Source Construction and Part 70 Operating Permit No. T 181-26924-00049 in all correspondence.

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

**Technical Support Document (TSD)
for a New Source Construction and Part 70 Operating Permit**

Source Description and Location

Source Name:	Indiana BioTown / BioTown Energy, LLC
Source Location:	North 100 West, Reynolds, IN 47980
County:	White
SIC Code:	4911
Operation Permit No.:	T 181-26924-00049
Permit Reviewer:	Kimberly Cottrell

Existing Approvals

There have been no previous approvals issued to this source.

Permitted Emission Units and Pollution Control Equipment

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

- (a) Energy Center:
- (1) One (1) Reciprocating Internal Combustion Engine (RICE), identified as ICE001 (ICE-BUB-EFS Train 001), permitted in 2008, with nominal electricity generating capacity of 1.6 megawatts (MW) and a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester Reactor and exhausting through stack S/V001A.
 - (2) One (1) Reciprocating Internal Combustion Engine (RICE), identified as ICE002 (ICE-BUB-EFS Train 002), permitted in 2008, with nominal electricity generating capacity of 1.6 megawatts (MW) and a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester Reactor and exhausting through stack S/V002A.
- (b) Balance of Plant:
- (1) One (1) Emergency Flare, identified as EFS001 (ICE-BUB-EFS Train 001), permitted in 2008, with a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr) and a maximum flow rate of 440 cubic feet per minute (CFM) of biogas, combusting surplus biogas from Back-up Boiler, BUB001, and exhausting through stacks S/V001C and S/V002C.
 - (2) One (1) Emergency Flare, identified as EFS002 (ICE-BUB-EFS Train 002), permitted in 2008, with a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr) and a maximum flow rate of 440 cubic feet per minute (CFM) of biogas, combusting surplus biogas from Back-up Boiler, BUB002, and exhausting through stack S/V002C.

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

This source does not have any emission units that were constructed and/or is operated without a permit.

Insignificant Activities

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

- (a) Material Handling:
 - (1) Animal waste (BTAg C&SM) storage and handling, with a maximum capacity of 1,000 tons per week, including one (1) animal waste storage tank, identified as TAN003, permitted in 2008, with a maximum capacity of 10,000 gallons.
 - (2) Biological Fertilizer Supplement (BFS) storage and handling, with a maximum capacity of 30,000 tons per year, including one (1) BFS storage tank, identified as TAN004, permitted in 2008, with a maximum capacity of 10,000 gallons.
 - (3) One (1) open, agitated Feedstock Blending Tank, identified as TAN001, permitted in 2008, with a maximum capacity of 20,000 gallons.
 - (4) Two (2) open, agitated Feedstock Dilution Tanks, identified as TAN002A and TAN002B, permitted in 2008, each with a maximum capacity of 5,000 gallons, receiving blend-tank material from the Feedstock Blending Tank and dilution water from Effluent Recovery.
- (b) Anaerobic Digester:

One (1) in-ground Anaerobic Digester Reactor, identified as ADR001, permitted in 2008, with a maximum capacity of one hundred fifty (150) gallons per minute (GPM) of influent waste from Material Handling, generating biogas fuel for the Energy Center and wastewater for Effluent Recovery.
- (c) Effluent Recovery: AD wastewater treatment and effluent recovery system consisting of:
 - (1) One (1) Primary Solids Separator (FAN Separator), identified as PSS001, permitted in 2008, with a maximum capacity of one hundred fifty (150) gallons per minute (GPM), separating the biogas generated in the Anaerobic Digester Reactor and routing the biogas to the Energy Center and routing Anaerobic Digester Reactor effluent to the Secondary Solids Separator.
 - (2) One (1) Secondary Solids Separator, identified as SSS001, permitted in 2008, with a maximum capacity of one hundred fifty (150) gallons per minute (GPM), with an integrated subsystem of screens, clarifier, recycle streams, and additives, providing recoverable solids to be used as animal bedding, dilution water for the Feedstock Dilution Tank, and partially treated water for final treatment by Reverse Osmosis (RO).
 - (3) One (1) Tertiary Solids Separator, identified as TSS001, permitted in 2008, with a maximum capacity of one hundred fifty (150) gallons per minute (GPM), providing clean water through Reverse Osmosis (RO) and/or a Membrane Bioreactor.

- (4) One (1) Emergency Lagoon, identified as LA001, permitted in 2008, for effluent recovery during emergency episodes.
- (d) Balance of Plant:
 - (1) Two (2) ICE exhaust gas heat exchangers supplying heat to the anaerobic digester.
 - (2) One (1) Back-up Boiler, identified as BUB001 (ICE-BUB-EFS Train 001), permitted in 2008, with a maximum heat input capacity of five (5) million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester as a primary fuel and propane or No. 2 fuel oil as a secondary fuel, exhausting through stack S/V001B.
 - (3) One (1) Back-up Boiler, identified as BUB002 (ICE-BUB-EFS Train 002), permitted in 2008, with a maximum heat input capacity of five (5) million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester as a primary fuel and propane or No. 2 fuel oil as a secondary fuel, exhausting through stack S/V002B.

County Attainment Status

The source is located in White County.

Table 1: County Attainment Status	
Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
PM _{2.5}	Unclassifiable or attainment effective April 5, 2005, for PM _{2.5} .
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.	

- (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 emissions and NO_x emissions are considered when evaluating the rule applicability relating to ozone. White County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (b) PM_{2.5}

White County has been classified as attainment for PM_{2.5}. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} emissions, and the effective date of these rules was July 15th, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008, rule revisions require IDEM to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions until 326 IAC 2-2 is revised.

- (c) White County has been classified as attainment or unclassifiable for PM₁₀, SO₂, NO₂, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Enforcement Issues

There are no pending enforcement actions.

Stack Summary

The following table summarizes the stacks that correspond to the new emission units.

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
S/V001A	ICE001	40	1.7	8,495	450
S/V002A	ICE002	40	1.7	8,495	450
S/V001B	BUB001	10	0.5	4,225	973
S/V002B	BUB002	10	0.5	4,225	973
S/V001C	EFS001	30	0.5	13,375	973
S/V002C	EFS002	30	0.5	13,375	973

Unrestricted Potential Emissions

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A of this document.

This table reflects the unrestricted potential emissions of the source.

Pollutant	Emissions (ton/yr)
CO	>100; <250
NO _x	<100
PM	<100
PM ₁₀	<100
PM _{2.5}	<100

Pollutant	Emissions (ton/yr)
SO ₂	<100
VOC	<100
HAP: Formaldehyde	>10
Total HAP	<25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of carbon monoxide (CO) is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of a single HAP (formaldehyde) is equal to or greater than ten (10) tons per year; therefore, the source is subject to the provisions of 326 IAC 2-7.

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not counted toward the determination of Part 70 applicability.

Part 70 Permit Conditions

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

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

Potential to Emit After Issuance

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 Operating Permit, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process Emission Unit	CO	NO_x	PM	PM₁₀	PM_{2.5}	SO₂	VOC	F	H₂S	TRS	RSC
Internal Combustion Engines	184.94	46.73	2.099	2.099	2.099	30.79	42.12	0	0	0	0
Back-up Boilers	0.350	0.417	0.024	0.043	0.038	0.127	0.023	0	0	0	0
Emergency Flare Stacks	1.109	1.320	0.100	0.100	0.100	0.008	0.073	0	0	0	0

Table 4: Potential to Emit (tons/year)											
Process Emission Unit	CO	NO_x	PM	PM₁₀	PM_{2.5}	SO₂	VOC	F	H₂S	TRS	RSC
Total	186.39	48.47	2.223	2.242	2.237	30.92	42.22	0	0	0	0
Major Source Threshold	250	250	250	250	250	250	250	250	250	250	250

- (a) This stationary source is not major for PSD because the emissions of each pollutant are less than two hundred fifty (<250) tons per year, and it is not one of the twenty-eight (28) listed source categories.
- (b) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Federal Rule Applicability Determination

The following federal rules are applicable to the source:

- (a) National Emission Standards for Hazardous Air Pollutants (NESHAPs)
 There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) under 326 IAC 14 and 40 CFR Part 61 included in the permit for this proposed new source.
- (b) New Source Performance Standards (NSPS)
 This source is subject to the New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines (40 CFR 60, Subpart JJJJ), which is incorporated by reference as 326 IAC 12. The emission units subject to this rule include the following:
 - (1) One (1) Reciprocating Internal Combustion Engine (RICE), identified as ICE001 (ICE-BUB-EFS Train 001), permitted in 2008, with nominal electricity generating capacity of 1.6 megawatts (MW) and a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester Reactor and exhausting through stack S/V001A.
 - (2) One (1) Reciprocating Internal Combustion Engine (RICE), identified as ICE002 (ICE-BUB-EFS Train 002), permitted in 2008, with nominal electricity generating capacity of 1.6 megawatts (MW) and a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester Reactor and exhausting through stack S/V002A.

