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

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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TO: Interested Parties / Applicant

DATE: November 5, 2007

RE: Indiana Biofuels / 145-24857-00067

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

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures

Mitchell E. Daniels, Jr.
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Commissioner

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NEW SOURCE CONSTRUCTION AND FEDERALLY ENFORCEABLE STATE OPERATING PERMIT OFFICE OF AIR QUALITY

Indiana Biofuels, Inc.
Approximately 3,000 feet east of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, Indiana 46176

(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. 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 2-8 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.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

Operation Permit No.: F145-24857-00067	
Issued by: Original signed by Matt Stuckey Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: November 5, 2007 Expiration Date: November 5, 2012

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.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 2-8-3(b)]

The Permittee owns and operates a stationary ethanol production plant.

Source Address:	Approximately 3,000 feet east of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, Indiana 46176
Mailing Address:	14 Wall Street, 20th Floor, New York, NY 10005
General Source Phone Number:	(212) 618-1407
SIC Code:	2869
County Location:	Shelby
Source Location Status:	Nonattainment for 8-hour ozone standard Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Ethanol plant is not 1 of 28 listed source categories; boilers are considered 1 of 28 listed source categories, nested within the ethanol plant

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

(a) One (1) grain receiving area, approved for construction in 2007, receiving a maximum of 1,153,558 tons of grain per year, with particulate emissions controlled by a baghouse, identified as C01, and exhausting through stack S01, consisting of the following:

(1) One (1) grain truck dump pit/Auger, identified as EU01, with a maximum capacity of 60,000 bushels of corn per hour, and consisting of the following equipment:

(A) One (1) grain conveyor, identified as EU02.

(B) One (1) grain elevator, identified as EU03.

(2) One (1) grain truck dump pit/Auger, identified as EU04, with a maximum capacity of 60,000 bushels of corn per hour, and consisting of the following equipment:

(A) One (1) grain conveyor, identified as EU05.

(B) One (1) grain elevator, identified as EU06.

(3) One (1) grain rail dump pit/Auger #1, identified as EU07, with a maximum capacity of 60,000 bushels of corn per hour, and consisting of the following equipment:

(A) One (1) grain conveyor, identified as EU08.

(B) One (1) grain elevator, identified as EU09.

(b) One (1) internal handling system, approved for construction in 2007, with particulate emissions controlled by a baghouse, identified as C02, and exhausting through stack S02, consisting of the following:

(1) One (1) transfer conveyor, identified as EU10, with a maximum capacity of 60,000 bushels of corn per hour.

(2) One (1) corn storage silo #1, identified as EU11, with a maximum storage capacity of 600,000 bushels of corn.

(c) One (1) internal handling system, approved for construction in 2007, with particulate emissions controlled by a baghouse, identified as C03, and exhausting through stack S03, consisting of the following:

(1) One (1) transfer conveyor, identified as EU12, with a maximum capacity of 60,000 bushels of corn per hour.

(2) One (1) corn storage silo, identified as EU13, with a maximum storage capacity of 600,000 bushels of corn.

(d) One (1) surge bin #1, identified as EU14, approved for construction in 2007, with a maximum capacity of 10,000 bushels of corn and particulate emissions controlled by a baghouse, identified as C04, and exhausting through stack S04.

(e) One (1) surge bin #2, identified as EU16, approved for construction in 2007, with a maximum capacity of 10,000 bushels of corn and particulate emissions controlled by a baghouse, identified as C05, and exhausting through stack S05.

(f) One (1) scalper, identified as EU15, approved for construction in 2007, with a maximum capacity of 5,600 bushels of corn and particulate emissions uncontrolled.

(g) Four (4) hammermills, identified as EU17, EU18, EU19, and EU20, approved for construction in 2007, each with a maximum throughput rate of 2,248 bushels of corn per hour, controlled by baghouses C06, C07, C08, and C09, and exhausting through stacks S06, S07, S08, and S09, respectively.

(h) One (1) ground grain handling area, approved for construction in 2007, with particulate emissions controlled by a baghouse, identified as C10, and exhausting through stack S10, consisting of the following:

(1) One ground grain conveyor, identified as EU21, with a maximum capacity of 10,000 bushels per hour.

(2) One ground corn storage bin, identified as EU22, with a maximum capacity of 15,000 bushels of corn per hour.

(3) One ground grain conveyor, identified as EU23, with a maximum capacity of 10,000 bushels per hour.

(i) One (1) DDGS loadout operation, approved for construction in 2007, with a maximum throughput rate of 360,036 tons per year, consisting of the following:

(1) One (1) DDGS reclaim operation and DDGS elevator, identified as EU51 and EU52, with particulate emissions controlled by a baghouse, identified as C12, and exhausting through stack S11.

(2) One truck loadout operation, consisting of the following:

(A) One (1) DDGS conveyor, identified as EU53 and one (1) truck load spout, identified as EU54, with particulate emissions controlled by one (1) baghouse, identified as C13, and exhausting through stack S12.

(B) One (1) DDGS conveyor, identified as EU55 and one (1) truck load spout, identified as EU56, with particulate emissions controlled by one (1) baghouse, identified as C14, and exhausting through stack S13.

(3) One (1) DDGS conveyor, identified as EU57 and rail load spout, identified as EU58, with particulate emissions controlled by a baghouse, identified as C15, and exhausting through stack S14.

(j) One (1) fermentation process, approved for construction in 2007, controlled by a wet scrubber, identified as C11 and either of two (2) thermal oxidizers, identified as C16 and C17, each with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stacks S15 and S16, and consisting of the following:

(1) One (1) yeast slurry tank, identified as EU42.

(2) Seven (7) fermenters, identified as EU43, EU44, EU45, EU46, EU47, EU48, and EU49.

(3) One (1) beer well, identified as EU50.

Under NSPS, Subpart VV, equipment (as defined in 40 CFR 60.481) within a process unit is an affected facility.

(k) One (1) distillation process, approved for construction in 2007, controlled by either of two (2) thermal oxidizers, identified as C16 and C17, each with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stacks S15 and S16, and consisting of the following:

(1) One (1) yeast slurry tank, identified as EU24.

(2) Two (2) liquefaction tanks, identified as EU25 and EU26.

(3) One (1) process condensate tank, identified as EU27.

(4) One (1) beer column, identified as EU28.

(5) One (1) distillation stripper, identified as EU29.

(6) One (1) rectifier, identified as EU30.

(7) One (1) evaporation system, identified as EU31.

(8) One (1) whole stillage tank, identified as EU32.

(9) One (1) thin stillage tank, identified as EU33.

(10) One (1) syrup tank, identified as EU34.

(11) Four (4) stillage centrifuges, identified as EU35, EU36, EU37, and EU38.

(12) Two (2) molecular sieve units, identified as EU39 and EU40.

(13) One (1) 200 proof condenser, identified as EU41.

Under NSPS, Subpart VV, equipment (as defined in 40 CFR 60.481) within a process unit is an affected facility.

(l) Four (4) natural gas-fired boilers, identified as EU67, EU68, EU69, and EU70, approved for construction in 2007, each with a maximum heat input rate of 92.4 MMBtu/hr, with emissions exhausting to stacks S17, S18, S19, and S20, respectively.

Under 40 CFR, Subpart Dc, the boilers are considered to be new steam generating units.

(m) One (1) DDGS dryer and cooling system, approved for construction in 2007, with a maximum throughput rate of 360,036 tons of DDGS per year, consisting of the following:

(1) One (1) natural gas fired DDGS dryer, identified as EU59, with a maximum heat input rate of 90 MMBtu/hr, and one (1) DDGS cooler, identified as EU60, and emissions controlled by one (1) thermal oxidizer, identified as C16, with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stack S15.

(2) One (1) natural gas fired DDGS dryer, identified as EU62, with a maximum heat input rate of 90 MMBtu/hr, and one (1) DDGS cooler, identified as EU63, and emissions controlled by one (1) thermal oxidizer, identified as C17, with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stack S16.

(n) One (1) ethanol loading system, consisting of one (1) truck loading spout, identified as EU65 and one (1) rail loading spout, identified as EU66, approved for construction in 2007, with a maximum throughput rate of 36,000 gallons per hour when loading trucks, and 60,000 gallons per hour when loading railcars, with emissions venting through either of two (2) thermal oxidizers, identified as C16 and C17, each with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stacks S15 and S16.

Under NSPS, Subpart VV, equipment (as defined in 40 CFR 60.481) within a process unit is an affected facility.

(o) One (1) diesel-fired emergency generator, identified as EU71, approved for construction in 2007, with a maximum power output rate of 3,740 horsepower, and exhausting to stack S21.

Under 40 CFR 60, Subpart IIII, the emergency generator EU71 is considered a new stationary compression ignition (CI) internal combustion engine (ICE).

(p) One (1) diesel fired stationary fire pump, identified as EU72, approved for construction in 2007, with a maximum power output rate of 290 horsepower, and exhausting to stack S22.

Under 40 CFR 60, Subpart IIII, the diesel fire pump EU72 is considered a new certified National Fire Protection Association (NFPA) fire pump

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

(a) Noncontact cooling tower system, identified as FS06, with natural draft not regulated under a NESHAP.

(b) Replacement or repair of bags in baghouses and filters in other air filtration equipment.

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

(d) Blowdown for any of the following: sight glass, boiler, compressors, pumps, and cooling tower.

(e) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations.

(f) Other emission units, not regulated by a NESHAP, with PM10, NOx, and SO_2 emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs:

(1) One (1) denaturant tank, identified as TK03, approved for constructed in 2007, storing petroleum material with a vapor pressure equivalent to or less than the vapor pressure of 13 RVP gasoline, with a maximum capacity of 75,000 gallons. [326 IAC 8-4-3]

(2) One (1) denatured ethanol storage tank, identified as TK04, approved for constructed in 2007, with a maximum capacity of 1,000,000 gallons.

(3) Two (2) ethanol storage tanks, identified as TK01 and TK02, approved for constructed in 2007, each with a maximum capacity of 100,000 gallons.

Under 40 CFR 60, Subpart Kb, storage tanks TK01 through TK04 are considered to be new volatile organic liquid storage tanks.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

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][326 IAC 2-8]

This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 and [326 IAC 2-8] 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 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, F145-24857-00067, 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, 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 2-8-6]

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 2-8-4(4)]

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 2-8-4(5)(D)]

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

B.9 Duty to Provide Information [326 IAC 2-8-4(5)(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1). 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 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

(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 an "authorized individual" 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) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.11 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(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

(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 2-8-4(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.12 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

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

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

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

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

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

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

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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.14 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission

limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

(5) For each emergency lasting one (1) hour or more, the Permittee submitted 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 2-8-4(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 2-8-3(c)(6) 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 2-8 and any other applicable rules.

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

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

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

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

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

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

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

(a) All terms and conditions of permits established prior to F145-24857-00067 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.16 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

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 2-8-3(h) and 326 IAC 2-8-9.

B.17 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State 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 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 2-8-8(a)]

(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 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(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 2-8-8(c)]

B.19 Permit Renewal [326 IAC 2-8-3(h)]

(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 2-8-3. 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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 2-8 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 Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.21 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 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 2-8-15(b) through (d). 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 2-8-15(b)(2), (c)(1), and (d).

(b) Emission Trades [326 IAC 2-8-15(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 2-8-15(c).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(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 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.

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

B.22 Source Modification Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.23 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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 FESOP 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, at reasonable times, 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, at reasonable times, 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, at reasonable times, 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.24 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.25 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][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) Failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.26 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][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 2-8-4(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 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 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.4 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.5 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.6 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).

C.7 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on July 10, 2007, or the most recent plan approved by the Commissioner. The plan is included as Attachment A.

C.8 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.

C.9 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

Testing Requirements [326 IAC 2-8-4(3)]

C.10 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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.11 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 2-8-4][326 IAC 2-8-5(a)(1)]

C.12 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(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. 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.13 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.14 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(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 2-8-4][326 IAC 2-8-5(a)(1)]

C.15 Risk Management Plan [326 IAC 2-8-4] [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.16 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

(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.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

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

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

C.19 General Reporting Requirements [326 IAC 2-8-4(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

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 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(a) One (1) grain receiving area, approved for construction in 2007, receiving a maximum of 1,153,558 tons of grain per year, with particulate emissions controlled by a baghouse, identified as C01, and exhausting through stack S01, consisting of the following:

(1) One (1) grain truck dump pit/Auger, identified as EU01, with a maximum capacity of 60,000 bushels of corn per hour, and consisting of the following equipment:

(A) One (1) grain conveyor, identified as EU02.

(B) One (1) grain elevator, identified as EU03.

(2) One (1) grain truck dump pit/Auger, identified as EU04, with a maximum capacity of 60,000 bushels of corn per hour, and consisting of the following equipment:

(A) One (1) grain conveyor, identified as EU05.

(B) One (1) grain elevator, identified as EU06.

(3) One (1) grain rail dump pit/Auger #1, identified as EU07, with a maximum capacity of 60,000 bushels of corn per hour, and consisting of the following equipment:

(A) One (1) grain conveyor, identified as EU08.

(B) One (1) grain elevator, identified as EU09.

(b) One (1) internal handling system, approved for construction in 2007, with particulate emissions controlled by a baghouse, identified as C02, and exhausting through stack S02, consisting of the following:

(1) One (1) transfer conveyor, identified as EU10, with a maximum capacity of 60,000 bushels of corn per hour.

(2) One (1) corn storage silo #1, identified as EU11, with a maximum storage capacity of 600,000 bushels of corn.

(c) One (1) internal handling system, approved for construction in 2007, with particulate emissions controlled by a baghouse, identified as C03, and exhausting through stack S03, consisting of the following:

(1) One (1) transfer conveyor, identified as EU12, with a maximum capacity of 60,000 bushels of corn per hour.

(2) One (1) corn storage silo, identified as EU13, with a maximum storage capacity of 600,000 bushels of corn.

(d) One (1) surge bin #1, identified as EU14, approved for construction in 2007, with a maximum capacity of 10,000 bushels of corn and particulate emissions controlled by a baghouse, identified as C04, and exhausting through stack S04.

(e) One (1) surge bin #2, identified as EU16, approved for construction in 2007, with a maximum capacity of 10,000 bushels of corn and particulate emissions controlled by a baghouse, identified as C05, and exhausting through stack S05.

(f) One (1) scalper, identified as EU15, approved for construction in 2007, with a maximum capacity of 5,600 bushels of corn and particulate emissions uncontrolled.

(g) Four (4) hammermills, identified as EU17, EU18, EU19, and EU20, approved for construction in 2007, each with a maximum throughput rate of 2,248 bushels of corn per hour, controlled by baghouses C06, C07, C08, and C09, and exhausting through stacks S06, S07, S08, and S09, respectively.

(h) One (1) ground grain handling area, approved for construction in 2007, with particulate emissions controlled by a baghouse, identified as C10, and exhausting through stack S10, consisting of the following:

(1) One ground grain conveyor, identified as EU21, with a maximum capacity of 10,000 bushels per hour.

(2) One ground corn storage bin, identified as EU22, with a maximum capacity of 15,000 bushels of corn per hour.

(3) One ground grain conveyor, identified as EU23, with a maximum capacity of 10,000 bushels per hour.

(i) One (1) DDGS loadout operation, approved for construction in 2007, with a maximum throughput rate of 360,036 tons per year, consisting of the following:

(1) One (1) DDGS reclaim operation and DDGS elevator, identified as EU51 and EU52, with particulate emissions controlled by a baghouse, identified as C12, and exhausting through stack S11.

(2) One truck loadout operation, consisting of the following:

(A) One (1) DDGS conveyor, identified as EU53 and one (1) truck load spout, identified as EU54, with particulate emissions controlled by one (1) baghouse, identified as C13, and exhausting through stack S12.

(B) One (1) DDGS conveyor, identified as EU55 and one (1) truck load spout, identified as EU56, with particulate emissions controlled by one (1) baghouse, identified as C14, and exhausting through stack S13.

(3) One (1) DDGS conveyor, identified as EU57 and rail load spout, identified as EU58, with particulate emissions controlled by a baghouse, identified as C15, and exhausting through stack S14.

Insignificant Activities

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

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

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.1.1 Permit No Defense

This permit 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 there under, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

D.1.2 Effective Date of the Permit [IC13-15-5-3]

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

D.1.3 Modification to Construction Conditions [326 IAC 2]

All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.4 PM and PM10 Emission Limitations [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following emission limits listed in the table below for the grain receiving and DDGS handling operations:

Unit Description	Baghouse ID	PM/PM10 Emission Limit (lbs/hr)
Grain Receiving (EU01, EU02, EU03, EU04, EU05, EU05, EU06, EU07, EU08, and EU09)	C01	1.29
Corn Storage Bin #1 Vent Filters (EU10 and EU11)	C02	0.34
Corn Storage Bin #2 Vent Filters (EU12 and EU13)	C03	0.34
Surge Bin #1 Vent Filter (EU14)	C04	0.17
Surge Bin #2 Vent Filter (EU16)	C05	0.17
Hammermill #1 (EU17)	C06	0.26
Hammermill #2 (EU18)	C07	0.26
Hammermill #3 (EU19)	C08	0.26
Hammermill #4 (EU20)	C09	0.26
Ground Grain Handling Area (EU21, EU22, and EU23)	C10	0.13
DDGS reclaim operation (EU51 and EU52)	C12	0.09
DDGS conveyor and truck load spout #1 (EU53 and EU54)	C13	0.09
DDGS conveyor and truck load spout #2 (EU55 and EU56)	C14	0.09
DDGS conveyor and rail load spout (EU57 and EU58)	C15	0.09

Combined with the PM10 emissions from other emission units, the PM10 emissions from the entire source are limited to less than 100 tons/yr. Combined with the PM emissions from other units, the PM emissions from the entire source are limited to less than 250 tons/yr. Therefore, the requirements of 326 IAC 2-7 (Part 70 Program) and 326 IAC 2-2 (PSD) are not applicable.

D.1.5 Particulate Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, particulate emissions from each of the following operations shall not exceed the pound per hour limits listed in the table below:

Emission Unit	Max. Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
Grain Truck Dump Pit/Auger (EU01)	1680	84.5
Grain Truck Dump Pit/Auger (EU04)	1680	84.5
Grain Truck Dump Pit/Auger (EU07)	1680	84.5
Transfer Conveyor (EU10)	1680	84.5
Corn Storage Silo (EU11)	1680	84.5
Transfer Conveyor (EU12)	1680	84.5
Corn Storage Silo (EU13)	1680	84.5
Surge Bin #1 Vent Filter (EU14)	280	62.2
Surge Bin #2 Vent Filter (EU16)	280	62.2
Hammermill #1 (EU17)	62.9	46.7
Hammermill #2 (EU18)	62.9	46.7
Hammermill #3 (EU19)	62.9	46.7
Hammermill #4 (EU20)	62.9	46.7
DDGS reclaim operation (EU51 and EU52)	420	66.9
DDGS conveyor and truck load spout #1 (EU53 and EU54)	41.1	42.8
DDGS conveyor and truck load spout #2 (EU55 and EU56)	41.1	42.8
DDGS conveyor and rail load spout (EU57 and EU58)	41.1	42.8
DDGS reclaim operation (EU51 and EU52)	41.1	42.8

The pounds per hour limitations were calculated using the following equation:

Interpolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

Pursuant to 326 IAC 6-3-2(e)(3), when the process weight exceeds 200 tons per hour, the maximum allowable emission may exceed the emission limits shown in the table above, provided the concentration of particulate matter in the gas discharged to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

D.1.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.1.7 Particulate Control

(a) In order to comply with Conditions D.1.4 and D.1.5, each of the following emission units shall be controlled by the associated baghouse, as listed in the table below, when these units are in operation:

Unit Description	Baghouse ID
Grain Receiving (EU01, EU02, EU03, EU04, EU05, EU05, EU06, EU07, EU08, and EU09)	C01
Corn Storage Bin #1 Vent Filters (EU10 and EU11)	C02
Corn Storage Bin #2 Vent Filters (EU12 and EU13)	C03
Surge Bin #1 Vent Filter (EU14)	C04
Surge Bin #2 Vent Filter (EU16)	C05

Unit Description	Baghouse ID
Hammermill #1 (EU17)	C06
Hammermill #2 (EU18)	C07
Hammermill #3 (EU19)	C08
Hammermill #4 (EU20)	C09
Ground Grain Handling Area (EU21, EU22, and EU23)	C10
DDGS reclaim operation (EU51 and EU52)	C12
DDGS conveyor and truck load spout #1 (EU53 and EU54)	C13
DDGS conveyor and truck load spout #2 (EU55 and EU56)	C14
DDGS conveyor and rail load spout (EU57 and EU58)	C15

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.1.8 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Conditions D.1.4 and D.1.5:

(a) The Permittee shall perform PM and PM10 testing for baghouses C01, C02, C03, C04, C05, C10, C12, C13, C14, and C15 within 60 days after achieving the maximum capacity, but not later than 180 days after initial startup, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensible PM10.

(b) The Permittee shall perform PM and PM10 testing for one of the baghouses C06, C07, C08, and C09, within 60 days after achieving the maximum capacity, but not later than 180 days after initial startup, utilizing methods as approved by the Commissioner. These tests shall be repeated on a different baghouse at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensible PM10.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.9 Visible Emissions Notations

(a) Once per day visible emission notations of the baghouse stack exhausts (S01, S02, S03, S04, S05, S06, S07, S08, S09, S10, S11, S12, S13, and S14) shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.10 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the baghouses used in conjunction with the grain receiving, storage, and handling operations (C01, C02, C03, C04, C05, and C10), the milling operations (C06, C07, C08, and C09), and the DDGS storage and loadout operations (C12, C13, C14, and C15) at least once per day when these units are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

(b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.11 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse=s pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.12 Record Keeping Requirements

(a) To document compliance with Condition D.1.9, the Permittee shall maintain records of the once per day visible emission notations of the baghouse stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(b) To document compliance with Condition D.1.10, the Permittee shall maintain once per day records of pressure drop during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 FACILITY OPERATION CONDITIONS – Fermentation and Distillation Processes, Dryer and Cooling System, and Ethanol Loadout Racks

Facility Description [326 IAC 2-8-4(10)]:

(j) One (1) fermentation process, approved for construction in 2007, controlled by a wet scrubber, identified as C11 and either of two (2) thermal oxidizers, identified as C16 and C17, each with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stacks S15 and S16, and consisting of the following:

(1) One (1) yeast slurry tank, identified as EU42.

(2) Seven (7) fermenters, identified as EU43, EU44, EU45, EU46, EU47, EU48, and EU49.

(3) One (1) beer well, identified as EU50.

Under NSPS, Subpart VV, equipment (as defined in 40 CFR 60.481) within a process unit is an affected facility.

(k) One (1) distillation process, approved for construction in 2007, controlled by either of two (2) thermal oxidizers, identified as C16 and C17, each with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stacks S15 and S16, and consisting of the following:

(1) One (1) yeast slurry tank, identified as EU24.

(2) Two (2) liquefaction tanks, identified as EU25 and EU26.

(3) One (1) process condensate tank, identified as EU27.

(4) One (1) beer column, identified as EU28.

(5) One (1) distillation stripper, identified as EU29.

(6) One (1) rectifier, identified as EU30.

(7) One (1) evaporation system, identified as EU31.

(8) One (1) whole stillage tank, identified as EU32.

(9) One (1) thin stillage tank, identified as EU33.

(10) One (1) syrup tank, identified as EU34.

(11) Four (4) stillage centrifuges, identified as EU35, EU36, EU37, and EU38.

(12) Two (2) molecular sieve units, identified as EU39 and EU40.

(13) One (1) 200 proof condenser, identified as EU41.

Under NSPS, Subpart VV, equipment (as defined in 40 CFR 60.481) within a process unit is an affected facility.

(m) One (1) DDGS dryer and cooling system, approved for construction in 2007, with a maximum throughput rate of 360,036 tons of DDGS per year, consisting of the following:

(1) One (1) natural gas fired DDGS dryer, identified as EU59, with a maximum heat input rate of 90 MMBtu/hr, and one (1) DDGS cooler, identified as EU60, and emissions controlled by one (1) thermal oxidizer, identified as C16, with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stack S15.

(2) One (1) natural gas fired DDGS dryer, identified as EU62, with a maximum heat input rate of 90 MMBtu/hr, and one (1) DDGS cooler, identified as EU63, and emissions controlled by one (1) thermal oxidizer, identified as C17, with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stack S16.

(n) One (1) ethanol loading system, consisting of one (1) truck loading spout, identified as EU65 and one (1) rail loading spout, identified as EU66, approved for construction in 2007, with a maximum throughput rate of 36,000 gallons per hour when loading trucks, and 60,000 gallons per hour when loading railcars, with emissions venting through either of two (2) thermal oxidizers, identified as C16 and C17, each with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stacks S15 and S16.

Under NSPS, Subpart VV, equipment (as defined in 40 CFR 60.481) within a process unit is an affected facility.

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

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.2.1 Permit No Defense

This permit 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 there under, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

D.2.2 Effective Date of the Permit [IC13-15-5-3]

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

D.2.3 Modification to Construction Conditions [326 IAC 2]

All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.4 FESOP Limits [326 IAC 2-2] [326 IAC 2-3] [326 IAC 2-8-4] [326 IAC 2-4.1]

Pursuant to 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable, the Permittee shall comply with the following emission limits for the fermentation and distillation processes, dryer and cooling system, and ethanol loadout racks:

(a) Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable, the Permittee shall comply with the following emission limits for the thermal oxidizers (C16 and C17), which are used to control the emissions from the fermentation scrubber (C11), the distillation process, the dryer and cooling systems, and ethanol loadout racks:

(1) PM/PM10 emissions shall not exceed 3.40 lbs/hr from each stack S15 and S16.

(2) VOC emissions shall not exceed 6.50 lbs/hr from each stack S15 and S16.

(3) CO emissions shall not exceed 7.70 lbs/hr from each stack S15 and S16.

(4) SO2 emissions shall not exceed 7.50 lbs/hr from each stack S15 and S16.

(5) NOx emissions shall not exceed 6.50 lbs/hr from each stack S15 and S16.

(6) Acetaldehyde emissions shall not exceed 1.05 lbs/hr from each stack S15 and S16.

(7) Total HAP emissions shall not exceed 1.58 lbs/hr from each stack S15 and S16.

(b) Pursuant to 326 IAC 2-8-4 (FESOP), the Permittee shall comply with the following for the ethanol loading racks:

(1) The denatured ethanol loadout rate shall not exceed 115,500,000 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

(2) The ethanol loading racks shall utilize submerged loading methods.

(3) The railcars and trucks shall not use vapor balance services during ethanol loading.

Combined with the PM10, VOC, SO_2, CO, and NOx emissions from other units, the PM10, SO_2, VOC, CO, NOx emissions from the entire source are each limited to less than 100 tons/yr. Combined with the PM emissions from other units, the PM emissions from the entire source are limited to less than 250 tons/yr. Combined with the HAP emissions from other units, the HAP emissions from the entire source are limited to less than 10 tons/yr for a single HAP and less than 25 tons/yr for total HAPs. Therefore, the requirements of 326 IAC 2-7 (Part 70 Program), 326 IAC 2-2 (PSD), 326 IAC 2-3 (Emission Offset), and 326 IAC 2-4.1 (MACT) are not applicable.

D.2.5 VOC Emissions [326 IAC 8-5-6]

Pursuant to 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills), the Permittee shall comply with the following:

(a) The VOC emissions from the fermentation process shall be controlled by wet scrubber C11 in combination with one of the thermal oxidizers, identified as C16 and C17.

(b) The overall efficiency for the combination of the wet scrubber C11 and one of the thermal oxidizers, identified as C16 and C17 (including the capture efficiency and absorption efficiency), shall be at least 98%, or the VOC outlet concentration shall not exceed 10 ppmv.

(c) The VOC emissions from the distillation process and ethanol loadout operations shall be controlled by one of the thermal oxidizers identified as C16 and C17.

(d) The VOC emissions from DDGS Dryer #1 (EU59) shall be controlled by the thermal oxidizer identified as C16.

(e) The VOC emissions from DDGS Dryer #2 (EU62) shall be controlled by the thermal oxidizer identified as C17.

(f) The overall VOC control efficiency for each thermal oxidizer system (including the capture efficiency and control efficiency) shall be at least 98%, or the VOC outlet concentration shall not exceed 10 ppmv.

D.2.6 Particulate Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, particulate emissions from each of the following operations shall not exceed the pound per hour limits listed in the table below:

Unit ID	Unit Description	Max. Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
EU59	DDGS Dryer	41.1	42.8
EU62	DDGS Dryer	41.1	42.8

The pounds per hour limitations were calculated using the following equation:

Interpolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

D.2.7 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.2.8 VOC and HAP Control

In order to comply with Conditions D.2.4 and D.2.5:

(a) The scrubber C11 and thermal oxidizers C16 and C17 shall be in operation, and control emissions from the fermentation process at all times that the fermentation process is in operation.

(b) The thermal oxidizers C16 and C17 shall be in operation and control emissions from the distillation process, the DDGS dryers (EU59 and EU62) and the ethanol loadout racks (EU65 and EU66) at all times that the dryers and loadout racks are in operation.

D.2.9 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 8-5-6(d)]

In order to demonstrate compliance with Conditions D.2.4, D.2.5, and D.2.6, the Permittee shall perform PM, PM10, VOC (including emission rate, destruction efficiency, and capture efficiency), NOx, CO, and Acetaldehyde testing for the RTO system stacks (S15 and S16) within 60 days after achieving maximum capacity, but not later than 180 days after initial startup, utilizing methods as approved by the Commissioner. PM10 includes filterable and condensible PM10. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.2.10 Visible Emissions Notations

(a) Visible emission notations of the thermal oxidizer stacks (S15 and S16) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.2.11 Thermal Oxidizer Temperature [326 IAC 8-5-6]

(a) A continuous monitoring system shall be calibrated, maintained, and operated on each of the thermal oxidizers (C16 and C17) for measuring operating temperature. For the purpose of this condition, continuous means no less than once per minute. The output of this system shall be recorded as 3-hour average. From the date of startup until the approved stack test results are available, the Permittee shall operate the thermal oxidizers at or above the 3-hour average temperature of 1,400°F.

(b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Conditions D.2.4 and D.2.5, as approved by IDEM.

(c) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizers at or above the 3-hour average temperature as observed during the compliant stack test.

D.2.12 Parametric Monitoring [326 IAC 8-5-6]

(a) The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test that demonstrates compliance with limits in Conditions D.2.4 and D.2.5, as approved by IDEM.

(b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizer is in operation. On and after the date the approved stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in most recent compliant stack test.

D.2.13 Scrubber Pressure Drop and Flow Rate [326 IAC 8-5-6]

The Permittee shall monitor and record the pressure drop and the flow rate of the scrubber C11 at least once per day when the fermentation process is in operation. When for any one reading, the pressure drop across the scrubber is outside the normal range of 2.0 and 8.0 inches of water, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. When for any one reading, the flow rate of the scrubber is less than the normal minimum of 35 gallons per minute, or a minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range or a flow rate that is below the above mentioned minimum is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

The instruments used for determining the pressure drop and flow rate shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.2.14 Scrubber Failure Detection

In the event that a scrubber malfunction has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.15 Record Keeping Requirements [326 IAC 8-5-6]

(a) To document compliance with Condition D.2.4(b)(1), the Permittee shall maintain monthly records of the total amount of denatured ethanol loaded out from loading racks EU65 and EU66.

(b) To document compliance with Condition D.2.10, the Permittee shall maintain records of once per day visible emission notations of the stacks S15 and S16. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document compliance with Condition D.2.11, the Permittee shall maintain continuous temperature records for each of the thermal oxidizers and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(d) To document compliance with Condition D.2.12, the Permittee shall maintain daily records of the duct pressure or fan amperage for each of the thermal oxidizer systems (C16 and C17). The Permittee shall include in its daily record when a duct pressure or fan amperage reading is not taken and the reason for the lack of a duct pressure or fan amperage reading (e.g. the process did not operate that day).

(e) To document compliance with Condition D.2.13, the Permittee shall maintain daily records of pressure drop and flow rate for the scrubber C11 during normal operation. The Permittee shall include in its daily record when a pressure drop or flow rate reading is not taken and the reason for the lack of a pressure drop or flow rate reading (e.g. the process did not operate that day).

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.16 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.4(b)(1) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.3 FACILITY OPERATION CONDITIONS – Boilers

Facility Description [326 IAC 2-8-4(10)]:

(l) Four (4) natural gas-fired boilers, identified as EU67, EU68, EU69, and EU70, approved for construction in 2007, each with a maximum heat input rate of 92.4 MMBtu/hr, with emissions exhausting to stacks S17, S18, S19, and S20, respectively.

Under 40 CFR, Subpart Dc, the boilers are considered to be new steam generating units.

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

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.3.1 Permit No Defense

This permit 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 there under, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

D.3.2 Effective Date of the Permit [IC13-15-5-3]

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

D.3.3 Modification to Construction Conditions [326 IAC 2]

All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.4 Nitrogen Oxides (NOx) and CO Emissions [326 IAC 2-8-4] [326 IAC 2-2] [326 IAC 2-3]

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable, the following conditions shall apply:

(a) The boilers shall only burn natural gas.

(b) The input of natural gas to the boilers shall be limited to 3,175 MMCF per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) NOx emissions shall not exceed 20.4 pounds per MMCF.

(d) CO emissions shall not exceed 18.4 pounds per MMCF.

Combined with the NOx and CO emissions from other units, the NOx and CO emissions from the entire source are limited to less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-7 (Part 70 Program), 326 IAC 2-2 (PSD), and 326 IAC 2-3 (Emission Offset) are not applicable.

D.3.5 Particulate Emissions [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating: Emission Limitations for facilities specified in 326 IAC 6-2-1(d)), the PM emissions from the boilers shall not exceed 0.234 pounds per million Btu heat input (lb/MMBtu). This limitation was calculated using the following equation:

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

where Q = total source heat input capacity (MMBtu/hr)
For these units, Q = 369.6 MMBtu/hr.

D.3.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.3.7 Testing Requirements [326 IAC 2-8-5(a) (1), (4)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.3.4, the Permittee shall perform NOx and CO testing for one of the four (4) boilers, within sixty (60) days after achieving the maximum capacity, but not later than one hundred eighty (180) days after initial startup, utilizing methods as approved by the Commissioner. These tests shall be repeated on a different boiler at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.8 Record Keeping Requirements

(a) To document compliance with Condition D.3.4, the Permittee shall maintain daily records of the amount of fuel combusted in the boilers.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.9 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.3.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.4 FACILITY OPERATION CONDITIONS – Diesel Generator and Fire Pump

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

(o) One (1) diesel-fired emergency generator, identified as EU71, approved for construction in 2007, with a maximum power output rate of 3,740 horsepower, and exhausting to stack S21.

Under 40 CFR 60, Subpart IIII, the emergency generator EU71 is considered a new stationary compression ignition (CI) internal combustion engine (ICE).

(p) One (1) diesel fired stationary fire pump, identified as EU72, approved for construction in 2007, with a maximum power output rate of 290 horsepower, and exhausting to stack S22.

Under 40 CFR 60, Subpart IIII, the diesel fire pump EU72 is considered a new certified National Fire Protection Association (NFPA) fire pump.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.4.1 FESOP Limits [326 IAC 2-2] [326 IAC 2-3] [326 IAC 2-8-4] [326 IAC 2-4.1]

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable:

(a) The operating hours for the diesel generator (EU71) shall not exceed 200 hours per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The operating hours for the diesel fired stationary fire pump (EU72) shall not exceed 200 hours per twelve (12) consecutive month period with compliance determined at the end of each month.

Combined with the emission limits from other emission units, the emissions of each regulated pollutant from the entire source are each limited to less than 100 tons/yr. Therefore, the requirements of 326 IAC 2-7 (Part 70 Program), 326 IAC 2-2 (PSD), and 326 IAC 2-3 (Emission Offset) are not applicable.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.4.2 Record Keeping Requirements

(a) To document compliance with Condition D.4.1, the Permittee shall maintain monthly records of the operating hours for the diesel generator (EU71) and diesel fired stationary fire pump (EU72).

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.3 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Specifically Regulated Insignificant Activities

(f) Other emission units, not regulated by a NESHAP, with PM10, NOx, and SO_2 emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs:

(1) One (1) denaturant tank, identified as TK03, approved for constructed in 2007, storing petroleum material with a vapor pressure equivalent to or less than the vapor pressure of 13 RVP gasoline, with a maximum capacity of 75,000 gallons. [326 IAC 8-4-3]

(2) One (1) denatured ethanol storage tank, identified as TK04, approved for constructed in 2007, with a maximum capacity of 1,000,000 gallons.

(3) Two (2) ethanol storage tanks, identified as TK01 and TK02, approved for constructed in 2007, each with a maximum capacity of 100,000 gallons.

Under 40 CFR 60, Subpart Kb, storage tanks TK01 through TK04 are considered to be new volatile organic liquid storage tanks.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.5.1 Volatile Organic Compounds (VOC) [326 IAC 8-4-3]

(a) Pursuant to 326 IAC 8-4-3(b)(1)(B), storage tank TK03 shall be maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials.

(b) Pursuant to 326 IAC 8-4-3(b)(1)(C), all openings, except stub drains, are equipped with covers, lids, or seals such that:

(1) The cover, lid or seal in the closed potion at all times except when in actual use;

(2) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;

(3) Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

(c) Pursuant to 326 IAC 8-4-3(d) (Petroleum Liquid Storage Facilities), the Permittee shall maintain the following records for a period of two (2) years for tank TK03:

(1) The types of volatile petroleum liquid stored;

(2) The maximum true vapor pressure of the liquids as stored; and

(3) The results of the inspections performed on the storage vessel.

The above records shall be made available to the IDEM, OAQ upon written request.

D.5.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.5.3 Record Keeping Requirements

(a) To document compliance with Condition D.5.1, the Permittee shall maintain the following records for tank TK03:

(1) The types of volatile petroleum liquid stored;

(2) The maximum true vapor pressure of the liquids as stored; and

(3) The results of the inspections performed on the storage vessel.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION E.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(j) One (1) fermentation process, approved for construction in 2007, controlled by a wet scrubber, identified as C11 and either of two (2) thermal oxidizers, identified as C16 and C17, each with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stacks S15 and S16, and consisting of the following:

(1) One (1) yeast slurry tank, identified as EU42.

(2) Seven (7) fermenters, identified as EU43, EU44, EU45, EU46, EU47, EU48, and EU49.

(3) One (1) beer well, identified as EU50.

Under NSPS, Subpart VV, equipment (as defined in 40 CFR 60.481) within a process unit is an affected facility.

(k) One (1) distillation process, approved for construction in 2007, controlled by either of two (2) thermal oxidizers, identified as C16 and C17, each with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stacks S15 and S16, and consisting of the following:

(1) One (1) yeast slurry tank, identified as EU24.

(2) Two (2) liquefaction tanks, identified as EU25 and EU26.

(3) One (1) process condensate tank, identified as EU27.

(4) One (1) beer column, identified as EU28.

(5) One (1) distillation stripper, identified as EU29.

(6) One (1) rectifier, identified as EU30.

(7) One (1) evaporation system, identified as EU31.

(8) One (1) whole stillage tank, identified as EU32.

(9) One (1) thin stillage tank, identified as EU33.

(10) One (1) syrup tank, identified as EU34.

(11) Four (4) stillage centrifuges, identified as EU35, EU36, EU37, and EU38.

(12) Two (2) molecular sieve units, identified as EU39 and EU40.

(13) One (1) 200 proof condenser, identified as EU41.

Under NSPS, Subpart VV, equipment (as defined in 40 CFR 60.481) within a process unit is an affected facility.

(m) One (1) DDGS dryer and cooling system, approved for construction in 2007, with a maximum throughput rate of 360,036 tons of DDGS per year, consisting of the following:

(1) One (1) natural gas fired DDGS dryer, identified as EU59, with a maximum heat input rate of 90 MMBtu/hr, and one (1) DDGS cooler, identified as EU60, and emissions controlled by one (1) thermal oxidizer, identified as C16, with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stack S15.

(2) One (1) natural gas fired DDGS dryer, identified as EU62, with a maximum heat input rate of 90 MMBtu/hr, and one (1) DDGS cooler, identified as EU63, and emissions controlled by one (1) thermal oxidizer, identified as C17, with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stack S16.

(n) One (1) ethanol loading system, consisting of one (1) truck loading spout, identified as EU65 and one (1) rail loading spout, identified as EU66, approved for construction in 2007, with a maximum throughput rate of 36,000 gallons per hour when loading trucks, and 60,000 gallons per hour when loading railcars, with emissions venting through either of two (2) thermal oxidizers, identified as C16 and C17, each with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stacks S15 and S16.

Under NSPS, Subpart VV, equipment (as defined in 40 CFR 60.481) within a process unit is an affected facility.

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

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

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

(a) The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this Section E.1 except when otherwise specified in 40 CFR 60, Subpart VV.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

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

E.1.2 Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry [40 CFR Part 60, Subpart VV] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart VV, the Permittee shall comply with the provisions of Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, which are incorporated by reference as 326 IAC 12, as specified as follows:

Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry
Source: 48 FR 48335, Oct. 18, 1983, unless otherwise noted.

§ 60.480 Applicability and designation of affected facility.

(a)(1) The provisions of this subpart apply to affected facilities in the synthetic organic chemicals manufacturing industry.

(2) The group of all equipment (defined in §60.481) within a process unit is an affected facility.

(b) Any affected facility under paragraph (a) of this section that commences construction or modification after January 5, 1981, shall be subject to the requirements of this subpart.

(c) Addition or replacement of equipment for the purpose of process improvement which is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.

(d)(1) If an owner or operator applies for one or more of the exemptions in this paragraph, then the owner or operator shall maintain records as required in §60.486(i).

(2) Any affected facility that has the design capacity to produce less than 1,000 Mg/yr (1,102 ton/yr) is exempt from §60.482.

(3) If an affected facility produces heavy liquid chemicals only from heavy liquid feed or raw materials, then it is exempt from §60.482.

(4) Any affected facility that produces beverage alcohol is exempt from §60.482.

(5) Any affected facility that has no equipment in VOC service is exempt from §60.482.

(e) *Alternative means of compliance*—(1) *Option to comply with part 65.* Owners or operators may choose to comply with the provisions of 40 CFR part 65, subpart F, to satisfy the requirements of §§60.482 through 60.487 for an affected facility. When choosing to comply with 40 CFR part 65, subpart F, the requirements of §60.485(d), (e), and (f), and §60.486(i) and (j) still apply. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart F must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for that equipment. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2) do not apply to owners or operators of equipment subject to this subpart complying with 40 CFR part 65, subpart F, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart F, must comply with 40 CFR part 65, subpart A.

[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22607, May 30, 1984; 65 FR 61762, Oct. 17, 2000; 65 FR 78276, Dec. 14, 2000]

§ 60.481 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act or in subpart A of part 60, and the following terms shall have the specific meanings given them.

Capital expenditure means, in addition to the definition in 40 CFR 60.2, an expenditure for a physical or operational change to an existing facility that:

(a) Exceeds P, the product of the facility's replacement cost, R, and an adjusted annual asset guideline repair allowance, A, as reflected by the following equation: $P = R \times A$, where

(1) The adjusted annual asset guideline repair allowance, A, is the product of the percent of the replacement cost, Y, and the applicable basic annual asset guideline repair allowance, B, divided by 100 as reflected by the following equation:

$A = Y \times (B \div 100)$;

(2) The percent Y is determined from the following equation: $Y = 1.0 - 0.575 \log X$, where X is 1982 minus the year of construction; and

(3) The applicable basic annual asset guideline repair allowance, B, is selected from the following table consistent with the applicable subpart:

Table for Determining Applicable for B

Subpart applicable to facility	Value of B to be used in equation
VV	12.5
DDD	12.5
GGG	7.0
KKK	4.5

Closed vent system means a system that is not open to the atmosphere and that is composed of hard-piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process.

Connector means flanged, screwed, welded, or other joined fittings used to connect two pipe lines or a pipe line and a piece of process equipment.

Control device means an enclosed combustion device, vapor recovery system, or flare.

Distance piece means an open or enclosed casing through which the piston rod travels, separating the compressor cylinder from the crankcase.

Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Duct work means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork.

Equipment means each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service and any devices or systems required by this subpart.

First attempt at repair means to take rapid action for the purpose of stopping or reducing leakage of organic material to atmosphere using best practices.

Fuel gas means gases that are combusted to derive useful work or heat.