Nonapplicable portions of the NSPS will not be included in the permit. These units are subject to the following portions of Subpart JJJJ.

- (1) 40 CFR 60.4230(a)(4)(i);
- (2) 40 CFR 60.4233(a);
- (3) 40 CFR 60.4234;
- (4) 40 CFR 60.4236;
- (5) 40 CFR 60.4243 (a), (g), and (h);
- (6) 40 CFR 60.4245;
- (7) 40 CFR 60.4246;
- (8) 40 CFR 60.4248;

- (9) Table 2; and
- (10) Table 3

(c) National Emission Standards for Hazardous Air Pollutants (NESHAPs)

This source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ), which is incorporated by reference as 326 IAC 20-82. The emission units subject to this rule include the following:

- (1) One (1) Reciprocating Internal Combustion Engine (RICE), identified as ICE001 (ICE-BUB-EFS Train 001), permitted in 2008, with nominal electricity generating capacity of 1.6 megawatts (MW) and a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester Reactor and exhausting through stack S/V001A.
- (2) One (1) Reciprocating Internal Combustion Engine (RICE), identified as ICE002 (ICE-BUB-EFS Train 002), permitted in 2008, with nominal electricity generating capacity of 1.6 megawatts (MW) and a maximum heat input capacity of 15.84 million British thermal units per hour (MMBtu/hr), combusting biogas from the Anaerobic Digester Reactor and exhausting through stack S/V002A.

Nonapplicable portions of the NESHAP will not be included in the permit. These units are subject to the following portions of Subpart ZZZZ.

- (1) 40 CFR 63.6580;
- (2) 40 CFR 63.6585;
- (3) 40 CFR 63.6590(a)(2)(i);
- (4) 40 CFR 63.6595 (a)(3) and (c);
- (5) 40 CFR 63.6640(e);
- (6) 40 CFR 63.6645(f);
- (7) 40 CFR 63.6650 (a) and (g);
- (8) 40 CFR 63.6655(c);
- (9) 40 CFR 63.6660;
- (10) 40 CFR 63.6665;
- (11) 40 CFR 63.6670;
- (12) 40 CFR 63.6675;
- (13) Table 7; and
- (14) Table 8

(d) Compliance Assurance Monitoring (CAM)

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

- (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
- (2) is subject to an emission limitation or standard for that pollutant; and
- (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The proposed new source construction will not include any control devices; therefore, the requirements of 40 CFR Part 64, CAM, are not applicable to any of the emission units at this source.

State Rule Applicability - Entire Source

The following state rules are applicable to the source:

326 IAC 1-6-3 (Preventive Maintenance Plan)

The source is subject to 326 IAC 1-6-3.

326 IAC 1-5-2 (Emergency Reduction Plans)

The source is subject to 326 IAC 1-5-2.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. In accordance with the compliance schedule specified in 326 IAC 2-6-3, an emission statement must be submitted triennially by July 1 beginning in 2010 and every 3 years/every year after. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

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

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

326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), the Permittee shall be in violation of 326 IAC 6-4 (Fugitive Dust Emissions) if any of the criteria specified in 326 IAC 6-4-2(1) through (4) are violated pursuant to 326 IAC 6-4-5(c). Observations of visible emissions crossing the property line of the source at or near ground level must be made by a qualified representative of IDEM.

326 IAC 9 (Carbon Monoxide Emission Limits)

Pursuant to 326 IAC 9 (Carbon Monoxide Emission Limits), the source is subject to this rule because it is a stationary source which emits CO emissions and commenced operation after March 21, 1972. Under this rule, there is not a specific emission limit because the source is not an operation listed under 326 IAC 9-1-2.

State Rule Applicability – Individual Facilities

The following state rules are applicable to the source:

326 IAC 2-2 (PSD)

PSD applicability is discussed under the Permit Level Determination – PSD section.

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

The operation of the internal combustion engines (ICE) will emit greater than ten (10) tons per year of formaldehyde.; therefore, 326 IAC 2-4.1 would apply to each internal combustion engine (ICE). However, pursuant to 326 IAC 2-4.1-1(b)(2), because these internal combustion engines (ICE) are specifically regulated by NESHAP 40 CFR 63, Subpart ZZZZ, which was issued pursuant to Section 112(d) of the CAA, these internal combustion engines (ICE) are exempt from the requirements of 326 2-4.1.

326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations)

The potential to emit of SO₂ for each internal combustion engine (ICE) is less than 25 tons per year per individual unit; therefore, the requirements of 326 IAC 7-1.1-2 do not apply to the engines.

326 IAC 8-1-6 (New facilities; general reduction requirements)

The potential to emit of VOC for each internal combustion engine (ICE) is less than 25 tons per year per individual unit; therefore, the requirements of 326 IAC 8-1-6 (BACT) do not apply to the engines.

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.

Compliance Determination Requirements

There are no compliance determination requirements included in this permit for individual emission units.

Compliance Monitoring Requirements

There are no compliance monitoring requirements included in this permit for individual emission units.

Conclusion and Recommendation

The construction of this stationary anaerobic digester biogas energy center shall be subject to the conditions of the attached proposed New Source Construction and Part 70 Operating Permit No. T 181-26924-00049.

The staff recommends to the Commissioner that the New Source Construction and Part 70 Operating Permit No. T 181-26924-00049 be approved. This recommendation is based on the following facts and conditions:

- (1) Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.
- (2) An application for the purposes of this review was received on August 28, 2008. Additional information was received on October 30, 2008.

A copy of the preliminary findings is also available on the Internet at:
www.in.gov/idem/permits/air/pending.html.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at:
www.in.gov/idem/permits/guide/.

IDEM Contact

Questions regarding this proposed permit can be directed to:

Kimberly Cottrell
Indiana Department Environmental Management
Office of Air Quality
100 North Senate Avenue
MC 61-53, Room 1003
Indianapolis, Indiana 46204-2251
Toll free (within Indiana): 1-800-451-6027 extension 3-0870
Or dial directly: (317) 233-0870
kcottrel@idem.in.gov

Please refer to New Source Construction and Part 70 Operating Permit No. T 181-26924-00049 in all correspondence.

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

Appendix A – Emission Calculations
Technical Support Document (TSD)
New Source Construction and Part 70 Operating Permit

Source Description and Location

Company Name: Indiana BioTown / BioTown Energy, LLC
Address City IN Zip: North 100 West, Reynolds, IN 47980
County: White
SIC / NAICS Code: 4911 221119
Permit Number: T 181-26924-00049
Permit Reviewer: Kimberly Cottrell
Date: November 3, 2008

Summary of Potential to Emit

The tables below summarize the potential to emit calculations submitted by Indiana BioTown / BioTown Energy, LLC. The subsequent pages of this document are the complete calculations provided by Indiana BioTown / BioTown Energy, LLC. IDEM has reviewed these calculations and verified their accuracy.

Process / Emission Unit	Limited Potential To Emit (ton/yr)							Single HAP	Single HAP Name	Combination HAPs
	CO	NO _x	PM	PM ₁₀	PM _{2.5}	SO ₂	VOC			
Internal Combustion Engines (ICE)	184.94	46.73	2.099	2.099	2.099	30.79	42.12	11.095	Formaldehyde	15.168
Back-up Boilers (BUB)	0.350	0.417	0.024	0.043	0.038	0.127	0.023	0.008	Formaldehyde	0.009
Emergency Flare Stacks (EFS)	1.109	1.320	0.100	0.100	0.100	0.008	0.073	0.024	Formaldehyde	0.025
Totals:	186.39	48.47	2.223	2.242	2.237	30.92	42.22	11.13		15.20
PSD Major Source Thresholds:	250	250	250	250	250	250	250			

Process Overview

Material Handling

BTA _g C&S _M feedstock:	1,000 ton/wk	27% solids	
BFS feedstock:	<u>30,000 ton/yr</u>	29% solids	delivered by truck to storage tank
	18,721 lb/hr		
	82,000 ton/yr		
	22,740 ton/yr	<i>solids portion</i>	
	<u>Phase 1</u>	<u>Phase 2</u>	
BTA _g C&S _M Feedstock Storage Tank:	10,000 gallon	10,000 gallon	
BFS Feedstock Storage Tank:	10,000 gallon	10,000 gallon	
Feedstock Blend Tank:	20,000 gallon	20,000 gallon	
Feedstock Dilution Tank:	5,000 gallon	5,000 gallon	
Continuous Feed Rate to the Anaerobic Digester:	75 GPM	150 GPM	