Fuel gas system means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use as fuel gas in combustion devices or in-process combustion equipment, such as furnaces and gas turbines, either singly or in combination.

Hard-piping means pipe or tubing that is manufactured and properly installed using good engineering judgement and standards such as ASME B31.3, Process Piping (available from the American Society of Mechanical Engineers, PO Box 2900, Fairfield, NJ 07007–2900).

In gas/vapor service means that the piece of equipment contains process fluid that is in the gaseous state at operating conditions.

In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.

In light liquid service means that the piece of equipment contains a liquid that meets the conditions specified in §60.485(e).

In-situ sampling systems means nonextractive samplers or in-line samplers.

In vacuum service means that equipment is operating at an internal pressure which is at least 5 kilopascals (kPa)(0.7 psia) below ambient pressure.

In VOC service means that the piece of equipment contains or contacts a process fluid that is at least 10 percent VOC by weight. (The provisions of §60.485(d) specify how to determine that a piece of equipment is not in VOC service.)

Liquids dripping means any visible leakage from the seal including spraying, misting, clouding, and ice formation.

Open-ended valve or line means any valve, except safety relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

Pressure release means the emission of materials resulting from system pressure being greater than set pressure of the pressure relief device.

Process improvement means routine changes made for safety and occupational health requirements, for energy savings, for better utility, for ease of maintenance and operation, for correction of design deficiencies, for bottleneck removal, for changing product requirements, or for environmental control.

Process unit means components assembled to produce, as intermediate or final products, one or more of the chemicals listed in §60.489 of this part. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a process unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not process unit shutdowns.

Quarter means a 3-month period; the first quarter concludes on the last day of the last full month during the 180 days following initial startup.

Repaired means that equipment is adjusted, or otherwise altered, in order to eliminate a leak as indicated by one of the following: an instrument reading of 10,000 ppm or greater, indication of liquids dripping, or indication by a sensor that a seal or barrier fluid system has failed.

Replacement cost means the capital needed to purchase all the depreciable components in a facility.

Sampling connection system means an assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take nonroutine grab samples is not considered a sampling connection system.

Sensor means a device that measures a physical quantity or the change in a physical quantity such as temperature, pressure, flow rate, pH, or liquid level.

Synthetic organic chemicals manufacturing industry means the industry that produces, as intermediates or final products, one or more of the chemicals listed in §60.489.

Volatile organic compounds or VOC means, for the purposes of this subpart, any reactive organic compounds as defined in §60.2 Definitions.

[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22607, May 30, 1984; 49 FR 26738, June 29, 1984; 60 FR 43258, Aug. 18, 1995; 65 FR 61762, Oct. 17, 2000; 65 FR 78276, Dec. 14, 2000]

§ 60.482-1 Standards: General.

(a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§60.482–1 through 60.482–10 or §60.480(e) for all equipment within 180 days of initial startup.

(b) Compliance with §§60.482–1 to 60.482–10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in §60.485.

(c)(1) An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of §§60.482–2, 60.482–3, 60.482–5, 60.482–6, 60.482–7, 60.482–8, and 60.482–10 as provided in §60.484.

(2) If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of §§60.482–2, 60.482–3, 60.482–5, 60.482–6, 60.482–7, 60.482–8, or 60.482–10, an owner or operator shall comply with the requirements of that determination.

(d) Equipment that is in vacuum service is excluded from the requirements of §§60.482–2 to 60.482–10 if it is identified as required in §60.486(e)(5).

[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22608, May 30, 1984; 65 FR 78276, Dec. 14, 2000]

§ 60.482-2 Standards: Pumps in light liquid service.

(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in §60.485(b), except as provided in §60.482–1(c) and paragraphs (d), (e), and (f) of this section.

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

(b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(2) If there are indications of liquids dripping from the pump seal, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482–9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a), *Provided* the following requirements are met:

(1) Each dual mechanical seal system is—

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(ii) Equipment with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of §60.482–10; or

(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(2) The barrier fluid system is in heavy liquid service or is not in VOC service.

(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(5)(i) Each sensor as described in paragraph (d)(3) is checked daily or is equipped with an audible alarm, and

(ii) The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(6)(i) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in paragraph (d)(5)(ii), a leak is detected.

(ii) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482–9.

(iii) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) Any pump that is designated, as described in §60.486(e)(1) and (2), for no detectable emission, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of this section if the pump:

(1) Has no externally actuated shaft penetrating the pump housing,

(2) Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in §60.485(c), and

(3) Is tested for compliance with paragraph (e)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

(f) If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of §60.482–10, it is exempt from paragraphs (a) through (e) of this section.

(g) Any pump that is designated, as described in §60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) of this section if:

(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and

(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (c) of this section if a leak is detected.

(h) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (a)(2) and (d)(4) of this section, and the daily requirements of paragraph (d)(5) of this section, provided that each pump is visually inspected as often as practicable and at least monthly.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78276, Dec. 14, 2000]

§ 60.482-3 Standards: Compressors.

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in §60.482–1(c) and paragraph (h) and (i) of this section.

(b) Each compressor seal system as required in paragraph (a) shall be:

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of §60.482–10; or

(3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.

(d) Each barrier fluid system as described in paragraph (a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(e)(1) Each sensor as required in paragraph (d) shall be checked daily or shall be equipped with an audible alarm.

(2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (e)(2), a leak is detected.

(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482–9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(h) A compressor is exempt from the requirements of paragraphs (a) and (b) of this section, if it is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft

back to a process or fuel gas system or to a control device that complies with the requirements of §60.482–10, except as provided in paragraph (i) of this section.

(i) Any compressor that is designated, as described in §60.486(e) (1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a)–(h) if the compressor:

(1) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in §60.485(c); and

(2) Is tested for compliance with paragraph (i)(1) of this section initially upon designation, annually, and at other times requested by the Administrator.

(j) Any existing reciprocating compressor in a process unit which becomes an affected facility under provisions of §60.14 or §60.15 is exempt from §60.482(a), (b), (c), (d), (e), and (h), provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of paragraphs (a) through (e) and (h) of this section.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78277, Dec. 14, 2000]

§ 60.482-4 Standards: Pressure relief devices in gas/vapor service.

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in §60.485(c).

(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in §60.482–9.

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in §60.485(c).

(c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in §60.482–10 is exempted from the requirements of paragraphs (a) and (b) of this section.

(d)(1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section.

(2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §60.482–9.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78277, Dec. 14, 2000]

§ 60.482-5 Standards: Sampling connection systems.

(a) Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in §60.482–1(c). Gases displaced during filling of the sample container are not required to be collected or captured.

(b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall comply with the requirements specified in paragraphs (b)(1) through (4) of this section:

(1) Return the purged process fluid directly to the process line; or

(2) Collect and recycle the purged process fluid to a process; or

(3) Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of §60.482–10; or

(4) Collect, store, and transport the purged process fluid to any of the following systems or facilities:

(i) A waste management unit as defined in 40 CFR 63.111, if the waste management unit is subject to, and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams;

(ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or

(iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261.

(c) In situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

[60 FR 43258, Aug. 18, 1995, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78277, Dec. 14, 2000]

§ 60.482-6 Standards: Open-ended valves or lines.

(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §60.482–1(c).

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) at all other times.

(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b) and (c) of this section.

(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section.

[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22607, May 30, 1984; 65 FR 78277, Dec. 14, 2000]

§ 60.482-7 Standards: Valves in gas/vapor service and in light liquid service.

(a) Each valve shall be monitored monthly to detect leaks by the methods specified in §60.485(b) and shall comply with paragraphs (b) through (e), except as provided in paragraphs (f), (g), and (h), §60.483–1, 2, and §60.482–1(c).

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

(d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in §60.482–9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) First attempts at repair include, but are not limited to, the following best practices where practicable:

(1) Tightening of bonnet bolts;

(2) Replacement of bonnet bolts;

(3) Tightening of packing gland nuts;

(4) Injection of lubricant into lubricated packing.

(f) Any valve that is designated, as described in §60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) if the valve:

(1) Has no external actuating mechanism in contact with the process fluid,

(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in §60.485(c), and

(3) Is tested for compliance with paragraph (f)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

(g) Any valve that is designated, as described in §60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) if:

(1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a), and

(2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(h) Any valve that is designated, as described in §60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) if:

(1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

(2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor, and

(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22608, May 30, 1984; 65 FR 61762, Oct. 17, 2000]

§ 60.482-8 Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors.

(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures:

(1) The owner or operator shall monitor the equipment within 5 days by the method specified in §60.485(b) and shall comply with the requirements of paragraphs (b) through (d) of this section.

(2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482–9.

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) First attempts at repair include, but are not limited to, the best practices described under §60.482–7(e).

[48 CFR 48335, Oct. 18, 1983, as amended at 65 FR 78277, Dec. 14, 2000]

§ 60.482-9 Standards: Delay of repair.

(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.

(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

(c) Delay of repair for valves will be allowed if:

(1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with §60.482–10.

(d) Delay of repair for pumps will be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 78277, Dec. 14, 2000]

§ 60.482-10 Standards: Closed vent systems and control devices.

(a) Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section.

(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.

(c) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °C.

(d) Flares used to comply with this subpart shall comply with the requirements of §60.18.

(e) Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

(f) Except as provided in paragraphs (i) through (k) of this section, each closed vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (f)(2) of this section.

(1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (f)(1)(i) and (f)(1)(ii) of this section:

(i) Conduct an initial inspection according to the procedures in §60.485(b); and

(ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:

(i) Conduct an initial inspection according to the procedures in §60.485(b); and

(ii) Conduct annual inspections according to the procedures in §60.485(b).

(g) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (h) of this section.

(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(2) Repair shall be completed no later than 15 calendar days after the leak is detected.

(h) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

(i) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section.

(j) Any parts of the closed vent system that are designated, as described in paragraph (l)(1) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (j)(1) and (j)(2) of this section:

(1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (f)(1)(i) or (f)(2) of this section; and

(2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

(k) Any parts of the closed vent system that are designated, as described in paragraph (l)(2) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (k)(1) through (k)(3) of this section:

(1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

(2) The process unit within which the closed vent system is located becomes an affected facility through §§60.14 or 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and

(3) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.

(l) The owner or operator shall record the information specified in paragraphs (l)(1) through (l)(5) of this section.

(1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

(2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

(3) For each inspection during which a leak is detected, a record of the information specified in §60.486(c).

(4) For each inspection conducted in accordance with §60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(5) For each visual inspection conducted in accordance with paragraph (f)(1)(ii) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(m) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

[48 FR 48335, Oct. 18, 1983, as amended at 51 FR 2702, Jan. 21, 1986; 60 FR 43258, Aug. 18, 1995; 61 FR 29878, June 12, 1996; 65 FR 78277, Dec. 14, 2000]

§ 60.483-1 Alternative standards for valves—allowable percentage of valves leaking.

(a) An owner or operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.

(b) The following requirements shall be met if an owner or operator wishes to comply with an allowable percentage of valves leaking:

(1) An owner or operator must notify the Administrator that the owner or operator has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in §60.487(d).

(2) A performance test as specified in paragraph (c) of this section shall be conducted initially upon designation, annually, and at other times requested by the Administrator.

(3) If a valve leak is detected, it shall be repaired in accordance with §60.482–7(d) and (e).

(c) Performance tests shall be conducted in the following manner:

(1) All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in §60.485(b).

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3) The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the affected facility.

(d) Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78278, Dec. 14, 2000]

§ 60.483-2 Alternative standards for valves—skip period leak detection and repair.

(a)(1) An owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (b)(2) and (3) of this section.

(2) An owner or operator must notify the Administrator before implementing one of the alternative work practices, as specified in §60.487(d).

(b)(1) An owner or operator shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in §60.482–7.

(2) After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(3) After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(4) If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in §60.482–7 but can again elect to use this section.

(5) The percent of valves leaking shall be determined by dividing the sum of valves found leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements of this section.

(6) An owner or operator must keep a record of the percent of valves found leaking during each leak detection period.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78278, Dec. 14, 2000]

§ 60.485 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(b) The owner or operator shall determine compliance with the standards in §§60.482, 60.483, and 60.484 as follows:

(1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used:

(i) Zero air (less than 10 ppm of hydrocarbon in air); and

(ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.

(c) The owner or operator shall determine compliance with the no detectable emission standards in §§60.482–2(e), 60.482–3(i), 60.482–4, 60.482–7(f), and 60.482–10(e) as follows:

(1) The requirements of paragraph (b) shall apply.

(2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) The owner or operator shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

(1) Procedures that conform to the general methods in ASTM E260–73, 91, or 96, E168–67, 77, or 92, E169–63, 77, or 93 (incorporated by reference—see §60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.

(2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.

(3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d)(1) and (2) of this section shall be used to resolve the disagreement.

(e) The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply:

(1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 °C (1.2 in. H_2O at 68 °F). Standard reference texts or ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17) shall be used to determine the vapor pressures.

(2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H_2O at 68 °F) is equal to or greater than 20 percent by weight.

(3) The fluid is a liquid at operating conditions.

(f) Samples used in conjunction with paragraphs (d), (e), and (g) of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

(g) The owner or operator shall determine compliance with the standards of flares as follows:

(1) Method 22 shall be used to determine visible emissions.

(2) A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.

(3) The maximum permitted velocity for air assisted flares shall be computed using the following equation:

$$V_{max} = K_1 + K_2 H_T$$

Where:

V_{max} = Maximum permitted velocity, m/sec (ft/sec)

H_T = Net heating value of the gas being combusted, MJ/scm (Btu/scf).

K_1 = 8.706 m/sec (metric units)

= 28.56 ft/sec (English units)

K_2 = 0.7084 m^4 /(MJ-sec) (metric units)

= 0.087 ft^4 /(Btu-sec) (English units)

(4) The net heating value (HT) of the gas being combusted in a flare shall be computed using the following equation:

$$H_T = K \sum_{i=1}^{n} C_i H_i$$

Where:

K = Conversion constant, 1.740×10^7 (g-mole)(MJ)/ (ppm-scm-kcal) (metric units)

= 4.674×10^8 [(g-mole)(Btu)/(ppm-scf-kcal)] (English units)

C_i = Concentration of sample component “i,” ppm

H_i = net heat of combustion of sample component “i” at 25 °C and 760 mm Hg (77 °F and 14.7 psi), kcal/g-mole

(5) Method 18 and ASTM D2504–67, 77, or 88 (Reapproved 1993) (incorporated by reference—see §60.17) shall be used to determine the concentration of sample component “i.”

(6) ASTM D2382–76 or 88 or D4809–95 (incorporated by reference—see §60.17) shall be used to determine the net heat of combustion of component “i” if published values are not available or cannot be calculated.

(7) Method 2, 2A, 2C, or 2D, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

[54 FR 6678, Feb. 14, 1989, as amended at 54 FR 27016, June 27, 1989; 65 FR 61763, Oct. 17, 2000]

§ 60.486 Recordkeeping requirements.

(a)(1) Each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section.

(2) An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility.

(b) When each leak is detected as specified in §§60.482–2, 60.482–3, 60.482–7, 60.482–8, and 60.483–2, the following requirements apply:

(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in §60.482–7(c) and no leak has been detected during those 2 months.

(3) The identification on equipment except on a valve, may be removed after it has been repaired.

(c) When each leak is detected as specified in §§60.482–2, 60.482–3, 60.482–7, 60.482–8, and 60.483–2, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

(1) The instrument and operator identification numbers and the equipment identification number.

(2) The date the leak was detected and the dates of each attempt to repair the leak.

(3) Repair methods applied in each attempt to repair the leak.

(4) “Above 10,000” if the maximum instrument reading measured by the methods specified in §60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.

(5) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

(7) The expected date of successful repair of the leak if a leak is not repaired within 15 days.

(8) Dates of process unit shutdowns that occur while the equipment is unrepaired.

(9) The date of successful repair of the leak.

(d) The following information pertaining to the design requirements for closed vent systems and control devices described in §60.482–10 shall be recorded and kept in a readily accessible location:

(1) Detailed schematics, design specifications, and piping and instrumentation diagrams.

(2) The dates and descriptions of any changes in the design specifications.

(3) A description of the parameter or parameters monitored, as required in §60.482–10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(4) Periods when the closed vent systems and control devices required in §§60.482–2, 60.482–3, 60.482–4, and 60.482–5 are not operated as designed, including periods when a flare pilot light does not have a flame.

(5) Dates of startups and shutdowns of the closed vent systems and control devices required in §§60.482–2, 60.482–3, 60.482–4, and 60.482–5.

(e) The following information pertaining to all equipment subject to the requirements in §§60.482–1 to 60.482–10 shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for equipment subject to the requirements of this subpart.

(2)(i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §§60.482–2(e), 60.482–3(i) and 60.482–7(f).

(ii) The designation of equipment as subject to the requirements of §60.482–2(e), §60.482–3(i), or §60.482–7(f) shall be signed by the owner or operator.

(3) A list of equipment identification numbers for pressure relief devices required to comply with §60.482–4.

(4)(i) The dates of each compliance test as required in §§60.482–2(e), 60.482–3(i), 60.482–4, and 60.482–7(f).

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

(5) A list of identification numbers for equipment in vacuum service.

(f) The following information pertaining to all valves subject to the requirements of §60.482–7(g) and (h) and to all pumps subject to the requirements of §60.482–2(g) shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump.

(2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

(g) The following information shall be recorded for valves complying with §60.483–2:

(1) A schedule of monitoring.

(2) The percent of valves found leaking during each monitoring period.

(h) The following information shall be recorded in a log that is kept in a readily accessible location:

(1) Design criterion required in §§60.482–2(d)(5) and 60.482–3(e)(2) and explanation of the design criterion; and

(2) Any changes to this criterion and the reasons for the changes.

(i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in §60.480(d):

(1) An analysis demonstrating the design capacity of the affected facility,

(2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and

(3) An analysis demonstrating that equipment is not in VOC service.

(j) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

(k) The provisions of §60.7 (b) and (d) do not apply to affected facilities subject to this subpart.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61763, Oct. 17, 2000; 65 FR 78278, Dec. 14, 2000]

§ 60.487 Reporting requirements.

(a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning six months after the initial startup date.

(b) The initial semiannual report to the Administrator shall include the following information:

(1) Process unit identification.

(2) Number of valves subject to the requirements of §60.482–7, excluding those valves designated for no detectable emissions under the provisions of §60.482–7(f).

(3) Number of pumps subject to the requirements of §60.482–2, excluding those pumps designated for no detectable emissions under the provisions of §60.482–2(e) and those pumps complying with §60.482–2(f).

(4) Number of compressors subject to the requirements of §60.482–3, excluding those compressors designated for no detectable emissions under the provisions of §60.482–3(i) and those compressors complying with §60.482–3(h).

(c) All semiannual reports to the Administrator shall include the following information, summarized from the information in §60.486:

(1) Process unit identification.

(2) For each month during the semiannual reporting period,

(i) Number of valves for which leaks were detected as described in §60.482(7)(b) or §60.483–2,

(ii) Number of valves for which leaks were not repaired as required in §60.482–7(d)(1),

(iii) Number of pumps for which leaks were detected as described in §60.482–2(b) and (d)(6)(i),

(iv) Number of pumps for which leaks were not repaired as required in §60.482–2(c)(1) and (d)(6)(ii),

(v) Number of compressors for which leaks were detected as described in §60.482–3(f),

(vi) Number of compressors for which leaks were not repaired as required in §60.482–3(g)(1), and

(vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

(3) Dates of process unit shutdowns which occurred within the semiannual reporting period.

(4) Revisions to items reported according to paragraph (b) if changes have occurred since the initial report or subsequent revisions to the initial report.

(d) An owner or operator electing to comply with the provisions of §§60.483–1 or 60.483–2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.

(e) An owner or operator shall report the results of all performance tests in accordance with §60.8 of the General Provisions. The provisions of §60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.

(f) The requirements of paragraphs (a) through (c) of this section remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of paragraphs (a) through (c) of this section, provided that they comply with the requirements established by the State.

[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22608, May 30, 1984; 65 FR 61763, Oct. 17, 2000]

SECTION E.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(l) Four (4) natural gas-fired boilers, identified as EU67, EU68, EU69, and EU70, approved for construction in 2007, each with a maximum heat input rate of 92.4 MMBtu/hr, with emissions exhausting to stacks S17, S18, S19, and S20, respectively.

Under 40 CFR, Subpart Dc, the boilers are considered to be new steam generating units.

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

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

E.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, 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 for the boilers EU67, EU68, EU69, and EU70 except as otherwise specified in 40 CFR Part 60, Subpart Dc.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:
Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.2.2 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units Requirements [40 CFR Part 60, Subpart Dc] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall comply with the provisions of Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, which are incorporated by reference as 326 IAC 12, for the boilers EU67, EU68, EU69, and EU70 as specified as follows:

Subpart Dc —Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO2) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in §60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under §60.14.

(e) Heat recovery steam generators that are associated with combined cycle gas turbines and meet the applicability requirements of subpart GG or KKKK of this part are not subject to this subpart. This subpart

will continue to apply to all other heat recovery steam generators that are capable of combusting more than or equal to 2.9 MW (10 MMBtu/hr) heat input of fossil fuel but less than or equal to 29 MW (100 MMBtu/hr) heat input of fossil fuel. If the heat recovery steam generator is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The gas turbine emissions are subject to subpart GG or KKKK, as applicable, of this part).

(f) Any facility covered by subpart AAAA of this part is not covered by this subpart.

(g) Any facility covered by an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not covered by this subpart.

§ 60.41c Definitions.

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

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Cogeneration steam generating unit means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (*i.e.* , the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

Dry flue gas desulfurization technology means a SO_2control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO_2control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under §60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

Natural gas means: (1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or (2) liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see §60.17).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO_2emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Wet flue gas desulfurization technology means an SO_2control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO_2.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

§ 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO_2emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO_2standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

SECTION E.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

(f) Other emission units, not regulated by a NESHAP, with PM10, NOx, and SO_2 emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs:

(1) One (1) denaturant tank, identified as TK03, approved for constructed in 2007, storing petroleum material with a vapor pressure equivalent to or less than the vapor pressure of 13 RVP gasoline, with a maximum capacity of 75,000 gallons. [326 IAC 8-4-3]

(2) One (1) denatured ethanol storage tank, identified as TK04, approved for constructed in 2007, with a maximum capacity of 1,000,000 gallons.

(3) Two (2) ethanol storage tanks, identified as TK01 and TK02, approved for constructed in 2007, each with a maximum capacity of 100,000 gallons.