Notes: All tanks are open, agitated tanks

Phase 2 will double the tank storage capacities

Anaerobic Digester Reactor

AD influent capacity:	75 GPM	12% solids	Phase 1	Conversion Factors: 1 CF = 7.48 gallons
	150 GPM	12% solids	Phase 2	
	Each cell of the ADR will have a 75 GPM capacity.			
Residence time:	22 days			
Biodegradation coefficient:	0.65 fraction of fuel that can volatilize to biogas fuel			
Biogas formation rate:	15.00 CF/lb biodegradable material			
Biodegradable material:	22,740 ton/yr			
Biogas production rate:	1,298 CFM	maximum		Biogas Composition 60% methane 40% CO ₂ < 125 ppmv TRS (H ₂ S) negligible FBN negligible moisture
	880 CFM	nominal		
Heating value:	600 Btu/CF			
	46.73 MMBtu/hr	maximum		
	31.68 MMBtu/hr	nominal		

Energy Center

Emission Units:	2 Internal Combustion Engines (ICE)	Conversion Factors: 746 W = 1 hp
Capacity:	1.7 MW (nominal) each 2232 hp (nominal) each 235,181 Btu/min (nominal) each 14.11 MMBtu/hr (nominal) each 15.84 MMBtu/hr (limited) each	
Operating Hours:	8760 hr/yr each	
Fuel Source:	Biogas from Anaerobic Digester Reactor (ADR)	
Biogas heating value:	600 Btu/CF	
	NSPS (40 CFR 60) JJJJ: hp > 500 hp, manufacture dates 7/1/2007 and 7/1/2010	
	NESHAP (40 CFR 63) ZZZZ: new stationary RICE (constr. after 12/19/2002); 4SLB; >500hp; digester gas	

Effluent Recovery

Primary Solids Separator:	75 GPM / cell	5% solids (33 lb/min dry)
Secondary Solids Separator:	4 GPM / cell	30% solids (17 lb/min dry)
Tertiary Solids Separator:	4 GPM / cell	30% solids (17 lb/min dry)
Emergency Lagoon:	75 GPM / cell	
Dry material storage:	17 lb/min (dry)	

Balance of Plant

Emission Units:	2 Back-up Boilers (BUB)	
Capacity:	5 MMBtu/hr each	
Operating Hours:	500 hr/yr each	
Primary Fuel Source:	Biogas from Anaerobic Digester Reactor (ADR)	
Secondary Fuel Source:	propane or No. 2 fuel oil	
	$[326 \text{ IAC } 6-2-4] \quad Pt = \frac{1.09}{Q^{0.26}} = 0.6$	calculated maximum allowable 0.6
	Where: Pt = Pounds of particulate matter emitted per million Btu heat input (lb/MMBtu). Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr).	
Emission Units:	2 Emergency Flare Stacks (EFS)	
Capacity:	15.84 MMBtu/hr (limited) each 440 CFM each	
Operating Hours:	500 hr/yr each	
Fuel Source:	Biogas from Anaerobic Digester Reactor (ADR)	

ESG IBT Renewable Energy Center Facility PTE Air Emission Condition														
Pollutant		ICE			BUB			EFS			Source			
		GEN001 & GEN002			BUB001 & BUB002			EFS001 & EFS002			Total			
		S/V001A & S/V002A			S/V001B & S/V002B			S/V001C & S/V002C						
		lb/MM Btu	pph	tpy	lb/MM Btu	pph	tpy	lb/MM Btu	pph	tpy	lb/MM Btu	pph	tpy	
Criteria	PM	0.0170	0.479	2.10	0.0236	0.236	0.06	0.0127	0.401	0.10	0.0236	1.12	2.26	
	PM ₁₀	0.0170	0.479	2.10	0.0171	0.171	0.04	0.0127	0.401	0.10	0.0171	1.05	2.24	
	PM _{2.5}	0.0170	0.479	2.10	0.0153	0.153	0.04	0.0127	0.401	0.10	0.0170	1.03	2.24	
	SO ₂	0.2491	7.029	30.79	0.0507	0.507	0.13	0.0010	0.032	0.01	0.2491	7.57	30.92	
	NO _x	0.3780	10.669	46.73	0.1667	1.667	0.42	0.1667	5.280	1.32	0.3780	17.62	48.47	
	CO	1.4961	42.223	184.94	0.1400	1.400	0.35	0.1400	4.435	1.11	1.4961	48.06	186.39	
	VOC	0.3408	9.617	42.12	0.0092	0.092	0.02	0.0092	0.290	0.07	0.3408	10.00	42.22	
PPE HAP	As	NR	NR	NR	4.00E-06	4.00E-05	1.00E-05	3.33E-07	1.06E-05	2.64E-06	4.00E-06	0.00	0.00	
	Be	NR	NR	NR	3.00E-06	3.00E-05	7.50E-06	2.00E-08	6.34E-07	1.58E-07	3.00E-06	3.06E-05	7.66E-06	
	Cd	NR	NR	NR	3.00E-06	3.00E-05	7.50E-06	1.83E-06	5.81E-05	1.45E-05	3.00E-06	8.81E-05	2.20E-05	
	Cr	NR	NR	NR	3.00E-06	3.00E-05	7.50E-06	2.33E-06	7.39E-05	1.85E-05	3.00E-06	1.04E-04	2.60E-05	
	Co	NR	NR	NR	1.40E-07	1.40E-06	3.50E-07	1.40E-07	4.44E-06	1.11E-06	1.40E-07	5.84E-06	1.46E-06	
	Pb	NR	NR	NR	9.00E-06	3.10E-04	7.75E-05	8.33E-07	2.64E-05	6.60E-06	9.00E-06	3.36E-04	8.41E-05	
	Mn	NR	NR	NR	6.00E-06	3.00E-05	7.50E-06	6.33E-07	2.01E-05	5.02E-06	6.00E-06	5.01E-05	1.25E-05	
	Ni	NR	NR	NR	3.50E-06	6.00E-05	1.50E-05	3.50E-06	1.11E-04	2.77E-05	3.50E-06	1.71E-04	4.27E-05	
	Total PPE HAP	NR	NR	NR	6.33E-05	5.31E-04	1.33E-04	NR	3.05E-04	7.62E-05	3.16E-05	8.36E-04	2.09E-04	
	Hg	NR	NR	NR	3.00E-06	3.10E-04	7.75E-05	4.33E-07	1.37E-05	3.43E-06	3.00E-06	3.24E-04	8.09E-05	
	Se	NR	NR	NR	1.50E-05	3.00E-05	7.50E-06	4.00E-08	1.27E-06	3.17E-07	1.50E-05	3.13E-05	7.82E-06	
	Total VI HAP	NR	NR	NR	3.60E-05	3.40E-04	8.50E-05	NR	1.50E-05	3.75E-06	1.80E-05	3.55E-04	8.87E-05	
	Hazardous	Acetaldehyde	1.42E-02	4.01E-01	1.76	NR	NR	NR	NR	NR	NR	1.42E-02	0.40	1.76
		Acrolein	8.74E-03	2.47E-01	1.08	NR	NR	NR	NR	NR	NR	8.74E-03	0.25	1.08
Benzene		7.48E-04	2.11E-02	9.25E-02	3.50E-06	3.50E-05	8.75E-06	3.50E-06	1.11E-04	2.77E-05	7.48E-04	2.13E-02	9.25E-02	
Biphenyl		3.60E-04	1.02E-02	4.45E-02	NR	NR	NR	NR	NR	NR	3.60E-04	1.02E-02	4.45E-02	
1,3-Butadiene		4.54E-04	1.28E-02	5.61E-02	NR	NR	NR	NR	NR	NR	4.54E-04	1.28E-02	5.61E-02	
Carbon Tetrachloride		6.24E-05	1.76E-03	7.71E-03	NR	NR	NR	NR	NR	NR	6.24E-05	1.76E-03	7.71E-03	
Chlorobenzene		5.17E-05	1.46E-03	6.39E-03	NR	NR	NR	NR	NR	NR	5.17E-05	1.46E-03	6.39E-03	
Chloroform		4.85E-05	1.37E-03	5.99E-03	NR	NR	NR	NR	NR	NR	4.85E-05	1.37E-03	5.99E-03	
Dichlorobenzene		NR	NR	NR	2.00E-06	2.00E-05	5.00E-06	2.00E-06	6.34E-05	1.58E-05	2.00E-06	8.34E-05	2.08E-05	
1,3-Dichloropropene		4.49E-05	1.27E-03	5.55E-03	NR	NR	NR	NR	NR	NR	4.49E-05	1.27E-03	5.55E-03	
Ethylbenzene		6.24E-05	1.76E-03	7.71E-03	4.54E-07	4.54E-06	1.14E-06	NR	NR	NR	6.24E-05	1.77E-03	7.71E-03	
Ethylene Dibromide		7.53E-05	2.13E-03	9.31E-03	NR	NR	NR	NR	NR	NR	7.53E-05	2.13E-03	9.31E-03	
Formaldehyde		8.98E-02	2.53	11.10	2.36E-04	2.36E-03	5.89E-04	1.25E-04	3.96E-03	9.90E-04	8.98E-02	2.54	11.10	
Hexane		1.89E-02	5.33E-02	2.33E-01	3.00E-03	3.00E-02	7.50E-03	3.00E-03	9.50E-02	2.38E-02	3.00E-03	1.78E-01	2.65E-01	
Methanol		4.25E-03	1.20E-01	5.25E-01	NR	NR	NR	NR	NR	NR	4.25E-03	1.20E-01	5.25E-01	
Methylene Chloride		3.40E-05	9.60E-04	4.20E-03	NR	NR	NR	NR	NR	NR	3.40E-05	9.60E-04	4.20E-03	
Naphthalene		1.26E-04	3.57E-03	1.56E-02	8.07E-06	8.07E-05	2.02E-05	1.02E-06	3.22E-05	8.05E-06	1.26E-04	3.68E-03	1.57E-02	
Phenol		4.25E-05	1.20E-03	5.25E-03	NR	NR	NR	NR	NR	NR	4.25E-05	1.20E-03	5.25E-03	
POM		1.30E-04	3.68E-03	1.61E-02	4.33E-07	4.33E-06	1.08E-06	1.47E-07	4.66E-06	1.16E-06	1.30E-04	3.69E-03	1.61E-02	
Styrene		4.01E-05	1.13E-03	4.96E-03	1.47E-07	1.47E-06	3.68E-07	NR	NR	NR	4.01E-05	1.13E-03	4.96E-03	
Tetrachloroethane		4.22E-06	1.19E-04	5.21E-04	NR	NR	NR	NR	NR	NR	4.22E-06	1.19E-04	5.21E-04	
1,1,2,2-TCA		6.80E-05	1.92E-03	8.41E-03	NR	NR	NR	NR	NR	NR	6.80E-05	1.92E-03	8.41E-03	
Toluene		6.94E-04	1.96E-02	8.57E-02	4.43E-05	4.43E-04	1.11E-04	5.67E-06	1.80E-04	4.49E-05	6.94E-04	2.02E-02	8.59E-02	
1,1,1-TCA		NR	NR	NR	1.69E-06	7.79E-06	1.95E-06	NR	NR	NR	1.69E-06	7.79E-06	1.95E-06	
1,1,2-TCA		5.41E-05	1.53E-03	6.68E-03	NR	NR	NR	NR	NR	NR	5.41E-05	1.53E-03	6.68E-03	
2,2,4-Trimethylpentane		4.25E-04	1.20E-02	5.25E-02	NR	NR	NR	NR	NR	NR	4.25E-04	1.20E-02	5.25E-02	
Vinyl Chloride		2.53E-05	7.15E-04	3.13E-03	NR	NR	NR	NR	NR	NR	2.53E-05	7.15E-04	3.13E-03	
Xylenes		2.53E-05	8.83E-03	3.87E-02	7.79E-07	2.93E-03	7.32E-04	NR	NR	NR	3.13E-04	8.83E-03	3.87E-02	
Total OHAP		0.1224	3.463	15.17	0.0033	0.036	0.01	0.0031	0.099	0.02	0.1238	3.60	15.20	
Total HAP		0.1224	3.463	15.17	0.0034	0.037	0.01	0.0031	0.100	0.02	0.1239	3.60	15.20	

ESG IBT Renewable Energy Center Facility PTE Air Emission Condition														
Pollutant		ICE			BUB			EFS			Unit			
		GEN001 or GEN002			BUB001 or BUB002			EFS001 or EFS002			Total			
		S/V001A or S/V002A			S/V001B or S/V002B			S/V001C or S/V002C						
		lb/MM Btu	pph	tpy	lb/MM Btu	pph	tpy	lb/MM Btu	pph	tpy	lb/MM Btu	pph	tpy	
Criteria	PM	0.0170	0.24	1.05	0.0236	0.118	0.03	0.0127	0.201	0.050	0.0236	0.269	1.18	
	PM ₁₀	0.0170	0.24	1.05	0.0171	0.086	0.02	0.0127	0.201	0.050	0.0171	0.269	1.18	
	PM _{2.5}	0.0170	0.24	1.05	0.0153	0.076	0.02	0.0127	0.201	0.050	0.0170	0.269	1.18	
	SO ₂	0.2491	3.51	15.39	0.0507	0.254	0.06	0.0010	0.016	0.004	0.2491	3.942	17.27	
	NO _x	0.3780	5.33	23.36	0.1667	0.833	0.21	0.1667	2.640	0.660	0.3780	5.983	26.21	
	CO	1.4961	21.11	92.47	0.1400	0.700	0.18	0.1400	2.218	0.554	1.4961	23.680	103.72	
	VOC	0.3408	4.81	21.06	0.0092	0.046	0.01	0.0092	0.145	0.036	0.3408	5.394	23.62	
PPE HAP	As	NR	NR	NR	4.00E-06	2.00E-05	5.00E-06	3.33E-07	5.28E-06	1.32E-06	4.00E-06	2.00E-05	5.00E-06	
	Be	NR	NR	NR	3.00E-06	1.50E-05	3.75E-06	2.00E-08	3.17E-07	7.92E-08	3.00E-06	1.50E-05	3.75E-06	
	Cd	NR	NR	NR	3.00E-06	1.50E-05	3.75E-06	1.83E-06	2.90E-05	7.26E-06	3.00E-06	2.90E-05	7.25E-06	
	Cr	NR	NR	NR	3.00E-06	1.50E-05	3.75E-06	2.33E-06	3.70E-05	9.24E-06	3.00E-06	3.69E-05	9.23E-06	
	Co	NR	NR	NR	1.40E-07	7.00E-07	1.75E-07	1.40E-07	2.22E-06	5.54E-07	1.40E-07	2.22E-06	5.54E-07	
	Pb	NR	NR	NR	9.00E-06	1.55E-04	3.88E-05	8.33E-07	1.32E-05	3.30E-06	9.00E-06	1.55E-04	3.88E-05	
	Mn	NR	NR	NR	6.00E-06	1.50E-05	3.75E-06	6.33E-07	1.00E-05	2.51E-06	6.00E-06	1.50E-05	3.75E-06	
	Ni	NR	NR	NR	3.50E-06	3.00E-05	7.50E-06	3.50E-06	5.54E-05	1.39E-05	3.50E-06	5.54E-05	1.38E-05	
	Total PPE HAP	NR	NR	NR	3.16E-05	2.66E-04	6.64E-05	9.63E-06	1.52E-04	3.81E-05	3.16E-05	3.29E-04	8.21E-05	
	Hg	NR	NR	NR	3.00E-06	1.55E-04	3.88E-05	4.33E-07	6.86E-06	1.72E-06	3.00E-06	1.55E-04	3.88E-05	
VI HAP	Se	NR	NR	NR	1.50E-05	1.50E-05	3.75E-06	4.00E-08	6.34E-07	1.58E-07	1.50E-05	1.50E-05	3.75E-06	
	Total VI HAP	NR	NR	NR	1.80E-05	1.70E-04	4.25E-05	4.73E-07	7.50E-06	1.80E-05	1.70E-04	4.25E-05		
Hazardous	Acetaldehyde	1.42E-02	2.01E-01	8.78E-01	NR	NR	NR	NR	NR	NR	1.42E-02	2.25E-01	9.85E-01	
	Acrolein	8.74E-03	1.23E-01	5.40E-01	NR	NR	NR	NR	NR	NR	8.74E-03	1.38E-01	6.06E-01	
	Benzene	7.48E-04	1.06E-02	4.62E-02	3.50E-06	1.75E-05	4.38E-06	3.50E-06	5.54E-05	1.39E-05	7.48E-04	1.18E-02	5.19E-02	
	Biphenyl	3.60E-04	5.09E-03	2.23E-02	NR	NR	NR	NR	NR	NR	3.60E-04	5.70E-03	2.50E-02	
	1,3-Butadiene	4.54E-04	6.40E-03	2.81E-02	NR	NR	NR	NR	NR	NR	4.54E-04	7.18E-03	3.15E-02	
	Carbon Tetrachloride	6.24E-05	8.80E-04	3.86E-03	NR	NR	NR	NR	NR	NR	6.24E-05	9.87E-04	4.33E-03	
	Chlorobenzene	5.17E-05	7.29E-04	3.19E-03	NR	NR	NR	NR	NR	NR	5.17E-05	8.18E-04	3.58E-03	
	Chloroform	4.85E-05	6.84E-04	2.99E-03	NR	NR	NR	NR	NR	NR	4.85E-05	7.67E-04	3.36E-03	
	Dichlorobenzene	NR	NR	NR	2.00E-06	1.00E-05	2.50E-06	2.00E-06	3.17E-05	7.92E-06	2.00E-06	3.17E-05	7.91E-06	
	1,3-Dichloropropene	4.49E-05	6.33E-04	2.77E-03	NR	NR	NR	NR	NR	NR	4.49E-05	7.10E-04	3.11E-03	
	Ethylbenzene	6.24E-05	8.80E-04	3.86E-03	4.54E-07	2.27E-06	5.68E-07	NR	NR	NR	6.24E-05	9.87E-04	4.33E-03	
	Ethylene Dibromide	7.53E-05	1.06E-03	4.65E-03	NR	NR	NR	NR	NR	NR	7.53E-05	1.19E-03	5.22E-03	
	Formaldehyde	8.98E-02	1.27	5.55	2.36E-04	1.18E-03	2.95E-04	1.25E-04	1.98E-03	4.95E-04	8.98E-02	1.42	6.22	
	Hexane	1.89E-03	2.66E-02	1.17E-01	3.00E-03	1.50E-02	3.75E-03	3.00E-03	4.75E-02	1.19E-02	3.00E-03	4.75E-02	1.35E-01	
	Methanol	4.25E-03	6.00E-02	2.63E-01	NR	NR	NR	NR	NR	NR	4.25E-03	6.73E-02	2.95E-01	
	Methylene Chloride	3.40E-05	4.80E-04	2.10E-03	NR	NR	NR	NR	NR	NR	3.40E-05	5.38E-04	2.36E-03	
	Naphthalene	1.26E-04	1.78E-03	7.82E-03	8.07E-06	4.04E-05	1.01E-05	1.02E-06	1.61E-05	4.03E-06	1.26E-04	2.00E-03	8.77E-03	
	Phenol	4.25E-05	6.00E-04	2.63E-03	NR	NR	NR	NR	NR	NR	4.25E-05	6.73E-04	2.95E-03	
	POM	1.30E-04	1.84E-03	8.06E-03	4.33E-07	2.16E-06	5.41E-07	1.47E-07	2.33E-06	5.82E-07	1.30E-04	2.06E-03	9.04E-03	
	Styrene	4.01E-05	5.66E-04	2.48E-03	1.47E-07	7.35E-07	1.84E-07	NR	NR	NR	4.01E-05	6.35E-04	2.78E-03	
	Tetrachloroethane	4.22E-06	5.95E-05	2.61E-04	NR	NR	NR	NR	NR	NR	4.22E-06	6.67E-05	2.92E-04	
	1,1,2,2-TCA	6.80E-05	9.60E-04	4.20E-03	NR	NR	NR	NR	NR	NR	6.80E-05	1.08E-03	4.71E-03	
	Toluene	6.94E-04	9.79E-03	4.29E-02	4.43E-05	2.21E-04	5.54E-05	5.67E-06	8.98E-05	2.24E-05	6.94E-04	1.10E-02	4.81E-02	
	1,1,1-TCA	NR	NR	NR	1.69E-06	3.89E-06	9.73E-07	NR	NR	NR	1.69E-06	3.89E-06	9.73E-07	
	1,1,2-TCA	5.41E-05	7.63E-04	3.34E-03	NR	NR	NR	NR	NR	NR	5.41E-05	8.56E-04	3.75E-03	
	2,2,4-Trimethylpentane	4.25E-04	6.00E-03	2.63E-02	NR	NR	NR	NR	NR	NR	4.25E-04	6.73E-03	2.95E-02	
	Vinyl Chloride	2.53E-05	3.57E-04	1.57E-03	NR	NR	NR	NR	NR	NR	2.53E-05	4.01E-04	1.76E-03	
	Xylenes	3.13E-04	4.41E-03	1.93E-02	7.79E-07	1.46E-03	3.66E-04	NR	NR	NR	3.13E-04	4.95E-03	2.17E-02	
	Total OHAP	0.1227	1.73	7.58	0.00	0.02	0.00	0.00	0.05	0.01	0.12	1.96	8.51	
	Total HAP		0.1227	1.73	7.58	0.00	0.02	0.00	0.00	0.05	0.01	0.12	1.96	8.51