Under 40 CFR 60, Subpart Kb, storage tanks TK01 through TK04 are considered to be new volatile organic liquid storage tanks.

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

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

E.3.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, 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 for tanks TK01, TK02, TK03, and TK04 except as otherwise specified in 40 CFR Part 60, Subpart Kb.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

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

E.3.2 Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) [40 CFR Part 60, Subpart Kb] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart Kb, the Permittee shall comply with the provisions of Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels), which are incorporated by reference as 326 IAC 12, for tanks TK01, TK02, TK03, and TK04 as specified as follows:

Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)

Source: 52 FR 11429, April 8, 1987, unless otherwise noted.

§ 60.110b Applicability and designation of affected facility.

(a) Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

(b) This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure less than 15.0 kPa.

(c) [Reserved]

(d) This subpart does not apply to the following:

(1) Vessels at coke oven by-product plants.

(2) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.

(3) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships.

(4) Vessels with a design capacity less than or equal to 1,589.874 m^3 used for petroleum or condensate stored, processed, or treated prior to custody transfer.

(5) Vessels located at bulk gasoline plants.

(6) Storage vessels located at gasoline service stations.

(7) Vessels used to store beverage alcohol.

(8) Vessels subject to subpart GGGG of 40 CFR part 63.

(e) *Alternative means of compliance*—(1) *Option to comply with part 65.* Owners or operators may choose to comply with 40 CFR part 65, subpart C, to satisfy the requirements of §§60.112b through 60.117b for storage vessels that are subject to this subpart that meet the specifications in paragraphs (e)(1)(i) and (ii) of this section. When choosing to comply with 40 CFR part 65, subpart C, the monitoring requirements of §60.116b(c), (e), (f)(1), and (g) still apply. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(i) A storage vessel with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa; or

(ii) A storage vessel with a design capacity greater than 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa.

(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart C, must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2) do not apply to owners or operators of storage vessels complying with 40 CFR part 65, subpart C, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart C, must comply with 40 CFR part 65, subpart A.

(3) *Internal floating roof report.* If an owner or operator installs an internal floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.43. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

(4) *External floating roof report.* If an owner or operator installs an external floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.44. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989; 65 FR 78275, Dec. 14, 2000; 68 FR 59332, Oct. 15, 2003]

§ 60.111b Definitions.

Terms used in this subpart are defined in the Act, in subpart A of this part, or in this subpart as follows:

Bulk gasoline plant means any gasoline distribution facility that has a gasoline throughput less than or equal to 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal requirement or Federal, State or local law, and discoverable by the Administrator and any other person.

Condensate means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.

Custody transfer means the transfer of produced petroleum and/or condensate, after processing and/or treatment in the producing operations, from storage vessels or automatic transfer facilities to pipelines or any other forms of transportation.

Fill means the introduction of VOL into a storage vessel but not necessarily to complete capacity.

Gasoline service station means any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.

Maximum true vapor pressure means the equilibrium partial pressure exerted by the volatile organic compounds (as defined in 40 CFR 51.100) in the stored VOL at the temperature equal to the highest calendar-month average of the VOL storage temperature for VOL's stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for VOL's stored at the ambient temperature, as determined:

(1) In accordance with methods described in American Petroleum institute Bulletin 2517, Evaporation Loss From External Floating Roof Tanks, (incorporated by reference—see §60.17); or

(2) As obtained from standard reference texts; or

(3) As determined by ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17);

(4) Any other method approved by the Administrator.

Petroleum means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

Petroleum liquids means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery.

Process tank means a tank that is used within a process (including a solvent or raw material recovery process) to collect material discharged from a feedstock storage vessel or equipment within the process before the material is transferred to other equipment within the process, to a product or by-product storage vessel, or to a vessel used to store recovered solvent or raw material. In many process tanks, unit operations such as reactions and blending are conducted. Other process tanks, such as surge control vessels and bottoms receivers, however, may not involve unit operations.

Reid vapor pressure means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquified petroleum gases, as determined by ASTM D323–82 or 94 (incorporated by reference—see §60.17).

Storage vessel means each tank, reservoir, or container used for the storage of volatile organic liquids but does not include:

(1) Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of liquids or vapors;

(2) Subsurface caverns or porous rock reservoirs; or

(3) Process tanks.

Volatile organic liquid (VOL) means any organic liquid which can emit volatile organic compounds (as defined in 40 CFR 51.100) into the atmosphere.

Waste means any liquid resulting from industrial, commercial, mining or agricultural operations, or from community activities that is discarded or is being accumulated, stored, or physically, chemically, or biologically treated prior to being discarded or recycled.

[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989; 65 FR 61756, Oct. 17, 2000; 68 FR 59333, Oct. 15, 2003]

§ 60.112b Standard for volatile organic compounds (VOC).

(a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:

(1) A fixed roof in combination with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

§ 60.113b Testing and procedures.

The owner or operator of each storage vessel as specified in §60.112b(a) shall meet the requirements of paragraph (a), (b), or (c) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of §60.112b.

(a) After installing the control equipment required to meet §60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:

(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

(2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in §60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

§ 60.115b Reporting and recordkeeping requirements.

The owner or operator of each storage vessel as specified in §60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of §60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.

(a) After installing control equipment in accordance with §60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the notification required by §60.7(a)(3).

(2) Keep a record of each inspection performed as required by §60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §61.112b(a)(1) or §60.113b(a)(3) and list each repair made.

§ 60.116b Monitoring of operations.

(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.

(b) The owner or operator of each storage vessel as specified in §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

(c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

(d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor vapor pressure values for each volume range.

(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference—see §60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

(3) For other liquids, the vapor pressure:

(i) May be obtained from standard reference texts, or

(ii) Determined by ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17); or

(iii) Measured by an appropriate method approved by the Administrator; or

(iv) Calculated by an appropriate method approved by the Administrator.

[52 FR 11429, Apr. 8, 1987, as amended at 65 FR 61756, Oct. 17, 2000; 65 FR 78276, Dec. 14, 2000; 68 FR 59333, Oct. 15, 2003]

§ 60.117b Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: §§60.111b(f)(4), 60.114b, 60.116b(e)(3)(iii), 60.116b(e)(3)(iv), and 60.116b(f)(2)(iii).

[52 FR 11429, Apr. 8, 1987, as amended at 52 FR 22780, June 16, 1987]

SECTION E.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(o) One (1) diesel-fired emergency generator, identified as EU71, approved for construction in 2007, with a maximum power output rate of 3,740 horsepower, and exhausting to stack S21.

Under 40 CFR 60, Subpart IIII, the emergency generator EU71 is considered a new stationary compression ignition (CI) internal combustion engine (ICE).

(p) One (1) diesel fired stationary fire pump, identified as EU72, approved for construction in 2007, with a maximum power output rate of 290 horsepower, and exhausting to stack S22.

Under 40 CFR 60, Subpart IIII, the diesel fire pump EU72 is considered a new certified National Fire Protection Association (NFPA) fire pump.

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

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

E.4.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the emergency generator (EU71) and fire pump (EU72) except when otherwise specified in 40 CFR 60, Subpart IIII.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

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

E.4.2 Standards of Performance for Stationary Compression Ignition Internal Combustion Engines [40 CFR Part 60, Subpart IIII] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart IIII, the Permittee shall comply with the provisions of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, which are incorporated by reference as 326 IAC 12, for the fire emergency generator (EU71) and fire pump (EU72), as specified as follows:

Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Source: 71 FR 39172, July 11, 2006, unless otherwise noted.

§ 60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (3) 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.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005 where the stationary CI ICE are:

(i) Manufactured after April 1, 2006 and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005.

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

Emission Standards for Owners and Operators

§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

Fuel Requirements for Owners and Operators

§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for non-road diesel fuel.

(c) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of paragraphs (a) and (b) of this section beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

Other Requirements for Owners and Operators

§ 60.4208 What is the deadline for importing or installing stationary CI ICE produced in the previous model year?

(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (f) of this section after the dates specified in paragraphs (a) through (f) of this section.

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

§ 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine, you must install a non-resettable hour meter prior to startup of the engine.

Compliance Requirements

§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. 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.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

(e) 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. Anyone 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. For owners and operators of emergency engines meeting standards under §60.4205 but not §60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited.

Testing Requirements for Owners and Operators

§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (d) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for non-road diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \qquad \text{(Eq. 1)}$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.

Notification, Reports, and Records for Owners and Operators

§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the

engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

General Provisions

§ 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

Definitions

§ 60.4219 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.

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.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

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 CI 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.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Manufacturer has the meaning given in section 216(1) of the 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 sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means either:

(1) The calendar year in which the engine was originally produced, or

(2) 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 non-road or other non-stationary engine, model year means the calendar year or new model production period in which the engine was originally produced.

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.

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

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 a gasoline, natural gas, or liquefied petroleum gas 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 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 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 non-road 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.

Subpart means 40 CFR part 60, subpart IIII.

Useful 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 useful life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for useful life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Tables to Subpart IIII of Part 60

Table 1 to Subpart IIII of Part 60._Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007-2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder [As stated in §§ 60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007-2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NOX	HC	NOX	CO	PM
KW<8 (HP<11)	10.5 (7.8)	.....	.....	8.0 (6.0)	1.0 (0.75)
8[le]KW<19 (11[le]HP<25)	9.5 (7.1)	.....	.....	6.6 (4.9)	0.80 (0.60)
19[le]KW<37 (25[le]HP<50)	9.5 (7.1)	.....	.....	5.5 (4.1)	0.80 (0.60)
37[le]KW<56 (50[le]HP<75)	.....	.....	9.2 (6.9)	.....	.....
56[le]KW<75 (75[le]HP<100)	.....	.....	9.2 (6.9)	.....	.....
75[le]KW<130 (100[le]HP<175)	.....	.....	9.2 (6.9)	.....	.....
130[le]KW<225 (175[le]HP<300)	.....	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225[le]KW<450 (300[le]HP<600)	.....	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450[le]KW[le]560 (600[le]HP[le]750)	.....	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)	.....	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

Table 3 to Subpart IIII of Part 60._Certification Requirements for Stationary Fire Pump Engines [As stated in § 60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:]

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to § 60.4202(d)
KW<75 (HP<100).....	2011
75[le]KW<130 (100[le]HP<175).....	2010
130[le]KW[le]560 (175[le]HP[le]750).....	2009
KW>560 (HP>750).....	2008

Table 4 to Subpart IIII of Part 60._Emission Standards for Stationary Fire Pump Engines [As stated in §§ 60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NOX	CO	PM
KW<8 (HP<11).....	2010 and earlier.....	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011+.....	7.5 (5.6)	.....	0.40 (0.30)
8[le]KW<19 (11[le]HP<25).....	2010 and earlier.....	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011+.....	7.5 (5.6)	.....	0.40 (0.30)
19[le]KW<37 (25[le]HP<50).....	2010 and earlier.....	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011+.....	7.5 (5.6)	.....	0.30 (0.22)
37[le]KW<56 (50[le]HP<75).....	2010 and earlier.....	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ \1\.....	4.7 (3.5)	.....	0.40 (0.30)
56[le]KW<75 (75[le]HP<100).....	2010 and earlier.....	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ \1\.....	4.7 (3.5)	.....	0.40 (0.30)
75[le]KW<130 (100[le]HP<175).....	2009 and earlier.....	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+ \2\.....	4.0 (3.0)	.....	0.30 (0.22)
130[le]KW<225 (175[le]HP<300).....	2008 and earlier.....	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ \3\.....	4.0 (3.0)	.....	0.20 (0.15)
225[le]KW<450 (300[le]HP<600).....	2008 and earlier.....	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ \3\.....	4.0 (3.0)	.....	0.20 (0.15)
450[le]KW[le]560 (600[le]HP[le]750)..	2008 and earlier.....	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+.....	4.0 (3.0)	.....	0.20 (0.15)
KW>560 (HP>750).....	2007 and earlier.....	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008+.....	6.4 (4.8)	.....	0.20 (0.15)

\1\ For model years 2011-2013, manufacturers, owners and operators of fire pump stationary CI CE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.
\2\ For model years 2010-2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.
\3\ In model years 2009-2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

Table 5 to Subpart IIII of Part 60._Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in § 60.4210(f) and the recordkeeping requirements in § 60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19[le]KW<56 (25[le]HP<75).....	2013
56[le]KW<130 (75[le]HP<175).....	2012
KW>=130 (HP>=175).....	2011

Table 8 to Subpart IIII of Part 60._Applicability of General Provisions to Subpart IIII [As stated in § 60.4218, 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 § 60.4219.
§ 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 Recordkeeping.	Yes.....	Except that § 60.7 only apply as specified in § 60.4214(a).
§ 60.8.....	Performance tests.....	Yes.....	Except that § 60.8 only applies to stationary CI ICE with a displacement of (>=30 liters per cylinder and engines that are not certified.
§ 60.9.....	Availability of information.	Yes.....	
§ 60.10.....	State Authority.....	Yes.....	
§ 60.11.....	Compliance with standards and maintenance requirements	No.....	Requirements are specified in subpart IIII.
§ 60.12.....	Circumvention.....	Yes.....	
§ 60.13.....	Monitoring requirements...	Yes.....	Except that § 60.13 only applies to stationary CI ICE with a displacement of (>=30 liters per cylinder.
§ 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.....	

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name:	Indiana Biofuels, Inc.
Source Address:	Approximately 3,000 feet east of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, Indiana 46176
Mailing Address:	14 Wall Street, 20th Floor, New York, NY 10005
FESOP Permit No.:	F145-24857-00067

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:
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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) EMERGENCY OCCURRENCE REPORT

Source Name:	Indiana Biofuels, Inc.
Source Address:	Approximately 3,000 feet east of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, Indiana 46176
Mailing Address:	14 Wall Street, 20th Floor, New York, NY 10005
FESOP Permit No.:	F145-24857-00067

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

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

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

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

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

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

A certification is not required for this report.

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

FESOP Quarterly Report

Source Name: Indiana Biofuels, Inc.
Source Address: Approximately 3,000 feet east of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, Indiana 46176
Mailing Address: 14 Wall Street, 20th Floor, New York, NY 10005
FESOP Permit No.: F145-24857-00067
Facility: EU67, EU68, EU69, and EU70
Parameter: Input of natural gas
Limit: Less than 3,175 MMCF per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Indiana Biofuels, Inc.
Source Address: Approximately 3,000 feet east of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, Indiana 46176
Mailing Address: 14 Wall Street, 20th Floor, New York, NY 10005
FESOP Permit No.: F145-24857-00067
Facility: Ethanol Loading Racks
Parameter: Denatured Ethanol Loadout
Limit: Less than 115,500,000 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Indiana Biofuels, Inc.
S Source Address: Approximately 3,000 feet east of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, Indiana 46176
Mailing Address: 14 Wall Street, 20th Floor, New York, NY 10005
FESOP Permit No.: F145-24857-00067
Facility: Emergency Generator (EU71)
Parameter: Operating Hours
Limit: Less than 200 hours per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Indiana Biofuels, Inc.
Source Address: Approximately 3,000 feet east of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, Indiana 46176
Mailing Address: 14 Wall Street, 20th Floor, New York, NY 10005
FESOP Permit No.: F145-24857-00067
Facility: Emergency Fire Pump (EU72)
Parameter: Operating Hours
Limit: Less than 200 hours per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Indiana Biofuels, Inc.
Source Address: Approximately 3,000 feet east of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, Indiana 46176
Mailing Address: 14 Wall Street, 20th Floor, New York, NY 10005
FESOP Permit No.: F145-24857-00067

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

Page 1 of 2

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 ANo deviations occurred this reporting period@.
□ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.
□ 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 Biofuels, Inc.
Approximately 3,000 feet east of Intersection
County Road N200W and W. Boggstown Rd
Shelbyville, Indiana 46176

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 Biofuels, Inc. approximately 3000 feet east of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, Indiana 46176, completed construction of the stationary ethanol production plant on_____in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on_____and as permitted pursuant to New Source Construction Permit and Federally Enforceable State Operating Permit No. 24857, Plant ID No. 145-00067 , issued on _____.

5. ***Note to the Permittee: Cross through this paragraph 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

Fugitive Dust Control Plan

Fugitive Dust Control Plan

Indiana Biofuels, Inc.

Prepared For:

Indiana Biofuels, Inc.
c/o NexGen Biofuels, Inc.
14 Wall Street, 20th Floor
New York, NY 10005

Pinnacle Proposal No:

MN06339.09

Date:

July 9, 2007

Pinnacle Engineering, Inc.
7389 Airport View Dr SW, Suite 400
Rochester, Minnesota 55902

11541 95th Avenue North
Maple Grove, MN 55369

Fugitive Dust Control Plan

Indiana Biofuels, Inc.
3,000 feet east of the intersection of N 200 W & West Boggstown Road
Shelbyville, Indiana 46176

1.0 Objective

This document outlines the truck haul road fugitive dust control measures that will be implemented at the Indiana Biofuels, Inc. fuel grade ethanol production facility located in Shelbyville, Indiana, a 110 million gallon per year (MMGal/yr) ethanol manufacturing facility. The potential fugitive particulate emissions, as defined in 326 IAC 6-5-2, from the proposed ethanol plant are greater than 25 tons/yr. Therefore, the requirements of 326 IAC 6-5 are applicable which requires Indiana Biofuels, Inc. to develop, maintain, and implement a Fugitive Dust Control Plan (FDCP) to control emissions from the plant. Indiana Biofuels, Inc. has developed this FDCP in order to satisfy the requirements of 326 IAC 6-5 and to reduce fugitive dust emissions at its facility. This FDCP is considered a supplemental document to the New Source Construction Permit and Federally Enforceable State Operating Permit (FESOP) Application for Indiana Biofuels, Inc. as submitted to the Indiana Department of Environmental Management (IDEM) on May 29, 2007.

2.0 Scope & Application

This plan applies to the control of fugitive dust emissions which may originate through the truck hauling and other processes. Fugitive dust is generated from grain and DDG handling and from the contact between the roads and the vehicle tires causing the re-suspension of loose material on the road surface. This plan also defines preventative and corrective actions to inhibit the buildup and dispersion of fugitive dust emissions at the Indiana Biofuels, Inc. ethanol facility.

Indiana Biofuels, Inc. proposes to control fugitive dust generated from the following truck hauling activities:

- Grain Receiving Incoming and Outgoing Haul Trucks at Indiana Biofuels, Inc.
- Denaturant Shipping Incoming and Outgoing Haul Trucks at Indiana Biofuels, Inc. Denatured Ethanol Shipping Incoming and Outgoing Haul Trucks at Indiana Biofuels, Inc.
- Wet Cake Shipping Incoming and Outgoing Haul Trucks at Indiana Biofuels, Inc.

Other sources of fugitive PM/PM_{10} emissions associated with the operation of the Indiana Biofuels ethanol plant include:

- Grain Receiving (truck & rail)
- Dried Distiller Grains (DDG) handling, and loadout

The amount of grain received and DDG handled and shipped in a calendar year can be found in the original construction permit application emission calculations, Appendix C of the document. There will be no outside storage of grain or DDG.

3.0 Control Methods & Frequency

All paved roads will be cleaned using a vacuum sweeper at least once per week, weather permitting. This schedule may be modified, as required, based on suggested actions due to daily observations by specified observers, by IDEM request, or as identified by Indiana Biofuels, Inc. employees following guidelines set forth in this program. Paved road vacuum sweeping as described above will not be conducted on days where rain, snow, or other adverse weather events occur. Figure 1 in Attachment A of this FDCP depicts the paved roads (red/blue arrows) at the Indiana Biofuels, Inc. facility.

When maintenance is being performed on the vacuum sweeper that results in significant downtime such that the sweeping/vacuum frequency outlined in this document cannot be performed, Indiana Biofuels, Inc. will rent or contract an alternate unit that will sweep and/or vacuum in a similar manner. The alternate unit will be used until the primary vacuum sweeper is operational. If an alternate unit is not feasibly available to rent, Indiana Biofuels, Inc. will spray the roads with water or another dust control substance to temporarily control fugitive road dust until the vacuum sweeper is operational or another unit can be rented.

For each day of operation, Indiana Biofuels, Inc. will conduct a visual survey of the plant property and haul roads to determine if visible fugitive emissions are being generated and leaving plant property. Implementation of fugitive dust controls shall be taken upon observation of visible fugitive emissions leaving plant property or more frequently in accordance with the FDCP. Documentation of all fugitive dust control measures implemented and daily surveys shall be maintained in a log accompanying the FDCP. Observers will navigate the haul road system once daily to determine if excessive fugitive dust is present on the paved haul roads.

Corrective actions will be taken if observers identify any of the following:

- Visible dust created by motor vehicle traffic leaving the plant property
- Dust or debris, visible by sight, on all paved roads
- Buildup or accumulation of excessive dirt/debris on all paved roads
- Dust being blown around by the wind

Signage will be posted to limit the truck traffic speed to 15 miles per hour (mph).

All other operations at the plant that could produce fugitive PM/PM_{10} emissions are enclosed and controlled by state-of-the-art air emission control equipment (i.e. baghouses) to reduce or eliminate fugitive PM/PM_{10} emissions.

Grain receiving and DDG loading and shipping operations are conducted within enclosed buildings. Each of the grain receiving dump pits and associated elevators and conveyors are controlled with high efficiency fabric filter baghouses. All three of the DDG loadout spouts and associated conveyors and elevators are also controlled with high efficiency fabric filter baghouses.

4.0 Preventative Actions

No persons at the Indiana Biofuels, Inc. facility may cause or permit the handling, transporting, or storage of any material in a manner which may allow particulate matter to become airborne in such quantities and concentrations that it remains visible in the ambient air beyond the premises where the event originates. Further, no person may cause or permit a building or its appurtenances, a road, a driveway, or an open area to be constructed, used, repaired, or demolished without applying all such reasonable fugitive dust control measures as may be necessary.

Preventative measures currently in place will and do include the growing and maintaining of vegetation on all barren dirt areas to prevent the origination of fugitive dust. Further preventative actions include the discouragement, through communication, of employees, contractors, visitors and vendors from tracking mud or other debris onto the Indiana Biofuels, Inc. paved road system.

5.0 Recordkeeping

Daily observations log sheets will be maintained and kept on site for a minimum of five (5) years.

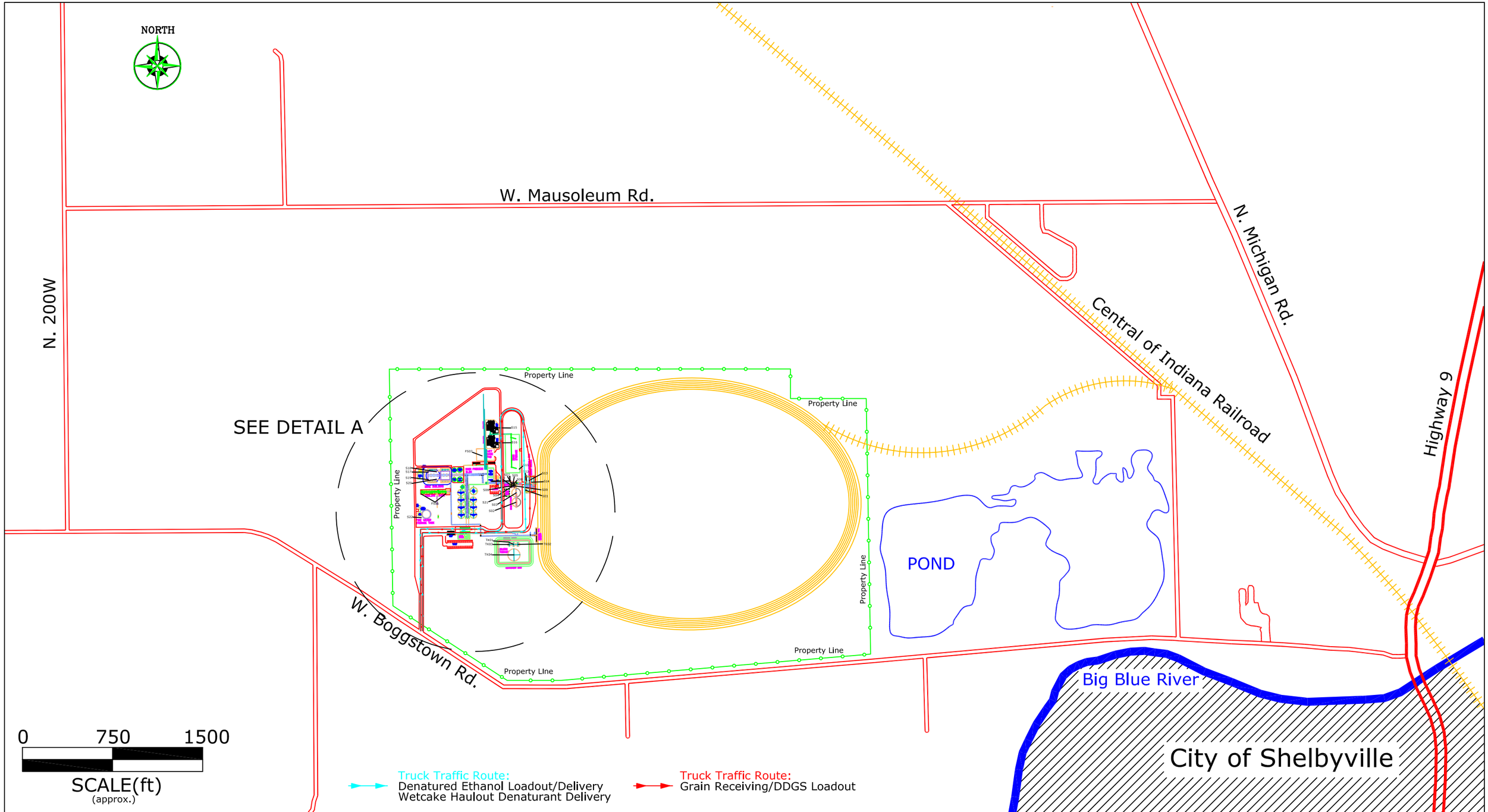
6.0 Responsible Official

The Responsible Official (RO) will execute the FDCP for Indiana Biofuels, Inc. in accordance with this document. The RO's contact information is as follows:

NexGen Biofuels, Inc.
c/o Indiana Biofuels, Inc.
Aruna Raj
President
14 Wall Street, 20th Floor
New York, NY 10005

Attachment A

Facility Site Layouts



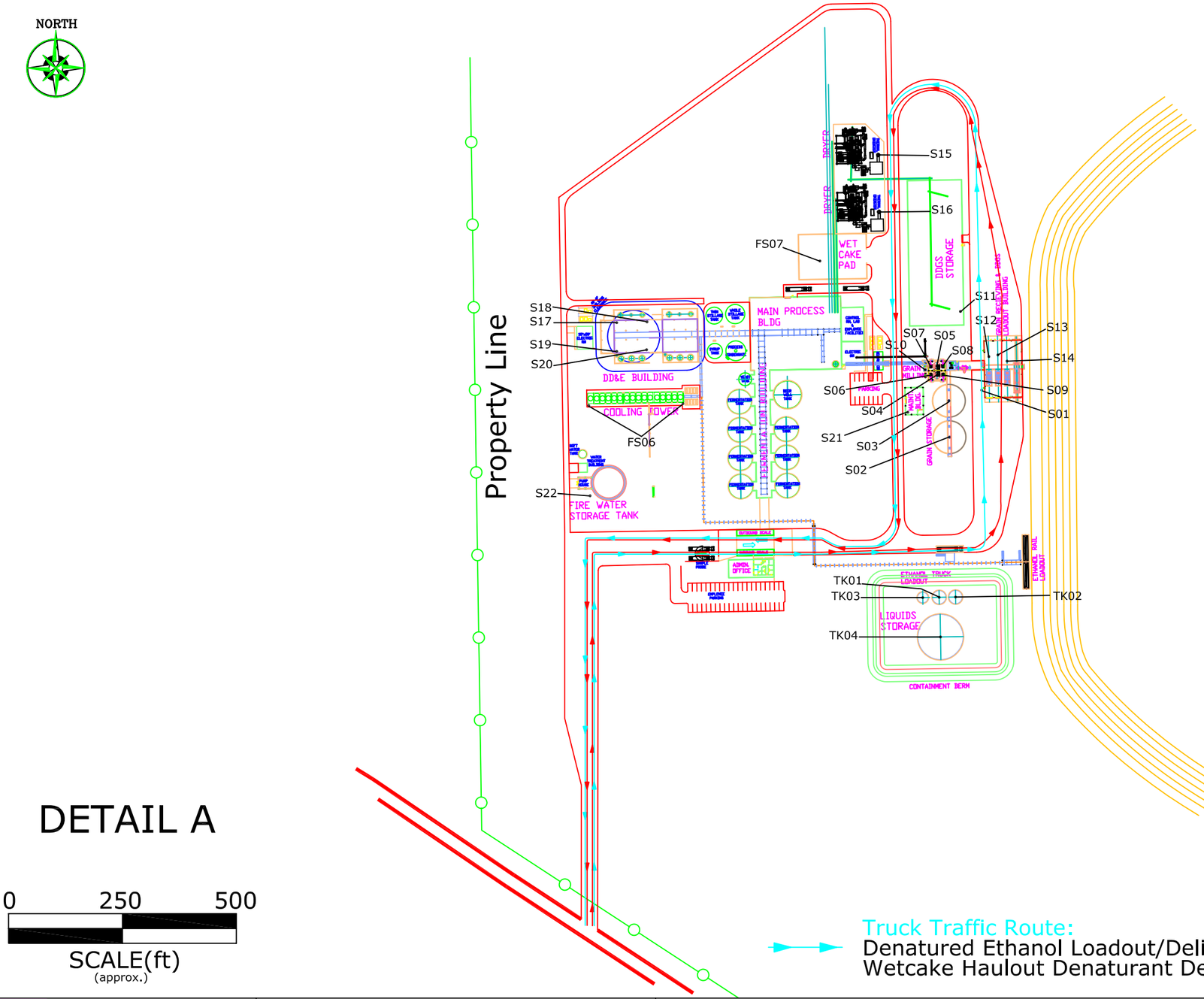
Pinnacle Engineering
11541 95th Ave N.
Maple Grove, MN 55369
(763) 315-4501
www.pineng.com

ethanol
Better Fuel. Cleaner Air.

Indiana Biofuels, Inc.
110 MMGal/yr Ethanol Plant
Shelbyville,Shelby Co., Indiana

REVISIONS		
Name	Description	Date

PREPARED BY: DTC
CHECKED BY: RS
DESIGNED BY:
DATE: 5-21-07
FILE: Site Plan



DETAIL A

0 250 500

SCALE(ft)
(approx.)

Truck Traffic Route:
Denatured Ethanol Loadout/Delivery
Wetcake Haulout Denaturant Delivery

Truck Traffic Route:
Grain Receiving/DDGS Loadout

Pinnacle Engineering
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Maple Grove, MN 55369
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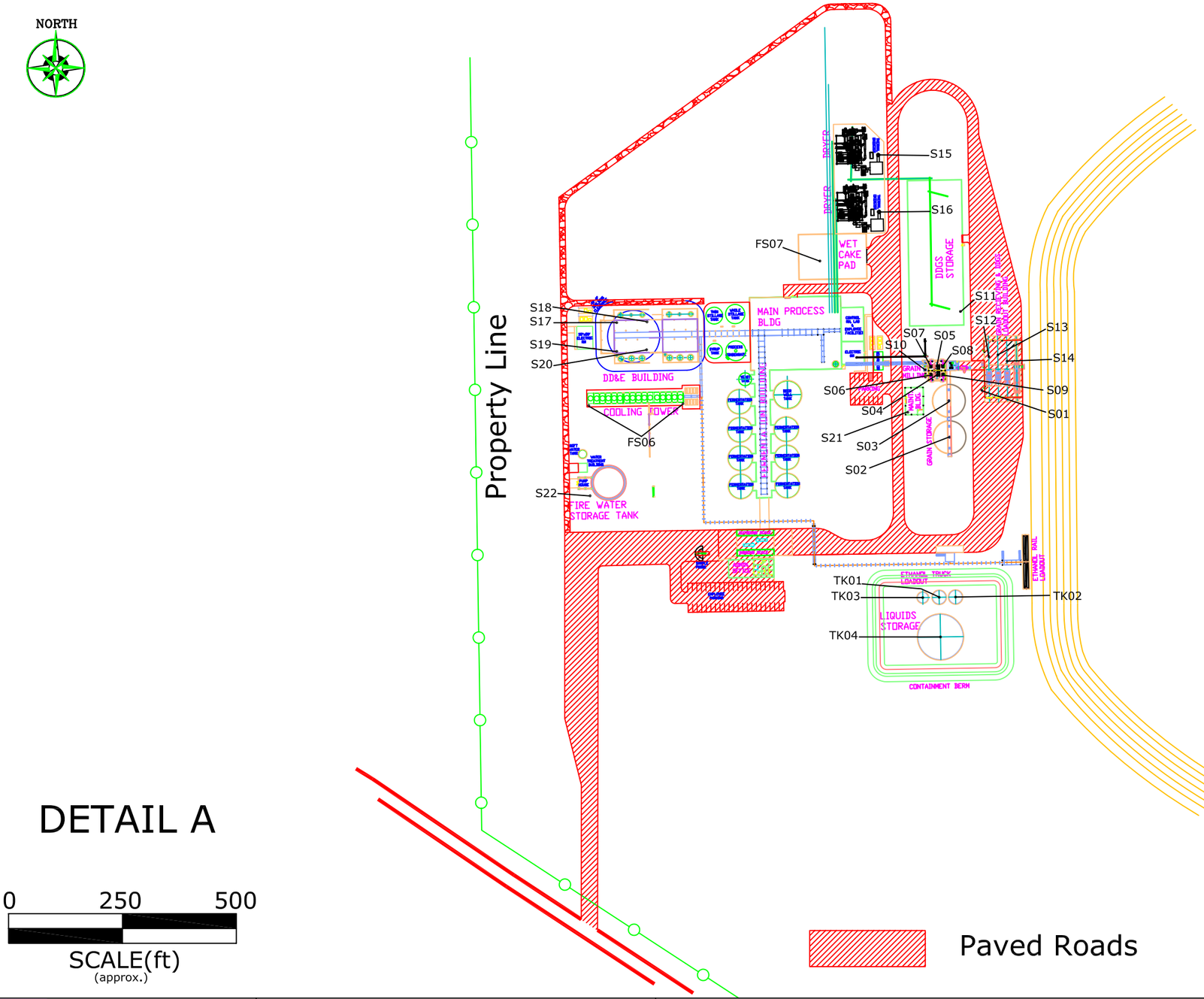
www.pineng.com

ethanol
Better Fuel. Cleaner Air.

Indiana Biofuels, Inc.
110 MMGal/yr Ethanol Plant
Shelbyville,Shelby Co., Indiana

REVISIONS		
Name	Description	Date

PREPARED BY: DTC
CHECKED BY: RS
DESIGNED BY:
DATE: 5-21-07
FILE: Site Plan-Detail



DETAIL A

0 250 500

SCALE(ft)
(approx.)

Paved Roads

Gravel Roads(Service Roads)

Pinnacle Engineering
11541 95th Ave N.
Maple Grove, MN 55369
(763) 315-4501
www.pineng.com

ethanol
Better Fuel. Cleaner Air.

Indiana Biofuels, Inc.-FDCP
110 MMGal/yr Ethanol Plant
Shelbyville,Shelby Co., Indiana

REVISIONS		
Name	Description	Date

PREPARED BY: DTC
CHECKED BY: RS
DESIGNED BY:
DATE: 5-21-07
FILE: Site Plan-Detail

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document
For a New Construction Federally Enforceable State Operating Permit (FESOP)

Source Background and Description

Source Name:	Indiana Biofuels, Inc.
Source Location:	Approximately 3,000 feet east of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, Indiana 46176
County:	Shelby
SIC Code:	2869
Operation Permit No.:	F145-24857-00067
Permit Reviewer:	ERG/JR

On September 1, 2007, the Office of Air Quality (OAQ) had a notice published in the Shelbyville News of Shelbyville, Indiana stating that Indiana Biofuels, Inc. (Indiana Biofuels) had applied for a Federally Enforceable State Operating Permit (FESOP). 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. 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. A public meeting was held on October 17, 2007 and the public comment period was extended to October 22, 2007. The addendum provides comments received during the public comment period, including the public meeting held on October 17, 2007.

Comments on the draft permit were submitted by Renee Theobald, Laura and Randy Jobe, Mr. and Mrs. Mike Coffey, Mr. and Mrs. Steve Ferguson, Norman and Jacqueline Wetzel, Tami Grubbs, Margaret Brunk, Larry Hill, Gary Borchert, Sandra Howley, Donna Martin, Mindy Martin, Ronald Martin, and Lola Scott. No changes were made to the permit as a result of these comments.

Comment 1:

Renee Theobald wants to know whether the operating permit states that Indiana Biofuels will have continuous stack/emission monitoring. Renee Theobald also wants to know why the permit does not require an annual relative accuracy test audit for PM10, VOC, CO and NOx.

Response to Comment 1:

Indiana Biofuels, Inc. is not subject to any state or federal rule that requires them to continuously monitor stack emissions. However, IDEM, OAQ requires testing for the major emission points located at the source. Furthermore, IDEM, OAQ requires continuous monitoring of the control equipment to ensure the controls are operating correctly. IDEM, OAQ also has the authority to require additional testing at any time if monitoring or other information indicates that a change may have occurred in the operation of the process and/or control device.

Comment 2:

Renee Theobald wants to know what the capacity of the plant will be.

Response to Comment 2:

The permit limits the denatured ethanol loadout rate to 115,500,000 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

Comment 3:

Renee Theobald wants to know how much PM10, VOC, CO and NOx that Indiana Biofuels will emit and asks IDEM to clarify what it means in the permit where it says that the source could potentially release over 100 tons per year of the above said pollutants.

Response to Comment 3:

An emission source which qualifies as a major source under Part 70 rules (and hence needs a Title V permit) may voluntarily accept federally enforceable limits on air pollutant emissions to obtain a FESOP rather than the Title V permit. The federally enforceable limits in a FESOP are derived from sourcewide emissions calculations that account for the maximum potential emissions from each emission unit at the source. Certain operations have minimal potential to emit (PTE); therefore, it is sometimes unnecessary to limit and/or require monitoring for these operations. However, any emissions from an unlimited emission unit are still counted in their entirety towards the sourcewide emissions when determining the permitting level. Collectively, the limited PTE of certain activities along with the unlimited PTE of the remaining activities located at the source must be below major thresholds to be considered a FESOP. The unlimited PM, PM10, VOC, CO, and NOx emissions from Indiana Biofuels, Inc. are greater than 100 tons per year. However, this FESOP will limit emissions from Indiana Biofuels, Inc. to less than 52.5 tons of PM, 61.4 tons of PM10, 68.0 tons of VOC, 98.8 tons of CO, 95.3 tons of NOx, 17.3 tons of total Hazardous Air Pollutants (HAPs), and less than 10.0 tons of any single HAP.

Comment 4:

Renee Theobald wants to know whether this ethanol plant will emit formaldehyde, acetic acid, and acetaldehyde?

Response to Comment 4:

Formaldehyde and Acetaldehyde are common HAP pollutants emitted from ethanol production plants (including Indiana Biofuels). Although Indiana Biofuels has the potential to emit over 370 tons of total HAPs, the proposed air permit will limit the facility to 17.3 tons of total HAPs and less than 10.0 tons of any single HAP. Acetic Acid is a VOC that may be emitted from Indiana Biofuels. Although Indiana Biofuels has the potential to emit over 2,800 tons of VOCs, the proposed air permit will limit the facility to 68.0 tons of total VOCs.

Comment 5:

An attendee of the October 17, 2007 public meeting in Shelbyville submitted written comments that the scorecard.org website lists Shelby County as eleventh out of all Indiana counties for the release of neurotoxins, and that Shelby County releases more neurotoxins into the air than Marion County. The commenter also stated that Shelby County has an ozone rating of “C”, which puts 19,000 county residents who have preexisting health conditions, like asthma, bronchitis, cardiovascular disease and diabetes, at risk. There were also several other comments regarding ambient air quality concerns. Laura and Randy Jobe submitted comments concerning air quality, potential health hazards and potential property damage caused by pollution. Laura Jobe stated that she was extremely concerned for the potential damage to the health of her family, environment, property, and overall quality of life. Norman and Jackie Wetzel commented that they are concerned about the total amount of air pollutants and the volatile organic compound pollutants. Gary A. Borchert, O.D. commented that the proposed plant would be too close to the Shelbyville city limits and would adversely affect air quality in the community. Mike and Denise Coffey commented that they are concerned about air quality.

Response to Comment 5:

The federal Clean Air Act requires the United States Environmental Protection Agency (U.S. EPA) to set National Ambient Air Quality Standards (NAAQS) for six criteria pollutants. These criteria pollutants are carbon monoxide (CO), lead, sulfur dioxide (SO_2), particulate matter to a diameter of 2.5 microns (PM2.5), nitrogen oxides (NOx) and ground level ozone. More information about each of these pollutants is available at http://www.epa.gov/air/airpollutants.html on U.S. EPA's website. The U.S. EPA sets these standards at levels that protect human health, which is why the NAAQS are often referred to as the federal health standards for outdoor air. The NAAQS limit for all criteria pollutants is set low enough to protect the health of even the most sensitive persons, such as children, the elderly and people with preexisting health conditions, such as asthma, bronchitis and cardiovascular disease. Each NAAQS also has a secondary standard set to protect crops, livestock and buildings. The secondary standard is set to protect property from damage by air pollutants. The complete table of the NAAQS for all six criteria pollutants can be found at the http://www.epa.gov/air/criteria.html website. EPA's website http://www.epa.gov/air/urbanair/6poll.html provides more detailed information about the health effects of these six common air pollutants and why they are regulated.

The federal Clean Air Act requires the U.S. EPA to determine whether the ambient air in any area of the United States fails to meet any of the National Ambient Air Quality Standards (NAAQS). Any area that fails to meet one or more of the NAAQS will be designated as in "nonattainment" for that pollutant. Large air pollution sources in a nonattainment area are subject to additional regulations and U.S. EPA may require that additional steps be taken that will result in the area meeting the NAAQS. The U.S. EPA works with Indiana, Illinois and Kentucky in monitoring air pollution levels and in determining when air pollution modeling is needed.

Shelby County, along with eight other counties in central Indiana, was designated as being in nonattainment of the 8-hour ozone standard in 2004. In March 2007, IDEM petitioned the U.S. EPA to redesignate Shelby County in attainment for the 8-hour ozone standard. This petition was based on three consecutive years of monitoring data that showed compliance with the standard. On October 11, 2007, U.S. EPA approved IDEM's petition and is redesignating all of central Indiana, including Shelby County, to attainment for the 8-hour ozone standard. Shelby County is now in attainment for all the National Ambient Air Quality Standards.

The draft permit limits the emission of each air pollutant to less than 100 tons per year. The total limited amount of each pollutant is 98.8 tons per year for carbon monoxide (CO), 61.4 tons per year of particulate matter to a diameter of 10 microns (PM10), 95.3 tons per year of nitrogen oxides (NOx) and 68.0 tons per year of volatile organic compounds (VOC). This level of emissions will not cause a violation of any NAAQS. In addition, the draft permit would limit total HAPs to 17.3 tons per year, and less than 10.0 tons of any single HAP.

IDEM could not find information regarding neurotoxins on the scorecard website. IDEM does not track neurotoxins as a separate category of pollutants.

IDEM conducts sampling of the ambient air at monitoring stations around Indiana. This air monitoring measures whether the NAAQS are being met. Information about Indiana's air monitoring system and monitoring results is available at http://www.in.gov/idem/programs/air/amb/index.html. Information about current and expected air pollution levels is on IDEM's SmogWatch site at http://www.in.gov/apps/idem/smog/ on the internet.

Comment 6:

An attendee of the October 17, 2007 public meeting in Shelbyville submitted written comments concerning releases of recognized carcinogens. The attendee stated that the scorecard.org website ranked Shelby County among the dirtiest counties for the release of recognized carcinogens.

Response to Comment 6:

Many HAPs are probable or known carcinogens. Information on the health effects of hazardous air pollutants can be found at http://yosemite.epa.gov/oswer/ceppoweb.nsf/content/ChemicalsInYourCommunity.htm . Information pertaining to emissions of hazardous air pollutants in Shelby County area can be found at http://www.epa.gov/tri or http://www.in.gov/idem/prevention/tri/index.html on the internet.