Pollutant		U.S. EPA AP-42 Air Emission Factors 4-Stroke Lean-Burn Engines (SCC-2-02-002-54)	Adjustment of AEF's to Biogas Quality	Override Vendor Air Emission Specifications	Composite	Report		
		lb/MM Btu	lb/MM Btu	lb/MM Btu	lb/MM Btu	lb/MM Btu	pph	tpy
Criteria	PM (total)	0.0100	0.0170	NR	0.0170	0.0170	0.24	1.05
	PM ₁₀ (total)	0.0100	0.0170	NR	0.0170	0.0170	0.24	1.05
	PM _{2.5} (total)	0.0100	0.0170	NR	0.0170	0.0170	0.24	1.05
	SO ₂	0.0006	0.0010	0.2491	0.2491	0.2491	3.51	15.39
	NO _x (full load)	4.0800	6.9360	0.3780	0.3780	0.3780	5.33	23.36
	CO (full load)	0.3170	0.5389	1.4961	1.4961	1.4961	21.11	92.47
	VOC	0.1180	0.2006	0.3408	0.3408	0.3408	4.81	21.06
Hazardous	Acetaldehyde	8.36E-03	1.42E-02	NR	1.42E-02	1.42E-02	0.2005	0.8784
	Acrolein	5.14E-03	8.74E-03	NR	8.74E-03	8.74E-03	0.1233	0.5401
	Benzene	4.40E-04	7.48E-04	NR	7.48E-04	7.48E-04	0.0106	0.0462
	Biphenyl	2.12E-04	3.60E-04	NR	3.60E-04	3.60E-04	0.0051	0.0223
	1,3-Butadiene	2.67E-04	4.54E-04	NR	4.54E-04	4.54E-04	0.0064	0.0281
	Carbon Tetrachloride	3.67E-05	6.24E-05	NR	6.24E-05	6.24E-05	0.0009	0.0039
	Chlorobenzene	3.04E-05	5.17E-05	NR	5.17E-05	5.17E-05	0.0007	0.0032
	Chloroform	2.85E-05	4.85E-05	NR	4.85E-05	4.85E-05	0.0007	0.0030
	1,3-Dichloropropene	2.64E-05	4.49E-05	NR	4.49E-05	4.49E-05	0.0006	0.0028
	Ethylbenzene	3.67E-05	6.24E-05	NR	6.24E-05	6.24E-05	0.0009	0.0039
	Ethylene Dibromide	4.43E-05	7.53E-05	NR	7.53E-05	7.53E-05	0.0011	0.0047
	Formaldehyde	5.28E-02	8.98E-02	NR	8.98E-02	8.98E-02	1.27	5.55
	Hexane (n)	1.11E-03	1.89E-03	NR	1.89E-03	1.89E-03	0.0266	0.1166
	Methanol	2.50E-03	4.25E-03	NR	4.25E-03	4.25E-03	0.0600	0.2627
	Methylene Chloride	2.00E-05	3.40E-05	NR	3.40E-05	3.40E-05	0.0005	0.0021
	Naphthalene	7.44E-05	1.26E-04	NR	1.26E-04	1.26E-04	0.0018	0.0078
	Phenol	2.50E-05	4.25E-05	NR	4.25E-05	4.25E-05	0.0006	0.0026
	POM	7.67E-05	1.30E-04	NR	1.30E-04	1.30E-04	0.0018	0.0081
	Styrene	2.36E-05	4.01E-05	NR	4.01E-05	4.01E-05	0.0006	0.0025
	Tetrachloroethane	2.48E-06	4.22E-06	NR	4.22E-06	4.22E-06	0.0001	0.0003
	1,1,2,2-Tetrachloroethane	4.00E-05	6.80E-05	NR	6.80E-05	6.80E-05	0.0010	0.0042
1,1,2-Trichloroethane	3.18E-05	5.41E-05	NR	5.41E-05	5.41E-05	0.0008	0.0033	
2,2,4-Trimethylpentane	2.50E-04	4.25E-04	NR	4.25E-04	4.25E-04	0.0060	0.0263	
Toluene	4.08E-04	6.94E-04	NR	6.94E-04	6.94E-04	0.0098	0.0429	
Vinyl Chloride	1.49E-05	2.53E-05	NR	2.53E-05	2.53E-05	0.0004	0.0016	
Xylene	1.84E-04	3.13E-04	NR	3.13E-04	3.13E-04	0.0044	0.0193	
HAP	0.0722	0.1227	NR	0.1227	0.1227	1.94	8.51	