IDEM, OAQ conducts ambient monitoring of HAPs as part of the toxics monitoring program. IDEM, OAQ currently monitors for air toxics at 10 locations across the state. The closest air toxics monitors to Shelby County are in Marion County. The current monitoring data is available at http://www.in.gov/idem/programs/air/smog/toxicmonitors.html on IDEM's website. The data collected did not indicate a threat or danger to Shelby County residents.

The draft permit limits the emissions of all HAPs to less than 17.3 tons per year, and less than 10.0 tons of any single HAP. This level of emission will not pose a threat or danger to Shelby County residents.

Comment 7:

Laura and Randy Jobe submitted a comment that they are concerned about potential health hazards from polluted water.

Response to Comment 7:

The draft air pollution control permit does not allow the discharge of water or any liquid. If the source is going to have such a discharge, it will need to apply for and obtain a National Pollution Discharge Elimination System (NPDES) permit from IDEM's Office of Water Quality. In addition, the source will have to have a Storm Water Permit. For additional information regarding NPDES and Storm Water Permits contact IDEM, OWQ employee Beth Tallon, e-mail: btallon@idem.IN.gov, telephone: (317) 232-8706 or toll free at (800) 451-6027, ext. 2-8706.

Comment 8:

Several comments were made with concerns about water use by Indiana Biofuels. Mike and Denise Coffey commented that they are concerned about water use. In addition, Renee Theobald commented that IDEM should have had someone at the public meeting held in Shelbyville on October 17, 2007 to answer citizens' questions regarding their water supply. Lastly, Laura Jobe wants to know how Indiana Biofuels might affect her well water.

Response to Comment 8:

IDEM, OAQ conducted the October 17, 2007 public meeting to address questions and comments regarding the draft air pollution control permit and air quality concerns in general. A separate state agency, the Indiana Department of Natural Resources, has jurisdiction over water supply issues. A state statute, Indiana Code (IC) 14-25-4, protects owners of most small-capacity water wells from significant ground water withdrawal facilities. The law defines a significant ground water withdrawal facility as "the ground water withdrawal facility of a person that, in the aggregate from all sources and by all methods, has the capability of withdrawing at least one hundred thousand (100,000) gallons of ground water in one (1) day." One hundred thousand gallons per day equals 70 gallons per minute. To be protected from a nearby significant ground water withdrawal facility, a small-capacity well must satisfy one of the following criteria:

- The well must be a properly functioning domestic well drilled prior to January 1, 1986.
- If completed after December 31, 1985, the well must be constructed in accordance with rules set forth in 312 Indiana Administrative Code 12, Water Well Drilling and Ground Water (http://www.in.gov/legislative/iac/T03120/A00120.PDF). These rules require certain minimum pump depths in domestic wells, and they specify how much of the source aquifer must be penetrated.

Indiana law does not protect one small-capacity well owner from another small-capacity well owner. If a well no longer furnishes its normal supply of water, and if it is suspected that the well is being affected by a nearby high-capacity ground water user, a written complaint may be submitted to the Director, Indiana Department of Natural Resources, 402 W. Washington Street, Room W256, Indianapolis, Indiana 46204. The DNR Division of Water will make an on-site investigation. If the investigation finds evidence that nearby high-capacity pumping has substantially lowered the water level in a small-capacity well, and the well is protected by IC 14-25-4, the high-capacity user can be declared liable and may be required to provide an alternate water supply. Questions about IC 14-25-4 or 312 IAC 12 may be directed to the Indiana Department of Natural Resources, Division of Water, Water Rights & Use Section (317-232-4160 or toll free 877-928-3755).

Comment 9:

An attendee of the October 17, 2007 public meeting in Shelbyville submitted written comments that IDEM had issued 37 Notices of Violation to sources in Shelby County from 1997-2007 for air, water and hazardous materials violations.

Response to Comment 9:

IDEM's Office of Enforcement issues Notices of Violation for violations of environment statutes, environmental rules and pollution control permits. Violators are subject to fines of up to $25,000 per day. Environmental enforcement is an essential part of environmental protection.

Comment 10:

Two members of the Shelby County Council, Tami Grubbs and Margaret Brunk, commented that the proposed ethanol plant appears to have been in the works for some time but that they were not notified about it until reading the Shelbyville newspaper a few days prior to September 28, 2007.

Response to Comment 10:

On June 6, 2007, IDEM, OAQ sent letters to the Shelbyville City Council, the Mayor and to the Shelby County Commissioners notifying them that Indiana Biofuels had filed an application and that the application was available for inspection at the local library. On August 28, 2007, IDEM, OAQ sent notices to the Shelbyville City Council, the Mayor and to the Shelby County Commissioners notifying them that Indiana Biofuels draft permit documents were available for inspection at the local library, that comments about the draft permit could be submitted to IDEM, OAQ and that a public hearing could be requested. IDEM, OAQ published the same notice in the local newspaper on September 2, 2007.

Comment 11:

Mike and Denise Coffey commented that they are concerned about increased noise, odor, road and rail traffic. Laura Jobe wants to know why Indiana Biofuels is considering a site so close to town and in a very populated area. She is also concerned that Shelby County is already heavily populated with factories emitting pollution and the County does not need any more sources of pollution. Larry Hill commented that he is in support of the proposed plant. He believes that the operation will benefit the local area.

Response to Comment 11:

IDEM, OAQ knows that these matters are of great personal concern to the commenters and other local residents. IDEM, OAQ does not have authority over noise, odor, or traffic on roads or railroads. Nor does IDEM, OAQ consider whether a proposed permit will have an economic benefit to the local economy. These matters are under the separate authority of local government units, such as a zoning board, county council or county commission. IDEM, OAQ is required to issue air pollution control permits to sources that have indicated that they can comply with all

applicable air pollution control requirements, whether or not the local government unit has made zoning or construction approvals.

Comment 12:

Laura Jobe wants to know why the air permit allowing Indiana Biofuels to construct at a site in Morristown, Indiana was declined.

Response to Comment 12:

The air permit allowing Indiana Biofuels to construct at a site in Morristown, Indiana was not declined by IDEM, OAQ. On October 30, 2006, IDEM, OAQ received an Federally Enforceable State Operating Permit application from Indiana Biofuels to construct and operate an ethanol production plant located at County Road 600 E and County Road 1100 N, Morristown, Indiana 46161. IDEM, OAQ issued this air permit on March 7, 2007; the permit number is F145-23832-00066.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a New Source Construction and Federally Enforceable State Operating Permit (FESOP)

Source Description and Location

Source Name:	Indiana Biofuels, Inc.
Source Location:	Approximately 3,000 feet east of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, Indiana 46176
County:	Shelby
SIC Code:	2869
Operation Permit No.:	F145-24857-00067
Permit Reviewer:	ERG/JR

The Office of Air Quality (OAQ) has reviewed a New Source Construction and FESOP application from Indiana Biofuels, Inc. relating to the construction and operation of an ethanol production plant.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Shelby County.

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

(a) Shelby County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.

(b) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NOx emissions are considered when evaluating the rule applicability relating to ozone standards. Shelby County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability – Entire Source section.

(c) Shelby County has been classified as attainment or unclassifiable in Indiana for for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

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

(e) Fugitive Emissions
The primary source does not fall under one of the 28 listed source categories and there are no applicable New Source Performance Standards that were in effect on August 7, 1980; therefore, fugitive emissions are not counted towards PSD or Emission Offset applicability for the primary source. However, according to a U.S. EPA Region V guidance memo addressed to Indiana Department of Environmental Management (dated March 6, 2003), since the combined heat input capacity of the four (4) boilers located at Indiana Biofuels, Inc. is greater than 250 mmBtu/hr, the boilers fall under one of the 28 listed source categories and are considered "nested" within a non-listed source. Therefore, fugitive emissions from the boilers located at this source are counted for purposes of determining whether a source is a major source under the PSD, Emission Offset, nonattainment NSR, or Title V programs.

Description of New Source Review

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-8-4(11):

(a) One (1) grain receiving area, approved for construction in 2007, receiving a maximum of 1,153,558 tons of grain per year, with particulate emissions controlled by a baghouse, identified as C01, and exhausting through stack S01, consisting of the following:

(1) One (1) grain truck dump pit/Auger, identified as EU01, with a maximum capacity of 60,000 bushels of corn per hour, and consisting of the following equipment:

(A) One (1) grain conveyor, identified as EU02.

(B) One (1) grain elevator, identified as EU03.

(2) One (1) grain truck dump pit/Auger, identified as EU04, with a maximum capacity of 60,000 bushels of corn per hour, and consisting of the following equipment:

(A) One (1) grain conveyor, identified as EU05.

(B) One (1) grain elevator, identified as EU06.

(3) One (1) grain rail dump pit/Auger #1, identified as EU07, with a maximum capacity of 60,000 bushels of corn per hour, and consisting of the following equipment:

(A) One (1) grain conveyor, identified as EU08.

(B) One (1) grain elevator, identified as EU09.

(b) One (1) internal handling system, approved for construction in 2007, with particulate emissions controlled by a baghouse, identified as C02, and exhausting through stack S02, consisting of the following:

(1) One (1) transfer conveyor, identified as EU10, with a maximum capacity of 60,000 bushels of corn per hour.

(2) One (1) corn storage silo #1, identified as EU11, with a maximum storage capacity of 600,000 bushels of corn.

(c) One (1) internal handling system, approved for construction in 2007, with particulate emissions controlled by a baghouse, identified as C03, and exhausting through stack S03, consisting of the following:

(1) One (1) transfer conveyor, identified as EU12, with a maximum capacity of 60,000 bushels of corn per hour.

(2) One (1) corn storage silo, identified as EU13, with a maximum storage capacity of 600,000 bushels of corn.

(d) One (1) surge bin #1, identified as EU14, approved for construction in 2007, with a maximum capacity of 10,000 bushels of corn and particulate emissions controlled by a baghouse, identified as C04, and exhausting through stack S04.

(e) One (1) surge bin #2, identified as EU16, approved for construction in 2007, with a maximum capacity of 10,000 bushels of corn and particulate emissions controlled by a baghouse, identified as C05, and exhausting through stack S05.

(f) One (1) scalper, identified as EU15, approved for construction in 2007, with a maximum capacity of 5,600 bushels of corn and particulate emissions uncontrolled.

(g) Four (4) hammermills, identified as EU17, EU18, EU19, and EU20, approved for construction in 2007, each with a maximum throughput rate of 2,248 bushels of corn per hour, controlled by baghouses C06, C07, C08, and C09, and exhausting through stacks S06, S07, S08, and S09, respectively.

(h) One (1) ground grain handling area, approved for construction in 2007, with particulate emissions controlled by a baghouse, identified as C10, and exhausting through stack S10, consisting of the following:

(1) One ground grain conveyor, identified as EU21, with a maximum capacity of 10,000 bushels per hour.

(2) One ground corn storage bin, identified as EU22, with a maximum capacity of 15,000 bushels of corn per hour.

(3) One ground grain conveyor, identified as EU23, with a maximum capacity of 10,000 bushels per hour.

(i) One (1) DDGS loadout operation, approved for construction in 2007, with a maximum throughput rate of 360,036 tons per year, consisting of the following:

(1) One (1) DDGS reclaim operation and DDGS elevator, identified as EU51 and EU52, with particulate emissions controlled by a baghouse, identified as C12, and exhausting through stack S11.

(2) One truck loadout operation, consisting of the following:

(A) One (1) DDGS conveyor, identified as EU53 and one (1) truck load spout, identified as EU54, with particulate emissions controlled by one (1) baghouse, identified as C13, and exhausting through stack S12.

(B) One (1) DDGS conveyor, identified as EU55 and one (1) truck load spout, identified as EU56, with particulate emissions controlled by one (1) baghouse, identified as C14, and exhausting through stack S13.

(3) One (1) DDGS conveyor, identified as EU57 and rail load spout, identified as EU58, with particulate emissions controlled by a baghouse, identified as C15, and exhausting through stack S14.

(j) One (1) fermentation process, approved for construction in 2007, controlled by a wet scrubber, identified as C11 and either of two (2) thermal oxidizers, identified as C16 and C17, each with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stacks S15 and S16, and consisting of the following:

(1) One (1) yeast slurry tank, identified as EU42.

(2) Seven (7) fermenters, identified as EU43, EU44, EU45, EU46, EU47, EU48, and EU49.

(3) One (1) beer well, identified as EU50.

Under NSPS, Subpart VV, equipment (as defined in 40 CFR 60.481) within a process unit is an affected facility.

(k) One (1) distillation process, approved for construction in 2007, controlled by either of two (2) thermal oxidizers, identified as C16 and C17, each with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stacks S15 and S16, and consisting of the following:

(1) One (1) yeast slurry tank, identified as EU24.

(2) Two (2) liquefaction tanks, identified as EU25 and EU26.

(3) One (1) process condensate tank, identified as EU27.

(4) One (1) beer column, identified as EU28.

(5) One (1) distillation stripper, identified as EU29.

(6) One (1) rectifier, identified as EU30.

(7) One (1) evaporation system, identified as EU31.

(8) One (1) whole stillage tank, identified as EU32.

(9) One (1) thin stillage tank, identified as EU33.

(10) One (1) syrup tank, identified as EU34.

(11) Four (4) stillage centrifuges, identified as EU35, EU36, EU37, and EU38.

(12) Two (2) molecular sieve units, identified as EU39 and EU40.

(13) One (1) 200 proof condenser, identified as EU41.

Under NSPS, Subpart VV, equipment (as defined in 40 CFR 60.481) within a process unit is an affected facility.

(l) Four (4) natural gas-fired boilers, identified as EU67, EU68, EU69, and EU70, approved for construction in 2007, each with a maximum heat input rate of 92.4 MMBtu/hr, with emissions exhausting to stacks S17, S18, S19, and S20, respectively.

Under 40 CFR, Subpart Dc, the boilers are considered to be new steam generating units.

(m) One (1) DDGS dryer and cooling system, approved for construction in 2007, with a maximum throughput rate of 360,036 tons of DDGS per year, consisting of the following:

(1) One (1) natural gas fired DDGS dryer, identified as EU59, with a maximum heat input rate of 90 MMBtu/hr, and one (1) DDGS cooler, identified as EU60, and

emissions controlled by one (1) thermal oxidizer, identified as C16, with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stack S15.

(2) One (1) natural gas fired DDGS dryer, identified as EU62, with a maximum heat input rate of 90 MMBtu/hr, and one (1) DDGS cooler, identified as EU63, and emissions controlled by one (1) thermal oxidizer, identified as C17, with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stack S16.

(n) One (1) ethanol loading system, consisting of one (1) truck loading spout, identified as EU65 and one (1) rail loading spout, identified as EU66, approved for construction in 2007, with a maximum throughput rate of 36,000 gallons per hour when loading trucks, and 60,000 gallons per hour when loading railcars, with emissions venting through either of two (2) thermal oxidizers, identified as C16 and C17, each with a maximum heat input capacity of 18 MMBtu/hr, exhausting through stacks S15 and S16.

Under NSPS, Subpart VV, equipment (as defined in 40 CFR 60.481) within a process unit is an affected facility.

(o) One (1) diesel-fired emergency generator, identified as EU71, approved for construction in 2007, with a maximum power output rate of 3,740 horsepower, and exhausting to stack S21.

Under 40 CFR 60, Subpart IIII, the emergency generator EU71 is considered a new stationary compression ignition (CI) internal combustion engine (ICE).

(p) One (1) diesel fired stationary fire pump, identified as EU72, approved for construction in 2007, with a maximum power output rate of 290 horsepower, and exhausting to stack S22.

Under 40 CFR 60, Subpart IIII, the diesel fire pump EU72 is considered a new certified National Fire Protection Association (NFPA) fire pump.

Insignificant Activities

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

(a) Noncontact cooling tower system, identified as FS06, with natural draft not regulated under a NESHAP.

(b) Replacement or repair of bags in baghouses and filters in other air filtration equipment.

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

(d) Blowdown for any of the following: sight glass, boiler, compressors, pumps, and cooling tower.

(e) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations.

(f) Other emission units, not regulated by a NESHAP, with PM10, NOx, and SO_2 emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths

(12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs:

(1) One (1) denaturant tank, identified as TK03, approved for constructed in 2007, storing petroleum material with a vapor pressure equivalent to or less than the vapor pressure of 13 RVP gasoline, with a maximum capacity of 75,000 gallons. [326 IAC 8-4-3]

(2) One (1) denatured ethanol storage tank, identified as TK04, approved for constructed in 2007, with a maximum capacity of 1,000,000 gallons.

(3) Two (2) ethanol storage tanks, identified as TK01 and TK02, approved for constructed in 2007, each with a maximum capacity of 100,000 gallons.

Under 40 CFR 60, Subpart Kb, storage tanks TK01 through TK04 are considered to be new volatile organic liquid storage tanks.

Enforcement Issues

There are no pending enforcement actions.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S01	Grain receiving baghouse	81	2.83	30,000	70
S02	Corn Storage Bin #1 Vent Filters	184	1.17x1.17	4,000	70
S03	Corn Storage Bin #2 Vent Filters	184	1.17x1.17	4,000	70
S04	Surge Bin #1 Vent Filters	75	0.83x0.83	2,000	70
S05	Surge Bin #2 Vent Filters	75	0.83x0.83	2,000	70
S06	Hammermill Baghouse #1	45	1.5	6,000	70
S07	Hammermill Baghouse #2	45	1.5	6,000	70
S08	Hammermill Baghouse #3	45	1.5	6,000	70
S09	Hammermill Baghouse #4	45	1.5	6,000	70
S10	Ground Corn Storage Bin Baghouse	45	1.5	3,000	70
S11	DDGS Reclaim Baghouse	17	1.5	2,000	70
S12	DDGS Loadout Baghouse #1	26	1.5	2,000	70
S13	DDGS Loadout Baghouse #2	26	1.5	2,000	70
S14	DDGS Loadout Baghouse #3	26	1.5	2,000	70
S15	Regenerative Thermal Oxidizer (RTO) Stack #1	90	5	98,377	320
S16	Regenerative Thermal Oxidizer (RTO) Stack #2	90	5	98,377	320
S17	Boiler #1	50	3	30,000	380

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S18	Boiler #2	50	3	30,000	380
S19	Boiler #3	50	3	30,000	380
S20	Boiler #4	50	3	30,000	380
S21	Emergency Generator	15	1.67	17,019	1,022
S22	Emergency Fire Pump	15	0.75	1,600	200

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 through 13). The PTE of storage tanks is 1.01 tons/yr of VOC, which was calculated using EPA TANKS 4.0 software. The emissions calculations for storage tanks were provided by the applicant and have been verified and found to be accurate and correct.

Permit Level Determination – FESOP

Pursuant to 326 IAC 2-7-1(29), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-8.11.1. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	Greater than 100
PM10	Greater than 100
SO_2	Less than 100
VOC	Greater than 100
CO	Greater than 100
NO_X	Greater than 100

HAPs	Potential to Emit (tons/yr)
Acetaldehyde	68.6
Formaldehyde	10.1
Ethyl benzene	11.7
Hexane	16.4
Toluene	97.3
Xylene	97.3
Other HAPs	Negligible
Total HAPs	Greater than 25

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10, VOC, CO, and NOx are equal to or greater than one hundred (100) tons per year. This source, which would otherwise be subject to the provisions of 326 IAC 2-7, will limit its emissions below the Title V levels.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is greater than twenty-five (25) tons per year. This source, which

would otherwise be subject to the provisions of 326 IAC 2-7, will limit its HAP emissions below the Title V levels.

(c) Fugitive Emissions
The primary source does not fall under one of the 28 listed source categories and there are no applicable New Source Performance Standards that were in effect on August 7, 1980; therefore, fugitive emissions are not counted towards PSD, Nonattainment NSR, or Emission Offset applicability for the primary source. However, according to a U.S. EPA Region V guidance memo addressed to Indiana Department of Environmental Management (dated March 6, 2003), since the combined heat input capacity of the four (4) boilers located at Indiana Biofuels, Inc. is greater than 250 mmBtu/hr, the boilers fall under one of the 28 listed source categories and are considered "nested" within a non-listed source. Therefore, fugitive emissions from the boilers located at this source are counted for purposes of determining whether a source is a major source under the PSD, Emission Offset, nonattainment NSR, or Title V programs.

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 enforceable only after issuance of this FESOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential To Emit (tons/year)						
Process/Emission Unit	**PM**	**PM10**	**SO_2**	**VOC**	**CO**	**NO_x**	**HAPs**
Boilers (EU67, EU68, EU69, and EU70)	3.02	12.1	0.95	8.73	29.1	32.4	3.12
Grain Receiving (EU01, EU02, EU03, EU04, EU05, EU05, EU06, EU07, EU08, and EU09)	5.63	5.63	-	-	-	-	-
Corn Storage Bin #1 Vent Filters (EU10 and EU11)	1.50	1.50	-	-	-	-	-
Corn Storage Bin #2 Vent Filters (EU12 and EU13)	1.50	1.50	-	-	-	-	-
Surge Bin #1 Vent Filter (EU14)	0.75	0.75	-	-	-	-	-
Surge Bin #2 Vent Filter (EU16)	0.75	0.75	-	-	-	-	-
Hammermills (EU17, EU18, EU19, and EU20)	4.51	4.51	-	-	-	-	-
Ground Grain Handling Area (EU21, EU22, and EU23)	0.56	0.56	-	-	-	-	-
RTO Stacks (fermentation, distillation, dryers/cooling systems, and ethanol loadout)	29.8	29.8	65.7	56.9	67.5	56.8	13.8
DDGS reclaim operation (EU51 and EU520	0.38	0.38	-	-	-	-	-
DDGS conveyor and truck load spout #1 (EU53 and EU54)	0.38	0.38	-	-	-	-	-
DDGS conveyor and truck load spout #2 (EU55 and EU56)	0.38	0.38	-	-	-	-	-
DDGS conveyor and rail load spout	0.38	0.38	-	-	-	-	-

	Potential To Emit (tons/year)						
Process/Emission Unit	**PM**	**PM10**	**SO_2**	**VOC**	**CO**	**NO_x**	**HAPs**
Cooling Tower (Insignificant)	1.64	1.64	-	-	-	-	-
Diesel Fire Pump (EU66)	0.03	0.03	0.06	0.07	0.17	0.50	Negligible
Diesel Emergency Generator (EU65)	0.34	0.16	0.11	0.26	2.06	5.68	Negligible
Storage Tanks (Insignificant)	-	-	-	1.01	-	-	0.41
Wet Cake Storage*	-	-	-	See Note	-	-	See Note
Other Insignificant Activities	1.0	1.0	-	1.0	-	-	-
Total PTE of the Entire Source	52.5	61.4	66.8	68.0	98.8	95.3	17.3
Title V Thresholds	NA	100	100	100	100	100	25 for total HAPs; 10 for single HAP

Note: "-" pollutant not emitted by the facility.
* Emissions from DDGS production are the worst case scenario. Therefore, the PTE of wet cake storage is not included in the PTE for the entire source.