Size (MM Btu/hr)	Pollutant		IBT BUB											Fuel		
			PTE Air Emission Condition													
			BG Fuel Segment			LPG Fuel Segment			DO Fuel Segment			Maximum Condition				
			lb/MM Btu	pph	tpy	lb/MM Btu	pph	tpy	lb/MM Btu	pph	tpy	lb/MM Btu	pph		tpy	
5.00	Criteria	PM	0.0127	0.063	0.02	0.0044	0.022	0.01	0.0236	0.118	0.03	0.0236	0.118	0.03	DO	
		PM ₁₀	0.0127	0.063	0.02	0.0044	0.022	0.01	0.0171	0.086	0.02	0.0171	0.086	0.02	DO	
		PM _{2.5}	0.0127	0.063	0.02	0.0044	0.022	0.01	0.0153	0.076	0.02	0.0153	0.076	0.02	DO	
		SO ₂	0.0010	0.005	0.00	0.0002	0.001	0.00	0.0507	0.254	0.06	0.0507	0.254	0.06	DO	
		NO _x	0.1667	0.833	0.21	0.1547	0.773	0.19	0.1429	0.254	0.06	0.1667	0.833	0.21	BG	
		CO	0.1400	0.700	0.18	0.0210	0.105	0.03	0.0357	0.179	0.04	0.1400	0.700	0.18	BG	
			VOC	0.0092	0.046	0.01	0.0033	0.017	0.00	0.0024	0.012	0.003	0.0092	0.046	0.01	BG
	Hazardous	PPTE HAP	As	3.33E-07	1.67E-06	4.17E-07	NR	NR	NR	4.00E-06	2.00E-05	5.00E-06	4.00E-06	2.00E-05	5.00E-06	DO
			Be	2.00E-08	1.00E-07	2.50E-08	NR	NR	NR	3.00E-06	1.50E-05	3.75E-06	3.00E-06	1.50E-05	3.75E-06	BG
			Cd	1.83E-06	9.17E-06	2.29E-06	NR	NR	NR	3.00E-06	1.50E-05	3.75E-06	3.00E-06	1.50E-05	3.75E-06	DO
			Cr	2.33E-06	1.17E-05	2.92E-06	NR	NR	NR	3.00E-06	1.50E-05	3.75E-06	3.00E-06	1.50E-05	3.75E-06	DO
			Co	1.40E-07	7.00E-07	1.75E-07	NR	NR	NR	NR	NR	NR	1.40E-07	7.00E-07	1.75E-07	BG
			Pb	8.33E-07	4.17E-06	1.04E-06	NR	NR	NR	9.00E-06	1.55E-04	3.88E-05	9.00E-06	1.55E-04	3.88E-05	DO
			Mn	6.33E-07	3.17E-06	7.92E-07	NR	NR	NR	6.00E-06	1.50E-05	3.75E-06	6.00E-06	1.50E-05	3.75E-06	DO
			Ni	3.50E-06	1.75E-05	4.38E-06	NR	NR	NR	3.00E-06	3.00E-05	7.50E-06	3.50E-06	3.00E-05	7.50E-06	BG
			Total PPTE HAP	9.63E-06	4.81E-05	1.20E-05	NR	NR	NR	3.10E-05	2.65E-04	6.63E-05	3.16E-05	2.66E-04	6.64E-05	N/A
			VI HAP	Hg	4.33E-07	2.17E-06	5.42E-07	NR	NR	NR	3.00E-06	1.55E-04	3.88E-05	3.00E-06	1.55E-04	3.88E-05
		Se		4.00E-08	2.00E-07	5.00E-08	NR	NR	NR	1.50E-05	1.50E-05	3.75E-06	1.50E-05	1.50E-05	3.75E-06	DO
		Total VI HAP		4.73E-07	2.37E-06	5.92E-07	NR	NR	NR	1.80E-05	1.70E-04	4.25E-05	1.80E-05	1.70E-04	4.25E-05	N/A
		OHAP	Benzene	3.50E-06	1.75E-05	4.38E-06	NR	NR	NR	1.53E-06	7.64E-06	1.91E-06	3.50E-06	1.75E-05	4.38E-06	DO
			Dichlorobenzene	2.00E-06	1.00E-05	2.50E-06	NR	NR	NR	NR	NR	NR	2.00E-06	1.00E-05	2.50E-06	BG
			Ethylbenzene	NR	NR	NR	NR	NR	NR	4.54E-07	2.27E-06	5.68E-07	4.54E-07	2.27E-06	5.68E-07	DO
			Formaldehyde	1.25E-04	6.25E-04	1.56E-04	NR	NR	NR	2.36E-04	1.18E-03	2.95E-04	2.36E-04	1.18E-03	2.95E-04	DO
			Hexane	3.00E-03	1.50E-02	3.75E-03	NR	NR	NR	NR	NR	NR	3.00E-03	1.50E-02	3.75E-03	BG
			Naphthalene	1.02E-06	5.08E-06	1.27E-06	NR	NR	NR	8.07E-06	4.04E-05	1.01E-05	8.07E-06	4.04E-05	1.01E-05	DO
			POM	NR	NR	NR	NR	NR	NR	4.33E-07	2.16E-06	5.41E-07	4.33E-07	2.16E-06	5.41E-07	DO
			Styrene	1.47E-07	7.35E-07	1.84E-07	NR	NR	NR	NR	NR	NR	1.47E-07	7.35E-07	1.84E-07	BG
			Toluene	5.67E-06	2.83E-05	7.08E-06	NR	NR	NR	4.43E-05	2.21E-04	5.54E-05	4.43E-05	2.21E-04	5.54E-05	DO
	1,1,1-TCA		NR	NR	NR	NR	NR	NR	1.69E-06	3.89E-06	9.73E-07	1.69E-06	3.89E-06	9.73E-07	DO	
	Xylenes	NR	NR	NR	NR	NR	NR	7.79E-07	1.46E-03	3.66E-04	7.79E-07	1.46E-03	3.66E-04	DO		
	Total OHAP	3.14E-03	1.57E-02	3.92E-03	NR	NR	NR	2.93E-04	2.92E-03	7.30E-04	3.30E-03	1.79E-02	4.49E-03	N/A		
	Total HAP		0.0031	0.016	0.004	NR	NR	NR	0.0003	0.003	0.001	0.0033	0.018	0.005	N/A	

Size (MM Btu/hr)	Pollutant	AEF	Flare Stack PTE			
		lb/MM scf	lb/MM Btu	pph	tpy	
15.84	Criteria	PM (total)	7.6	0.0127	0.20	0.05
		PM ₁₀ (total)	7.6	0.0127	0.20	0.05
		PM _{2.5} (total)	7.6	0.0127	0.20	0.05
		SO ₂	0.6	0.0010	0.02	0.004
		NO _x (uncontrolled)	100.0	0.1667	2.64	0.66
		NO _x (controlled)	50.0	0.0833	1.32	0.33
		NO _x (controlled)	32.0	0.0533	0.84	0.21
		CO (all conditions)	84.0	0.1400	2.22	0.55
		VOC	5.5	0.0092	0.15	0.04
	PPTE HAP	As	2.00E-04	3.33E-07	5.28E-06	1.32E-06
		Be	1.20E-05	2.00E-08	3.17E-07	7.92E-08
		Cd	1.10E-03	1.83E-06	2.90E-05	7.26E-06
		Cr	1.40E-03	2.33E-06	3.70E-05	9.24E-06
		Co	8.40E-05	1.40E-07	2.22E-06	5.54E-07
		Pb	5.00E-04	8.33E-07	1.32E-05	3.30E-06
		Mn	3.80E-04	6.33E-07	1.00E-05	2.51E-06
		Ni	2.10E-03	3.50E-06	5.54E-05	1.39E-05
		Total PPTE HAP	5.78E-03	9.63E-06	1.52E-04	3.81E-05
	VI HAP	Hg	2.60E-04	4.33E-07	6.86E-06	1.72E-06
		Se	2.40E-05	4.00E-08	6.34E-07	1.58E-07
		Total VI HAP	2.84E-04	4.73E-07	7.50E-06	1.87E-06
	OHAP	Benzene	2.10E-03	3.50E-06	5.54E-05	1.39E-05
		Dichlorobenzene	1.20E-03	2.00E-06	3.17E-05	7.92E-06
		Formaldehyde	7.50E-02	1.25E-04	1.98E-03	4.95E-04
		Hexane	1.80E+00	3.00E-03	4.75E-02	1.19E-02
		Naphthalene	6.10E-04	1.02E-06	1.61E-05	4.03E-06
		POM	8.82E-05	1.47E-07	2.33E-06	5.82E-07
		Toluene	3.40E-03	5.67E-06	8.98E-05	2.24E-05
		Total OHAP	1.88	3.14E-03	4.97E-02	1.24E-02
	Total HAP		1.89	0.0031	0.050	0.01