Federal Rule Applicability Determination

(a) The four (4) boilers, identified as boilers, EU67, EU68, EU69, and EU70, each have a maximum heat input capacity greater than 10 MMBtu/hr and less than 100 MMBtu/hr and will be constructed after the June 9, 1989 applicability date. Therefore, these boilers are subject to the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units (326 IAC 12, 40 CFR 60.40c-48c, Subpart Dc).

Nonapplicable portions of the NSPS will not be included in the permit. Since boilers EU67, EU68, EU69, and EU70 only burn natural gas, they are subject to the following portions of 40 CFR 60, Subpart Dc.

(1) 40 CFR 60.40c
(2) 40 CFR 60.41c
(3) 40 CFR 60.48c(a)
(4) 40 CFR 60.48c(g)
(5) 40 CFR 60.48c(i)
(6) 40 CFR 60.48c(j)

The provisions of 40 CFR 60 Subpart A – General Provisions, which are incorporated as 326 IAC 12, apply to EU67, EU68, EU69, and EU70 except when otherwise specified in 40 CFR 60, Subpart Dc.

(b) The New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units (326 IAC 12, 40 CFR 60.40c-48c, Subpart Dc) are not included for the thermal oxidizers identified as C16 and C17. The thermal oxidizers do not have a heat recovery steam generator system to produce steam.

(c) Tanks identified as TK01, TK02, TK03, and TK04, have capacities greater than 151 cubic meters (39,890 gallons) and the stored liquids have vapor pressures greater than 5.2 kPa and less than 76.6 kPa. Therefore, these tanks are subject to the New Source Performance Standards for Volatile Organic Liquid Storage Vessels for which

construction, reconstruction, or modification commenced after July 23, 1984 (326 IAC 12, 40 CFR 60.110b - 117b, Subpart Kb).

Nonapplicable portions of the NSPS will not be included in the permit. The Permittee has elected to install internal floating roofs with the fixed roof tanks TK01, TK02, TK03, and TK04. These tanks are subject to the following portions of 40 CFR 60, Subpart Kb.

(1) 40 CFR 60.110b
(2) 40 CFR 60.111b
(3) 40 CFR 60.112b(a)(1)
(4) 40 CFR 60.113b(a)
(5) 40 CFR 60.115b(a)
(6) 40 CFR 60.116b(a – e)
(7) 40 CFR 60.117b

The provisions of 40 CFR 60 Subpart A – General Provisions, which are incorporated as 326 IAC 12, apply to TK01, TK02, TK03, and TK04 except when otherwise specified in 40 CFR 60, Subpart Kb.

(d) Ethanol is one of the chemicals listed in 40 CFR 60.489. Therefore, this ethanol production plant is subject to the requirements of New Source Performance Standards for Volatile Organic Liquid Storage Vessels for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (326 IAC 12, 40 CFR 60.480 - 489, Subpart VV).

Nonapplicable portions of the NSPS will not be included in the permit. Pumps, compressors, pressure relief devices, sampling connection systems, and valves are subject to the following portions of 40 CFR 60, Subpart VV.

(1) 40 CFR 60.480
(2) 40 CFR 60.481
(3) 40 CFR 60.482-1
(4) 40 CFR 60.482-2
(5) 40 CFR 60.482-3
(6) 40 CFR 60.482-4
(7) 40 CFR 60.482-5
(8) 40 CFR 60.482-6
(9) 40 CFR 60.482-7
(10) 40 CFR 60.482-8
(11) 40 CFR 60.482-9
(12) 40 CFR 60.482-10
(13) 40 CFR 60.483-1
(14) 40 CFR 60.483-2
(15) 40 CFR 60.485
(16) 40 CFR 60.486
(17) 40 CFR 60.487

(e) The diesel fired stationary fire pump, identified as EU72, will commence construction after July 11, 2005 and was manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006. The emergency generator, identified as EU71, will commence construction after July 11, 2005 and was manufactured after April 1, 2006. Therefore, the fire pump (EU72) and the emergency generator (EU71), are subject to the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (326 IAC 12, 40 CFR 60.4200 - 4209, Subpart IIII).

Nonapplicable portions of the NSPS will not be included in the permit. The proposed fire pump (EU72) and emergency generator (EU71) are subject to the following portions of 40 CFR 60, Subpart IIII.

(1) 40 CFR 60.4200(a)(2)

(2) 40 CFR 60.4200(a)(3)
(3) 40 CFR 60.4200(b)
(4) 40 CFR 60.4205(a)
(5) 40 CFR 60.4205(c)
(6) 40 CFR 60.4206
(7) 40 CFR 60.4207(b)
(8) 40 CFR 60.4207(c)
(9) 40 CFR 60.4208
(10) 40 CFR 60.4209(a)
(11) 40 CFR 60.4211(a)
(12) 40 CFR 60.4211(b)
(13) 40 CFR 60.4211(e)
(14) 40 CFR 60.4212
(15) 40 CFR 60.4214(b)
(16) 40 CFR 60.4218
(17) 40 CFR 60.4219
(18) Tables 1, 3, 4, 5, 8

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

(f) Ethanol is one of the chemicals listed in 40 CFR 60.667. However, according to the EPA memo from Mr. George T. Czerniak dated December 6, 2002, creation of ethanol by fermentation process (biological synthesis) is excluded from the scope of NSPS, Subpart NNN. Therefore, the distillation unit at this new ethanol production plant is not subject to the requirements of New Source Performance Standards for Volatile Organic Liquid Storage Vessels VOC Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations (326 IAC 12, 40 CFR 60.660 - 667, Subpart NNN).

(g) This source does not have a grain elevator with a permanent storage capacity greater than 2.5 million bushels. Therefore, the requirements of the New Source Performance Standards for Grain Elevators (326 IAC 12, 40 CFR 60.300-304, Subpart DD) are not included in this permit.

(h) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 20, and 40 CFR Part 61 and 63) applicable to this source:

(1) The requirements 40 CFR 63, Subpart F, G, and H – National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry are not included in this permit for the ethanol production plant. To be subject to the requirements of these NESHAP, this source must consist of chemical manufacturing process units that meet all of the criteria in 40 CFR 63.100(b)(1), (b)(2) and (b)(3). The source does not produce synthetic organic chemicals as an intermediate or final product, as listed in Table 1 of 40 CFR 63, Subpart F or in 40 CFR 63.100(b)(1)(i) and (b)(1)(ii).

(2) The requirements of 40 CFR 63, Subpart I – National Emission Standards for Organic Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks are not included in this permit for the ethanol production plant because this source does not manufacture any of the materials listed in 40 CFR 63.190(b)(1) through (b)(6).

(3) This source will limit HAP emissions from the entire source to less than 10 tons/yr for a single HAP and less than 25 tons/yr for total HAPs. Therefore, the requirements of National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ) are not included in this permit.

(4) This source has accepted limits that make it a minor source of hazardous air pollutants. Therefore, the requirements for the NESHAP for Industrial Process Cooling Towers (40 CFR 63, Subpart Q) are not included in this permit.

(5) This source has accepted limits that make it a minor source of hazardous air pollutants. Therefore, the requirements of the NESHAP for Organic Liquids Distribution (non-gasoline) (40 CFR 63, Subpart EEEE) are not included in this permit.

(6) This source has accepted limits that make it a minor source of hazardous air pollutants. Therefore, the requirements of the NESHAP for Miscellaneous Organic Chemical Manufacturing (40 CFR 63, Subpart FFFF) are not included in this permit.

State Rule Applicability Determination

326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 2-3 (Emission Offset)

The source will be constructed in 2007. The primary source is not considered to be in one of the twenty-eight (28) source categories as defined in 326 IAC 2-2-1; however, the potential to emit PM, PM10, VOC, CO, and NOx from the entire source before control is greater than two hundred fifty (250) tons per year.

Effective July 2, 2007, U.S. EPA has revised the definition of a ‘‘major stationary source’’ under 40 CFR Parts 51 and 52 PSD and Nonattainment New Source Review, and the definition of a ‘‘major source’’ under 40 CFR parts 70 and 71 (State and Federal Operating Permits). U.S. EPA has reinterpreted the component term ‘‘chemical process plants’’ within the statutory definition of ‘‘major emitting facility’’ in section 169(1) of the CAA to exclude wet and dry corn milling facilities that produce ethanol for fuel, or produce ethanol through a natural fermentation process that involves the use of such things as corn, sugar beets, sugar cane or cellulosic biomass as a feedstock regardless of whether the ethanol is produced for human consumption, fuel, or for an industrial purpose. Therefore, ethanol plants are no longer required to count fugitive emissions for purposes of determining whether a source is a major source under the PSD, Emission Offset nonattainment NSR, or Title V programs unless there is an applicable New Source Performance Standard that was in effect on August 7, 1980 for the ethanol plant, or the ethanol plant has a “nested” source category. Although the primary source does not fall under one of the 28 listed source categories and fugitive emissions are not counted towards PSD applicability for the primary source; the fugitive emission exclusion is not extended to the boilers located at Indiana Biofuels, Inc. because they are considered a “nested” source category. According to U.S. EPA Region V guidance memo addressed to Indiana Department of Environmental Management (dated March 6, 2003), since the combined heat input capacity of the four (4) boilers located at Indiana Biofuels, Inc. is greater than 250 MMBtu/hr, the boilers fall under one of the 28 listed source categories and are considered “nested” within a non-listed source. Therefore, fugitive emissions from the boilers located at Indiana Biofuels, Inc. are counted for purposes of determining whether this source is a major source under the PSD, Emission Offset, nonattainment NSR, or Title V programs. In order to make the requirement of 326 IAC 2-2 (PSD) not applicable, the source shall comply with the following emission limitations:

The PM emissions from the grain receiving, handling, and loadout operations shall not exceed the emission limits listed in the table below:

Unit Description	Baghouse ID	PM Emission Limit (lbs/hr)
Grain Receiving (EU01, EU02, EU03, EU04, EU05, EU05, EU06, EU07, EU08, and EU09)	C01	1.29
Corn Storage Bin #1 Vent Filters (EU10 and EU11)	C02	0.34
Corn Storage Bin #2 Vent Filters (EU12 and EU13)	C03	0.34

Unit Description	Baghouse ID	PM Emission Limit (lbs/hr)
Surge Bin #1 Vent Filter (EU14)	C04	0.17
Surge Bin #2 Vent Filter (EU16)	C05	0.17
Hammermill #1 (EU17)	C06	0.26
Hammermill #2 (EU18)	C07	0.26
Hammermill #3 (EU19)	C08	0.26
Hammermill #4 (EU20)	C09	0.26
Ground Grain Handling Area (EU21, EU22, and EU23)	C10	0.13
DDGS reclaim operation (EU51 and EU52)	C12	0.09
DDGS conveyor and truck load spout #1 (EU53 and EU54)	C13	0.09
DDGS conveyor and truck load spout #2 (EU55 and EU56)	C14	0.09
DDGS conveyor and rail load spout (EU57 and EU58)	C15	0.09

This is equivalent to 16.7 tons/yr of PM emissions. The source will use baghouses to ensure compliance with the PM limits above. With baghouse control, the source is capable of complying with these limits.

Combined with the PM emissions from the boilers, the RTOs used to control distillation, DDGS drying and cooling, the ethanol loading racks, and other insignificant activities at this source, the PM emissions from the entire source are limited to less than two hundred fifty (250) tons/yr.

The source also accepted limits on the throughput and on the emission rates of PM10, VOC, CO, and NOx, which limit emissions of all regulated pollutants from the entire source to less than one hundred (100) tons/yr (see the discussion of 326 IAC 2-8-4 below). Therefore, the requirements of 326 IAC 2-2 and 326 IAC 2-3 are not applicable.

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

The source accepted limits on the HAP emissions from the entire source, which limits the emissions from the source to less ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for any combination of HAPs (see the discussion of 326 IAC 2-8-4 below). Therefore, the requirements of 326 IAC 2-4.1 are not applicable.

326 IAC 2-8-4 (FESOP)

The potential to emit PM10, VOC, CO, and NOx, before controls, for the entire source is greater than one (100) tons per year. In addition, the potential to emit HAP before control from this source is greater than ten (10) tons per year for a single HAP (Acetaldehyde, Formaldehyde, Methanol, and n-hexane) and greater than twenty-five (25) tons per year for total HAPs. Pursuant to 326 IAC 2-8-4 (FESOP), the source shall comply with the following:

(a) The PM10 emissions from the grain receiving, handling, and loadout operations shall not exceed the emission limits listed in the table below:

Unit Description	Baghouse ID	PM10 Emission Limit (lbs/hr)
Grain Receiving (EU01, EU02, EU03, EU04, EU05, EU05, EU06, EU07, EU08, and EU09)	C01	1.29
Corn Storage Bin #1 Vent Filters (EU10 and EU11)	C02	0.34
Corn Storage Bin #2 Vent Filters (EU12 and EU13)	C03	0.34
Surge Bin #1 Vent Filter (EU14)	C04	0.17
Surge Bin #2 Vent Filter (EU16)	C05	0.17

Unit Description	Baghouse ID	PM10 Emission Limit (lbs/hr)
Hammermill #1 (EU17)	C06	0.26
Hammermill #2 (EU18)	C07	0.26
Hammermill #3 (EU19)	C08	0.26
Hammermill #4 (EU20)	C09	0.26
Ground Grain Handling Area (EU21, EU22, and EU23)	C10	0.13
DDGS reclaim operation (EU51 and EU52)	C12	0.09
DDGS conveyor and truck load spout #1 (EU53 and EU54)	C13	0.09
DDGS conveyor and truck load spout #2 (EU55 and EU56)	C14	0.09
DDGS conveyor and rail load spout (EU57 and EU58)	C15	0.09

This is equivalent to 16.7 tons/yr of PM10 emissions. The use of baghouses ensures compliance with the PM10 limits above.

(b) The emissions from the thermal oxidizers (C16 and C17), which are used to control emissions from the fermentation scrubber (C11), the distillation process, the dryer and cooling systems, and ethanol loadout racks, shall not exceed the following:

(1) PM/PM10 emissions shall not exceed 3.40 lbs/hr from each stack S15 and S16. This is equivalent to 29.8 tons/yr of PM/PM10 emissions.

(2) VOC emissions shall not exceed 6.50 lbs/hr from each stack S15 and S16. This is equivalent to 56.9 tons/yr of VOC emissions.

(3) CO emissions shall not exceed 7.70 lbs/hr from each stack S15 and S16. This is equivalent to 67.5 tons/yr of CO emissions.

(4) SO_2 emissions shall not exceed 7.50 lbs/hr from each stack S15 and S16. This is equivalent to 65.7 tons/yr of SO_2 emissions.

(5) NOx emissions shall not exceed 6.50 lbs/hr from each stack S15 and S16. This is equivalent to 56.8 tons/yr of NOx emissions.

(6) Acetaldehyde emissions shall not exceed 1.05 lbs/hr from each stack S15 and S16. This is equivalent to 9.20 tons/yr of Acetaldehyde emissions.

(7) Total HAP emissions shall not exceed 1.58 lbs/hr from each stack S15 and S16. This is equivalent to 13.8 tons/yr of HAP emissions.

(c) The denatured ethanol loadout rate shall not exceed 115,500,000 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

(d) The ethanol loading racks shall utilize submerged loading methods.

(e) The railcars and trucks shall not use vapor balance services during ethanol loading.

(f) The Permittee shall comply with the following requirements for the boilers, identified as EU67, EU68, EU69, and EU70:

(1) The boilers shall only burn natural gas.

(2) The input of natural gas to the boilers shall be limited to 3,175 MMCF per twelve (12) consecutive month period, with compliance determined at the end of each month.

(3) NOx emissions shall not exceed 20.4 pounds per MMCF.

(4) CO emissions shall not exceed 18.4 pounds per MMCF.

(g) The operating hours for the diesel-fired stationary fire pump, identified as EU72, shall not exceed 200 hours per twelve (12) consecutive month period with compliance determined at the end of each month.

(h) The operating hours for the emergency generator, identified as EU71, shall not exceed 200 hours per twelve (12) consecutive month period with compliance determined at the end of each month.

Combined with the PM10, VOC, CO, NOx, and HAP emission units, the emissions from the entire source are limited to less than one hundred (100) tons/yr for PM10, VOC, CO and NOx, and less than ten (10) tons/yr for a single HAP and less than twenty-five (25) tons/yr total HAPs. Therefore, the requirements of 326 IAC 2-7 (Part 70 Program), 326 IAC 2-2 (PSD), and 326 IAC 2-3 (Emission Offset) are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is located in Shelby County, is not required to operate under a Part 70 permit, and emits less than 5 tons per year of lead. Therefore, pursuant to 326 IAC 2-6-1(b), the source is only subject to additional information requests as provided in 326 IAC 2-6-5.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity for sources 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.

326 IAC 6-4 (Fugitive Dust Emissions)

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

326 IAC 6-5 (Fugitive Particulate Emissions Limitations)

The potential fugitive particulate emissions, as defined in 326 IAC 6-5-2, from the source are greater than 25 tons/yr. Therefore, the requirements of 326 IAC 6-5 are applicable. Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on July 10, 2007. The plan is included as Attachment A of the permit.

State Rule Applicability - Grain Receiving and Handling Operations

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

Pursuant to 326 IAC 6-3-2, particulate emissions from each of the following operations shall not exceed the pound per hour limit listed in the table below:

Emission Unit	Max. Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
Grain Truck Dump Pit/Auger (EU01)	1680	84.5
Grain Truck Dump Pit/Auger (EU04)	1680	84.5
Grain Truck Dump Pit/Auger (EU07)	1680	84.5
Transfer Conveyor (EU10)	1680	84.5
Corn Storage Silo (EU11)	1680	84.5
Transfer Conveyor (EU12)	1680	84.5
Corn Storage Silo (EU13)	1680	84.5
Surge Bin #1 Vent Filter (EU14)	280	62.2
Surge Bin #2 Vent Filter (EU16)	280	62.2
Hammermill #1 (EU17)	62.9	46.7
Hammermill #2 (EU18)	62.9	46.7
Hammermill #3 (EU19)	62.9	46.7
Hammermill #4 (EU20)	62.9	46.7
DDGS reclaim operation (EU51 and EU52)	420	66.9
DDGS conveyor and truck load spout #1 (EU53 and EU54)	41.1	42.8
DDGS conveyor and truck load spout #2 (EU55 and EU56)	41.1	42.8
DDGS conveyor and rail load spout (EU57 and EU58)	41.1	42.8
DDGS reclaim operation (EU51 and EU52)	41.1	42.8

The pounds per hour limitations were calculated using the following equation:

Interpolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

Pursuant to 326 IAC 6-3-2(e)(3), when the process weight exceeds 200 tons per hour, the maximum allowable emission may exceed the emission limits shown in the table above, provided the concentration of particulate matter in the gas discharged to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

According to the emission calculations (see Appendix A), the potential to emit PM after control from the grain receiving and handling operations is less than the emission limits above. Therefore, these operations are capable of complying with 326 IAC 6-3-2. The use of the baghouses C01, C02, C03, C04, C05, C06, C07, C08, C09, C10, C12, C13, C14, and C15 is necessary to ensure compliance with the limits above.

State Rule Applicability - Boilers

326 IAC 6-2-4 (PM Emissions for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-4(a), indirect heating facilities constructed after September 12, 1983, shall be limited by the following equation:

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

Where Pt = PM emission rate limit (lbs/MMBtu)
Q = total source heat input capacity (MMBtu/hr)

The total source heat input capacity is 92.4 + 92.4 + 92.4 + 92.4 = 369.6 MMBtu/hr. Therefore, the PM emission limit for each of the boilers identified as EU67, EU68, EU69, and EU70 is calculated as follows:

$$Pt = \frac{1.09}{369.6^{0.26}} = 0.234 \text{ lbs/MMBtu.}$$

A PM emission limit of 0.234 lbs/MMBtu is equivalent to 21.6 lbs/hr (0.234 lbs/MMBtu x 92.4 MMBtu/hr = 21.6 lbs/hr) of PM emissions from each of the boilers identified as EU67, EU68, EU69, and EU70. According to the emission calculations in Appendix A, the total PM emissions from EU67, EU68, EU69, and EU70 are 0.69 lbs/hr. Therefore, the boilers are capable of complying with the PM requirements in 326 IAC 6-2-4.

326 IAC 12 (New Source Performance Standards)

The boilers EU67, EU68, EU69, and EU70 are subject to 326 IAC 12 (New Source Performance Standards). 326 IAC 12 incorporates by reference 40 CFR 60, Subpart Dc. The Permittee will comply with the provisions of 40 CFR 60, Subpart Dc as detailed in the Federal Rule Applicability Determination section above.

Subpart Dc was revised on June 13, 2007. However, pursuant to 326 IAC 1-1-3, the version of the rule referenced by 326 IAC 12 was the version in existence on February 27, 2006, which was recently amended on June 13, 2007. Because the June 13, 2007 amendents to the federal rule are not approved into 326 IAC 12, boilers EU67, EU68, EU69, and EU70 at this source are subject to both versions of the rule. All of the requirements of the 326 IAC 12 rule that are applicable to this source are the same as the requirements listed under the Federal Rule Applicability Determination section.

State Rule Applicability - Fermentation, Distillation, DDGS Dryers, and Ethanol Loadout Operations

326 IAC 8-1-6 (General Reduction Requirements for VOC Emissions)

(a) The fermentation process, distillation process, DDGS dryers, and ethanol loadout operation located at this source are subject to the requirements in 326 IAC 8-5-6. Therefore, these operations are not subject to the requirements of 326 IAC 8-1-6 (BACT).

(b) The DDGS coolers (EU60 and EU63) have potential VOC emissions less than twenty-five (25) tons per year. Therefore, the DDGS coolers are not subject to 326 IAC 8-1-6.