Pollutant		PTE Air Emission Condition									
		BUB			EFS			Maximum			
		lb/MM Btu	pph	tpy	lb/MM Btu	pph	tpy	lb/MM Btu	pph	tpy	
Criteria	PM	0.0236	0.12	0.03	0.0127	0.20	0.05	0.0236	0.20	0.05	
	PM ₁₀	0.0171	0.09	0.02	0.0127	0.20	0.05	0.0171	0.20	0.05	
	PM _{2.5}	0.0153	0.08	0.02	0.0127	0.20	0.05	0.0153	0.20	0.05	
	SO ₂	0.0507	0.25	0.06	0.0010	0.02	0.00	0.0507	0.25	0.06	
	NO _x	0.1667	0.83	0.21	0.1667	2.64	0.66	0.1667	2.64	0.66	
	CO	0.1400	0.70	0.18	0.1400	2.22	0.55	0.1400	2.22	0.55	
	VOC	0.0092	0.05	0.01	0.0092	0.15	0.04	0.0092	0.15	0.04	
Hazardous	PPTE HAP	As	4.00E-06	2.00E-05	5.00E-06	3.33E-07	5.28E-06	1.32E-06	4.00E-06	2.00E-05	5.00E-06
		Be	3.00E-06	1.50E-05	3.75E-06	2.00E-08	3.17E-07	7.92E-08	3.00E-06	1.50E-05	3.75E-06
		Cd	3.00E-06	1.50E-05	3.75E-06	1.83E-06	2.90E-05	7.26E-06	3.00E-06	2.90E-05	7.26E-06
		Cr	3.00E-06	1.50E-05	3.75E-06	2.33E-06	3.70E-05	9.24E-06	3.00E-06	3.70E-05	9.24E-06
		Co	1.40E-07	7.00E-07	1.75E-07	1.40E-07	2.22E-06	5.54E-07	1.40E-07	2.22E-06	5.54E-07
		Pb	9.00E-06	1.55E-04	3.88E-05	8.33E-07	1.32E-05	3.30E-06	9.00E-06	1.55E-04	3.88E-05
		Mn	6.00E-06	1.50E-05	3.75E-06	6.33E-07	1.00E-05	2.51E-06	6.00E-06	1.50E-05	3.75E-06
	Ni	3.50E-06	3.00E-05	7.50E-06	3.50E-06	5.54E-05	1.39E-05	3.50E-06	5.54E-05	1.39E-05	
	Total PPTE HAP	3.16E-05	2.66E-04	6.64E-05	9.63E-06	1.52E-04	3.81E-05	3.16E-05	3.29E-04	8.22E-05	
	VI HAP	Hg	3.00E-06	1.55E-04	3.88E-05	4.33E-07	6.86E-06	1.72E-06	3.00E-06	1.55E-04	3.88E-05
		Se	1.50E-05	1.50E-05	3.75E-06	4.00E-08	6.34E-07	1.58E-07	1.50E-05	1.50E-05	3.75E-06
		Total VI HAP	1.80E-05	1.70E-04	4.25E-05	4.73E-07	7.50E-06	1.87E-06	1.80E-05	1.70E-04	4.25E-05
	OHAP	Benzene	3.50E-06	1.75E-05	4.38E-06	3.50E-06	5.54E-05	1.39E-05	3.50E-06	5.54E-05	1.39E-05
		Dichlorobenze	2.00E-06	1.00E-05	2.50E-06	2.00E-06	3.17E-05	7.92E-06	2.00E-06	3.17E-05	7.92E-06
		Ethylbenzene	4.54E-07	2.27E-06	5.68E-07	NR	NR	NR	4.54E-07	2.27E-06	5.68E-07
		Formaldehyde	2.36E-04	1.18E-03	2.95E-04	1.25E-04	1.98E-03	4.95E-04	2.36E-04	1.18E-03	2.95E-04
		Hexane	3.00E-03	1.50E-02	3.75E-03	3.00E-03	4.75E-02	1.19E-02	3.00E-03	4.75E-02	1.19E-02
		Naphthalene	8.07E-06	4.04E-05	1.01E-05	1.02E-06	1.61E-05	4.03E-06	8.07E-06	4.04E-05	1.01E-05
		POM	4.33E-07	2.16E-06	5.41E-07	1.47E-07	2.33E-06	5.82E-07	4.33E-07	2.16E-06	5.82E-07
		Styrene	1.47E-07	7.35E-07	1.84E-07	NR	NR	NR	1.47E-07	7.35E-07	1.84E-07
		Toluene	4.43E-05	2.21E-04	5.54E-05	5.67E-06	8.98E-05	2.24E-05	4.43E-05	2.21E-04	5.54E-05
		1,1,1-TCA	1.69E-06	3.89E-06	9.73E-07	NR	NR	NR	1.69E-06	3.89E-06	9.73E-07
	Xylenes	7.79E-07	1.46E-03	3.66E-04	NR	NR	NR	7.79E-07	1.46E-03	3.66E-04	
Total OHAP	3.30E-03	1.79E-02	4.49E-03	3.14E-03	4.97E-02	1.24E-02	3.30E-03	5.13E-02	1.28E-02		
Total HAP		0.0033	0.018	0.005	0.0031	0.050	0.01	0.0033	0.052	0.01	

Pollutant		FACILITY															
		PTE Air Emission Condition															
		ICE			BUB-EFS			ICE			ICE (8260 hpy) + BUB-EFS (500 hpy)			Maximum			
		8760 hpy			500 hpy			8260 hpy			8760 hpy						
		lb/MM Btu	pph	tpy	lb/MM Btu	pph	tpy	lb/MM Btu	pph	tpy	lb/MM Btu	pph	tpy	lb/MM Btu	pph	tpy	
Criteria	PM	0.0170	0.24	1.05	0.0236	0.12	0.03	0.0170	0.24	0.99	0.0236	0.24	1.02	0.0236	0.24	1.05	
	PM ₁₀	0.0170	0.24	1.05	0.0171	0.09	0.02	0.0170	0.24	0.99	0.0171	0.24	1.01	0.0171	0.24	1.05	
	PM _{2.5}	0.0170	0.24	1.05	0.0153	0.08	0.02	0.0170	0.24	0.99	0.0170	0.24	1.01	0.0170	0.24	1.05	
	SO ₂	0.2491	3.51	15.39	0.0507	0.25	0.06	0.2491	3.51	14.52	0.2491	3.51	14.58	0.2491	3.51	15.39	
	NO _x	0.3780	5.33	23.36	0.1667	0.83	0.21	0.3780	5.33	22.03	0.3780	5.33	22.24	0.3780	5.33	23.36	
	CO	1.4961	21.11	92.47	0.1400	0.70	0.18	1.4961	21.11	87.19	1.4961	21.11	87.36	1.4961	21.11	92.47	
	VOC	0.3408	4.81	21.06	0.0092	0.05	0.01	0.3408	4.81	19.86	0.3408	4.81	19.87	0.3408	4.81	21.06	
Hazardous	PPTe HAP	As	NR	NR	NR	4.00E-06	2.00E-05	5.00E-06	NR	NR	NR	4.00E-06	2.00E-05	5.00E-06	4.00E-06	2.00E-05	5.00E-06
		Be	NR	NR	NR	3.00E-06	1.50E-05	3.75E-06	NR	NR	NR	3.00E-06	1.50E-05	3.75E-06	3.00E-06	1.50E-05	3.75E-06
		Cd	NR	NR	NR	3.00E-06	1.50E-05	3.75E-06	NR	NR	NR	3.00E-06	1.50E-05	3.75E-06	3.00E-06	1.50E-05	3.75E-06
		Cr	NR	NR	NR	3.00E-06	1.50E-05	3.75E-06	NR	NR	NR	3.00E-06	1.50E-05	3.75E-06	3.00E-06	1.50E-05	3.75E-06
		Co	NR	NR	NR	1.40E-07	7.00E-07	1.75E-07	NR	NR	NR	1.40E-07	7.00E-07	1.75E-07	1.40E-07	7.00E-07	1.75E-07
		Pb	NR	NR	NR	9.00E-06	1.55E-04	3.88E-05	NR	NR	NR	9.00E-06	1.55E-04	3.88E-05	9.00E-06	1.55E-04	3.88E-05
		Mn	NR	NR	NR	6.00E-06	1.50E-05	3.75E-06	NR	NR	NR	6.00E-06	1.50E-05	3.75E-06	6.00E-06	1.50E-05	3.75E-06
		Ni	NR	NR	NR	3.50E-06	3.00E-05	7.50E-06	NR	NR	NR	3.50E-06	3.00E-05	7.50E-06	3.50E-06	3.00E-05	7.50E-06
		Total PPTe HAP	NR	NR	NR	3.2E-05	2.7E-04	6.6E-05	NR	NR	NR	3.16E-05	2.66E-04	6.64E-05	3.16E-05	2.66E-04	6.64E-05
		VI HAP	Hg	NR	NR	NR	3.00E-06	1.55E-04	3.88E-05	NR	NR	NR	3.00E-06	1.55E-04	3.88E-05	3.00E-06	1.55E-04
	Se		NR	NR	NR	1.50E-05	1.50E-05	3.75E-06	NR	NR	NR	1.50E-05	1.50E-05	3.75E-06	1.50E-05	1.50E-05	3.75E-06
	Total VI HAP		NR	NR	NR	1.8E-05	1.7E-04	4.3E-05	NR	NR	NR	1.80E-05	1.70E-04	4.25E-05	1.80E-05	1.70E-04	4.25E-05
	Acetaldehyde		1.42E-02	2.01E-01	8.78E-01	NR	NR	NR	1.42E-02	2.01E-01	8.28E-01	1.42E-02	2.01E-01	8.28E-01	1.42E-02	2.01E-01	8.78E-01
	Acrolein		8.74E-03	1.23E-01	5.40E-01	NR	NR	NR	8.74E-03	1.23E-01	5.09E-01	8.74E-03	1.23E-01	5.09E-01	8.74E-03	1.23E-01	5.40E-01
	Benzene		7.48E-04	1.06E-02	4.62E-02	3.5E-06	5.5E-05	1.38E-05	7.48E-04	1.06E-02	4.36E-02	7.48E-04	1.06E-02	4.36E-02	7.48E-04	1.06E-02	4.62E-02
	Biphenyl		3.60E-04	5.09E-03	2.23E-02	NR	NR	NR	3.60E-04	5.09E-03	2.10E-02	3.60E-04	5.09E-03	2.10E-02	3.60E-04	5.09E-03	2.23E-02
	1,3-Butadiene		4.54E-04	6.40E-03	2.81E-02	NR	NR	NR	4.54E-04	6.40E-03	2.65E-02	4.54E-04	6.40E-03	2.65E-02	4.54E-04	6.40E-03	2.81E-02
	Carbon Tetrachloride		6.24E-05	8.80E-04	3.86E-03	NR	NR	NR	6.24E-05	8.80E-04	3.64E-03	6.24E-05	8.80E-04	3.64E-03	6.24E-05	8.80E-04	3.86E-03
	Chlorobenzene		5.17E-05	7.29E-04	3.19E-03	NR	NR	NR	5.17E-05	7.29E-04	3.01E-03	5.17E-05	7.29E-04	3.01E-03	5.17E-05	7.29E-04	3.19E-03
	OHAP	Chloroform	4.85E-05	6.84E-04	2.99E-03	NR	NR	NR	4.85E-05	6.84E-04	2.82E-03	4.85E-05	6.84E-04	2.83E-03	4.85E-05	6.84E-04	2.99E-03
		Dichlorobenzene	NR	NR	NR	2.0E-06	3.2E-05	7.91E-06	NR	NR	NR	2.00E-06	3.17E-05	7.91E-06	2.00E-06	3.17E-05	7.91E-06
		1,3-Dichloropropene	4.49E-05	6.33E-04	2.77E-03	NR	NR	NR	4.49E-05	6.33E-04	2.62E-03	4.49E-05	6.33E-04	2.62E-03	4.49E-05	6.33E-04	2.77E-03
		Ethylbenzene	6.24E-05	8.80E-04	3.86E-03	4.5E-07	2.3E-06	5.68E-07	6.24E-05	8.80E-04	3.64E-03	6.24E-05	8.80E-04	3.64E-03	6.24E-05	8.80E-04	3.86E-03
		Ethylene Dibromide	7.53E-05	1.06E-03	4.65E-03	NR	NR	NR	7.53E-05	1.06E-03	4.39E-03	7.53E-05	1.06E-03	4.39E-03	7.53E-05	1.06E-03	4.65E-03
		Formaldehyde	8.98E-02	1.27	5.55	2.4E-04	2.0E-03	4.95E-04	8.98E-02	1.27E+00	5.23E+00	8.98E-02	1.27E+00	5.23E+00	8.98E-02	1.27	5.55
		Hexane	1.89E-03	2.66E-02	1.17E-01	3.0E-03	4.7E-02	1.19E-02	1.89E-03	2.66E-02	1.10E-01	3.00E-03	4.75E-02	1.22E-01	3.00E-03	4.75E-02	1.22E-01
		Methanol	4.25E-03	6.00E-02	2.63E-01	NR	NR	NR	4.25E-03	6.00E-02	2.48E-01	4.25E-03	6.00E-02	2.48E-01	4.25E-03	6.00E-02	2.63E-01
		Methylene Chloride	3.40E-05	4.80E-04	2.10E-03	NR	NR	NR	3.40E-05	4.80E-04	1.98E-03	3.40E-05	4.80E-04	1.98E-03	3.40E-05	4.80E-04	2.10E-03
		Naphthalene	1.26E-04	1.78E-03	7.82E-03	8.1E-06	4.0E-05	1.01E-05	1.26E-04	1.78E-03	7.37E-03	1.26E-04	1.78E-03	7.38E-03	1.26E-04	1.78E-03	7.82E-03
	OHAP	Phenol	4.25E-05	6.00E-04	2.63E-03	NR	NR	NR	4.25E-05	6.00E-04	2.48E-03	4.25E-05	6.00E-04	2.48E-03	4.25E-05	6.00E-04	2.63E-03
		POM	1.30E-04	1.84E-03	8.06E-03	4.3E-07	2.3E-06	5.82E-07	1.30E-04	1.84E-03	7.60E-03	1.30E-04	1.84E-03	7.60E-03	1.30E-04	1.84E-03	8.06E-03
		Styrene	4.01E-05	5.66E-04	2.48E-03	1.5E-07	7.4E-07	1.84E-07	4.01E-05	5.66E-04	2.34E-03	4.01E-05	5.66E-04	2.34E-03	4.01E-05	5.66E-04	2.48E-03
		Tetrachloroethane	4.22E-06	5.95E-05	2.61E-04	NR	NR	NR	4.22E-06	5.95E-05	2.46E-04	4.22E-06	5.95E-05	2.46E-04	4.22E-06	5.95E-05	2.61E-04
		1,1,2,2-TCA	6.80E-05	9.60E-04	4.20E-03	NR	NR	NR	6.80E-05	9.60E-04	3.96E-03	6.80E-05	9.60E-04	3.96E-03	6.80E-05	9.60E-04	4.20E-03
		Toluene	6.94E-04	9.79E-03	4.29E-02	4.4E-05	2.2E-04	5.54E-05	6.94E-04	9.79E-03	4.04E-02	6.94E-04	9.79E-03	4.05E-02	6.94E-04	9.79E-03	4.29E-02
		1,1,1-TCA	NR	NR	NR	1.7E-06	3.9E-06	9.73E-07	NR	NR	NR	1.69E-06	3.89E-06	9.73E-07	1.69E-06	3.89E-06	9.73E-07
		1,1,2-TCA	5.41E-05	7.63E-04	3.34E-03	NR	NR	NR	5.41E-05	7.63E-04	3.15E-03	5.41E-05	7.63E-04	3.15E-03	5.41E-05	7.63E-04	3.34E-03
		2,2,4-Trimethylpentane	4.25E-04	6.00E-03	2.63E-02	NR	NR	NR	4.25E-04	6.00E-03	2.48E-02	4.25E-04	6.00E-03	2.48E-02	4.25E-04	6.00E-03	2.63E-02
		Vinyl Chloride	2.53E-05	3.57E-04	1.57E-03	NR	NR	NR	2.53E-05	3.57E-04	1.48E-03	2.53E-05	3.57E-04	1.48E-03	2.53E-05	3.57E-04	1.57E-03
	Total HAP	Xylenes	3.13E-04	4.41E-03	1.93E-02	7.8E-07	1.5E-03	3.66E-04	3.13E-04	4.41E-03	1.82E-02	3.13E-04	4.41E-03	1.86E-02	3.13E-04	4.41E-03	1.93E-02
Total OHAP		0.1227	1.73	7.58	0.0033	0.051	0.01	0.1227	1.732	7.15	0.1238	1.75	7.16	0.1238	1.75	7.59	
Total HAP		0.1227	1.73	7.58	0.0033	0.052	0.01	0.1227	1.732	7.15	0.1239	1.75	7.16	0.1239	1.75	7.59	