326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills)

The proposed ethanol production plant will be constructed after April 1, 2007, will use dry mill operations, and have combined potential VOC emissions from the fermentation process, distillation process, DDGS dryers, and ethanol loadout operation greater than 25 tons per year. Therefore, the fermentation process, distillation process, DDGS dryers, and ethanol loadout operation at this source are subject to the requirements in 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills) and shall comply with the following:

(a) Pursuant to 326 IAC 8-5-6(c), the Permittee has chosen to control the VOC emissions from the fermentation process with a wet scrubber and thermal oxidizers, and the distillation process, DDGS dryers, and ethanol loadout operations by thermal oxidation. Therefore, the following conditions apply:

(1) The VOC emissions from the fermentation process shall be controlled by wet scrubber C11 in combination with one of the thermal oxidizers, identified as C16 and C17.

(2) The overall efficiency for the combination of the wet scrubber C11 and one of the thermal oxidizers, identified as C16 and C17 (including the capture efficiency and absorption efficiency), shall be at least 98%, or the VOC outlet concentration shall not exceed 10 ppmv.

(3) The VOC emissions from the distillation process and ethanol loadout operations shall be controlled by one of the thermal oxidizers identified as C16 and C17.

(4) The VOC emissions from DDGS Dryer #1 (EU59) shall be controlled by the thermal oxidizer identified as C16.

(5) The VOC emissions from DDGS Dryer #2 (EU62) shall be controlled by the thermal oxidizer identified as C17.

(6) The overall VOC control efficiency for each thermal oxidizer system (including the capture efficiency and control efficiency) shall be at least 98%, or the VOC outlet concentration shall not exceed 10 ppmv.

(b) Pursuant to 326 IAC 8-5-6(d), the Permittee shall determine initial compliance with the control efficiency requirements within sixty (60) days after achieving maximum production levels but no later than one hundred and eighty (180) days after startup.

(c) Pursuant to 326 IAC 8-5-6(e), the Permittee shall ensure and verify initial and continuing compliance with the control efficiency requirements by doing the following:

(1) The Permittee shall meet the following requirements for wet scrubbers C11:

(A) The pressure drop across the scrubber must be within the normal range established during the latest stack test. The pressure drop of the scrubber must be monitored at least once per day when the associated emission unit is in operation to ensure that the pressure drop across the scrubber is within the normal range established during the latest stack test.

(B) The scrubber flow rate must be greater than the minimum flow rate for the scrubber during normal operation. The scrubber flow rate must be monitored at least once per day when the associated emission unit is in operation to ensure that the flow rate of the scrubber is greater than the minimum flow rate established during the latest stack test.

(C) Maintain daily records of pressure drop and flow rate for the scrubber during normal operation.

(2) The Permittee shall meet the following requirements for the thermal oxidizers, identified as C16 and C17:

(A) The three (3) hour average operating temperature of the oxidizer, as measured by a continuous temperature monitor, must be greater than or equal to the minimum operating temperature established during the most recent compliance demonstration.

(B) Maintain continuous temperature records for the thermal oxidizer and the three (3) hour average operating temperature used to demonstrate compliance during the most recent compliant stack test.

(C) The three (3) hour average duct pressure or fan amperage, as measured by a continuous parameter monitoring system, must be within the normal range established during the most recent compliance demonstration.

(D) Maintain daily records of the duct pressure or fan amperage for the thermal oxidizer.

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

Pursuant to 326 IAC 6-3-2, particulate emissions from each of the following operations shall not exceed the pound per hour limits listed in the table below:

Unit ID	Unit Description	Max. Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
EU59	DDGS Dryer	41.1	42.8
EU62	DDGS Dryer	41.1	42.8

The pounds per hour limitations were calculated using the following equation:

Interpolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

According to the emission calculations (see Appendix A), the potential to emit PM after control from each of the DDGS Dryers is less than the emission limit above. Therefore, the use of the thermal oxidizers are necessary to ensure compliance with the DDGS Dryer operation limits above.

State Rule Applicability – Diesel Fire Pump and Emergency Generator

326 IAC 9-1-2 (Carbon Monoxide Emission Requirements)
This source is not among the listed source categories in 326 IAC 9-1-2. Therefore, the diesel fire pump (EU72) and emergency generator (EU71) are not subject to the requirements of 326 IAC 9-1-2.

326 IAC 10-1 (Nitrogen Oxide Emission Requirements)
This source is not located in Clark or Floyd County. Therefore, the diesel fire pump (EU72) and emergency generator (EU71) are not subject to the requirements of 326 IAC 10-1.

State Rule Applicability – Cooling Tower

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(11), particulate emissions from the noncontact cooling tower systems are exempt from the requirements of 326 IAC 6-3.

State Rule Applicability – Storage Tanks

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)
The one (1) denaturant storage tank (TK03) has a maximum capacity greater than 39,000 gallons and will be used to store gasoline which has a vapor pressure greater than 1.52 psi. Therefore, this tank is subject to the requirements of 326 IAC 8-4-3. TK03 will be equipped with an internal floating roof.

(a) Pursuant to 326 IAC 8-4-3(b)(1)(B), the one (1) denaturant storage tank (TK03) shall be maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials.

(b) Pursuant to 326 IAC 8-4-3(b)(1)(C), all openings, except stub drains, are equipped with covers, lids, or seals such that:

(1) The cover, lid or seal in the closed potion at all times except when in actual use;

(2) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;

(3) Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

(c) Pursuant to 326 IAC 8-4-3(d), the Permittee shall maintain the following records for a period of two (2) years for the one (1) denaturant storage tank (TK03):

(1) The types of volatile petroleum liquid stored;

(2) The maximum true vapor pressure of the liquids as stored; and

(3) The results of the inspections performed on the storage vessel.

The above records shall be made available to the IDEM, OAQ upon written request. All other tanks located at the source will not be used to store petroleum. Therefore, these tanks are not subject to requirements of 326 IAC 8-4-3.

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

The source is not located in Clark, Floyd, Lake, or Porter County. Therefore, the requirements of 326 IAC 8-9-1 are not applicable to the tanks at this source.

Testing Requirements

In order to demonstrate compliance with the FESOP, PSD minor limits, and 40 CFR 60, Subpart Dc, the Permittee shall perform the following tests shown in the table below within 60 days after achieving the maximum capacity but not later than 180 days after initial startup of the ethanol production plant:

Emission Unit	Control Device	Pollutant	Frequency of Testing	Limit or Requirement (lb/hr)
Grain Receiving (EU01, EU02, EU03, EU04, EU05, EU05, EU06, EU07, EU08, and EU09)	C01	PM/PM10	Once every 5 years	1.29
Corn Storage Bin #1 Vent Filters (EU10 and EU11)	C02	PM/PM10	Once every 5 years	0.34
Corn Storage Bin #2 Vent Filters (EU12 and EU13)	C03	PM/PM10	Once every 5 years	0.34
Surge Bin #1 Vent Filter (EU14)	C04	PM/PM10	Once every 5 years	0.17
Surge Bin #2 Vent Filter (EU16)	C05	PM/PM10	Once every 5 years	0.17
Hammermill #1 (EU17)	C06	PM/PM10	Once every 5 years	0.26
Hammermill #2 (EU18)	C07	PM/PM10	Once every 5 years	0.26
Hammermill #3 (EU19)	C08	PM/PM10	Once every 5 years	0.26
Hammermill #4 (EU20)	C09	PM/PM10	Once every 5 years	0.26
Ground Grain Handling Area (EU21, EU22, and EU23)	C10	PM/PM10	Once every 5 years	0.13
DDGS reclaim operation (EU51 and EU52)	C12	PM/PM10	Once every 5 years	0.09
DDGS conveyor and truck load spout #1 (EU53 and EU54)	C13	PM/PM10	Once every 5 years	0.09
DDGS conveyor and truck load spout #2 (EU55 and EU56)	C14	PM/PM10	Once every 5 years	0.09

Emission Unit	Control Device	Pollutant	Frequency of Testing	Limit or Requirement (lb/hr)
DDGS conveyor and rail load spout (EU57 and EU58)	C15	PM/PM10	Once every 5 years	0.09
Thermal Oxidizers (fermentation process, distillation process, DDGS dryers, and ethanol loadout operations)	C16	PM/PM10	Once every 5 years	3.40
	C17			3.40
Thermal Oxidizers (fermentation process, distillation process, DDGS dryers, and ethanol loadout operations)	C16	VOC	Once every 5 years	6.50
	C17			6.50
Thermal Oxidizers (fermentation process, distillation process, DDGS dryers, and ethanol loadout operations)	C16	CO	Once every 5 years	7.70
	C17			7.70
Thermal Oxidizers (fermentation process, distillation process, DDGS dryers, and ethanol loadout operations)	C16	NOx	Once every 5 years	6.50
	C17			6.50
Thermal Oxidizers (fermentation process, distillation process, DDGS dryers, and ethanol loadout operations)	C16	Acetaldehyde	Once every 5 years	1.05
	C17			1.05
Boilers (EU67, EU68, EU69, EU70)	N/A	CO	Once every 5 years	18.4 lbs/MMCF
Boilers (EU67, EU68, EU69, EU70)	N/A	NOx	Once every 5 years	20.4 lbs/MMCF

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-8 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 2-8-4. 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.

The Compliance Determination Requirements applicable to this modification are as follows:

Control	Parameter	Frequency	Range	Excursions and Exceedances
Baghouses (C01, C02, C03, C04, C05, C06, C07, C08, C09, C10, C12, C13, C14, and C15)	Water Pressure Drop	Daily	1 to 6 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Scrubber (C11)	Pressure Drop	Daily	1 to 6 inches	Response Steps
	Flow Rate		35 gal/min	
	Visible Emissions		Normal-Abnormal	
Thermal Oxidizers (C16 and C17)	Visible Emissions	Daily	Normal-Abnormal	Response Steps
	Temperature		above 1,400°F	
	Duct Pressure or Fan Amperage		TBD	

(a) These monitoring conditions are necessary because the baghouses controlling the grain receiving, storage, and handling operations (C01, C02, C03, C04, C05, and C10), the milling operations (C06, C07, C08, and C09), and the DDGS storage and loadout operations (C12, C13, C14, and C15), must operate properly to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 2-8 (FESOP), and 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).

(b) These monitoring conditions are necessary because the wet scrubber (C11) must operate properly at all times the fermentation process is in operation to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 2-3 (Emission Offset), 326 IAC 2-8-4 (FESOP), 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills), and 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).

(c) These monitoring conditions are necessary because the thermal oxidizers (C16 and C17) must operate properly at all times the distillation process, drying and cooling systems, and ethanol loading systems are in operation to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 2-3 (Emission Offset), 326 IAC 2-8-4 (FESOP), 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills), and 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).

Conclusion and Recommendation

The construction and operation of this ethanol production plant shall be subject to the conditions of FESOP 145-24857-00067. The staff recommend to the Commissioner that this FESOP Permit be approved.

Appendix A: Emission Calculations
Natural Gas Combustion Only
MMBTU/HR<100
(EU67, EU68, EU69, and EU70)
(92.4 MMBtu/hr each)

Company Name: Indiana Biofuels, Inc
Address: Approximately 3,000 Feet East of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, IN 46176
FESOP: F145-24857-00067
Reviewer: ERG/JR
Date: June 15, 2007

Maximum Heat Input MMBtu/hr	Potential Througput MMCF/yr	Limited Throughput MMCF/yr
369.6	3302.4	3175

(92.4 MMBtu/hr each)

	Pollutant					
	PM*	PM10*	SO2*	NO_x**	VOC*	CO***
Emission Factor	1.9	7.6	0.6	0.02	5.5	0.018
Units	lb/MMCF	lb/MMCF	lb/MMCF	lb/MMBtu	lb/MMCF	lb/MMBtu
Potential Emission in tons/yr	3.14	12.5	0.99	32.4	9.08	29.1
Limited Potential Emission in tons/yr	3.02	12.1	0.95	32.4	8.73	29.1

* Emission factors from Fifth Edition AP-42, Section 1.4, "Natural Gas Combustion", 7/98.
**NOx and CO emission factors are based on manufacturer/vendor data.

Methodology
For PM, PM10, SO2, and VOC
Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Potential Emission in tons/yr = Potential Throughput (MMCF/yr) x Emission Factor (lb/MMCF) * 1 ton/2000lbs
Limited Potential Emission in tons/yr = Limited Throughput (MMCF/yr) x Emission Factor (lb/MMCF) * 1 ton/2000lbs

For NOx and CO
Potential Emission in tons/yr = Maximum Heat Input (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760 hr/yr x 1 ton/2000lbs
Limited Potential Emission in tons/yr = Limited Throughput (MMCF/yr) x 1020 MMBtu/MMCF x Emission Factor (lb/MMBtu) x 1 ton/2000lbs

See next page for HAPs emissions calculations.

Appendix A: Emission Calculations
Natural Gas Combustion Only
MMBTU/HR<100
HAPs Emissions
(EU67, EU68, EU69, and EU70)
(92.4 MMBtu/hr each)

Company Name: Indiana Biofuels, Inc
Address: Approximately 3,000 Feet East of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, IN 46176
FESOP: F145-24857-00067
Reviewer: ERG/JR
Date: June 15, 2007

Potential Throughput MMCF/yr	Limited Throughput MMCF/yr
3302.4	3175

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMCF	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	3.47E-03	1.98E-03	0.12	2.97	5.61E-03
Limited Potential Emission in tons/yr	3.33E-03	1.91E-03	0.12	2.86	5.40E-03

HAPs - Metals

	Lead	Cadmuim	Chromium	Manganese	Nickel
Emission Factor in lb/MMCF	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	8.26E-04	1.82E-03	2.31E-03	6.27E-04	3.47E-03
Limited Potential Emission in tons/yr	7.94E-04	1.75E-03	2.22E-03	6.03E-04	3.33E-03

Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)
The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Methodology
All Emission factors are based on normal firing.

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Potential Emission in tons/yr = Potential Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Limited Potential Emission in tons/yr = Limited Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emission Calculations
PM and PM10 Emissions
From the Grain Elevator Operations

Company Name: Indiana Biofuels, Inc
Address: Approximately 3,000 Feet East of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, IN 46176
FESOP: F145-24857-00067
Reviewer: ERG/JR
Date: June 15, 2007

Potential to Emit PM/PM10:

Baghouse ID	Process Description	Control Device	Outlet Grain Loading (gr/dscf)	Maximum Air Flow Rate (scfm)	PTE of PM/PM10 after Control (lbs/hr)	PTE of PM/PM10 after Control (tons/yr)	Control Efficiency (%)	PTE of PM/PM10 before Control (tons/yr)
C01	Grain Receiving (EU01, EU02, EU03, EU04, EU05, EU05, EU06, EU07, EU08, and EU09)	Baghouse	0.005	30,000	1.29	5.63	99%	563
C02	Corn Storage Bin #1 Vent Filters (EU10 and EU11)	Baghouse	0.01	4,000	0.34	1.50	99%	150
C03	Corn Storage Bin #2 Vent Filters (EU12 and EU13)	Baghouse	0.01	4,000	0.34	1.50	99%	150
C04	Surge Bin #1 Vent Filter (EU14)	Baghouse	0.01	2,000	0.17	0.75	99%	75
C05	Surge Bin #2 Vent Filter (EU16)	Baghouse	0.01	2,000	0.17	0.75	99%	75
C06	Hammermill #1 (EU17)	Baghouse	0.005	6,000	0.26	1.13	99%	113
C07	Hammermill #2 (EU18)	Baghouse	0.005	6,000	0.26	1.13	99%	113
C08	Hammermill #3 (EU19)	Baghouse	0.005	6,000	0.26	1.13	99%	113
C09	Hammermill #4 (EU20)	Baghouse	0.005	6,000	0.26	1.13	99%	113
C10	Ground Grain Handling Area (EU21, EU22, and EU23)	Baghouse	0.005	3,000	0.13	0.56	99%	56
Total						**15.2**		**1,520**

Assume all PM emissions equal PM10 emissions.

Methodology

PTE of PM/PM10 after Control (lbs/hr) = Outlet Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 mins/hr x 1/7000 lb/gr
PTE of PM/PM10 after Control (tons/yr) = Outlet Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 mins/hr x 1/7000 lb/gr x 8760 hr/yr x 1 ton/2000 lbs
PTE of PM/PM10 before Control (tons/yr) = PTE of PM/PM10 after Control (tons/yr) / (1-Control Efficiency)

Appendix A: Emission Calculations
PM and PM10 Emissions
From the DDGS Handling, Loadout, and Storage Operations

Company Name: Indiana Biofuels, Inc
Address: Approximately 3,000 Feet East of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, IN 46176
FESOP: F145-24857-00067
Reviewer: ERG/JR
Date: June 15, 2007

Potential to Emit PM/PM10 - Captured Emissions:

Baghouse ID	Process Description	Control Device	Outlet Grain Loading (gr/dscf)	Maximum Air Flow Rate (scfm)	PTE of PM/PM10 after Control (lbs/hr)	PTE of PM/PM10 after Control (tons/yr)	Control Efficiency (%)	PTE of PM/PM10 before Control (tons/yr)
C12	DDGS reclaim operation (EU51 and EU52)	Baghouse	0.005	2,000	0.09	0.38	99%	37.5
C13	DDGS conveyor and truck load spout #1 (EU53 and EU54)	Baghouse	0.005	2,000	0.09	0.38	99%	37.5
C14	DDGS conveyor and truck load spout #2 (EU55 and EU56)	Baghouse	0.005	2,000	0.09	0.38	99%	37.5
C15	DDGS conveyor and rail load spout	Baghouse	0.005	2,000	0.09	0.38	99%	37.5
Total						**1.50**		**150.2**

Assume all PM emissions equal PM10 emissions.

Methodology

PTE of PM/PM10 after Control (lbs/hr) = Outlet Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 mins/hr x 1/7000 lb/gr
PTE of PM/PM10 after Control (tons/yr) = Outlet Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 mins/hr x 1/7000 lb/gr x 8760 hr/yr x 1 ton/2000 lbs
PTE of PM/PM10 before Control (tons/yr) = PTE of PM/PM10 after Control (tons/yr) / (1-Control Efficiency)

Appendix A: Emission Calculations
VOC and HAP Emissions
From the Fermentation Process

The exhaust from the fermentation scrubber (C11) is routed to the RTOs (C16 and C17).

Company Name: Indiana Biofuels, Inc
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Date: June 15, 2007

Note: These calculations show the VOC and HAP emissions from the exhaust of scrubber C11; these emissions are routed to the RTO stacks and final VOC and HAP emission calculations are on page 9.

Potential to Emit (PTE) of VOC and HAP:

VOCs

Emission Unit	Emission Rate before Control (lbs/hr)	*Scrubber Control Efficiency (%)	Emission Rate after Control (lbs/hr)	PTE after Control (tons/yr)	PTE before Control (tons/yr)
Fermentation Scrubber (C11)	608	98%	12.2	**53.3**	2664.0

HAPs

Emission Unit	Pollutant	Emission Rate after Control (lbs/hr)**	PTE after Control (tons/yr)
Fermentation Scrubber (C11)	Acetaldehyde	1.180	5.17
	Acrolein	0.010	0.04
	Formaldehyde	0.001	4.38E-03
	Acetic Acid	0.007	0.03
	Furfural	0.003	0.01
Total HAPs		**1.20**	**5.26**

*The source says it will get 98% VOC control efficiency from the scrubber.
**The HAP emissions are based on emissions testing at ACE Ethanol (Sept. 14-16, 2004). These HAP emissions will be routed to the RTO stacks for futher destruction.

Methodology
PTE after Control (tons/yr) = Emission Rate after Control (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs
PTE before Control (tons/yr) = Emission Rate before Control (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs

Appendix A: Emission Calculations
Criteria Pollutant and Process HAP Emissions
From the Fermentation Scrubber (C11), Distillation Process, Two (2) 90 MMBtu/hr Natural Gas DDGS Dryers (EU59 and EU62) and Cooling (EU60 and EU63) Systems, Ethanol Loading Racks (EU65 and EU66), and Two (2) 18 MMBtu/hr RTOs (C16 and C17)

Company Name: Indiana Biofuels, Inc
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Date: June 15, 2007

Note: Emission Rates after Control are based on stack test data from a similar facility using stack test data from ACE Ethanol, September 2004 compliance testing.
The Permittee will perform stack testing to demonstrate compliance with the emission rates presented below.

Potential to Emit (PTE):

PM/PM10

Emission Unit	Emission Rate before Control (lbs/hr)	*Control Efficiency (%)	Emission Rate after Control (lbs/hr)	PTE after Control (tons/yr)	PTE before Control (tons/yr)
RTO C16 (Stack S16)	68	95%	3.40	**14.9**	**297.8**
RTO C17 (Stack S17)	68	95%	3.40	**14.9**	**297.8**
TOTAL				**29.8**	**595.7**

VOCs

Emission Unit	Emission Rate before Control (lbs/hr)	*Control Efficiency (%)	Emission Rate after Control (lbs/hr)	PTE after Control (tons/yr)	PTE before Control (tons/yr)
RTO C16 (Stack S16)	325.0	98%	6.50	**28.5**	**1423.5**
RTO C17 (Stack S17)	325.0	98%	6.50	**28.5**	**1423.5**
TOTAL				**56.9**	**2847.0**

CO

Emission Unit	Emission Rate before Control (lbs/hr)	Control Efficiency (%)	Emission Rate after Control (lbs/hr)	PTE after Control (tons/yr)	PTE before Control (tons/yr)
RTO C16 (Stack S16)	7.7	0%	7.7	**33.7**	**33.7**
RTO C17 (Stack S17)	7.7	0%	7.7	**33.7**	**33.7**
TOTAL				**67.5**	**67.5**

SO2

Emission Unit	Emission Rate before Control (lbs/hr)	Control Efficiency (%)	Emission Rate after Control (lbs/hr)	PTE after Control (tons/yr)	PTE before Control (tons/yr)
RTO C16 (Stack S16)	7.5	0%	7.5	**32.9**	**32.9**
RTO C17 (Stack S17)	7.5	0%	7.5	**32.9**	**32.9**
TOTAL				**65.7**	**65.7**

NOx

Emission Unit	Emission Rate before Control (lbs/hr)	Control Efficiency (%)	Emission Rate after Control (lbs/hr)	PTE after Control (tons/yr)	PTE before Control (tons/yr)
RTO C16 (Stack S16)	6.48	0%	6.48	**28.4**	**28.4**
RTO C17 (Stack S17)	6.48	0%	6.48	**28.4**	**28.4**
TOTAL				**56.8**	**56.8**

*Process HAPs***

Emission Unit	Pollutant	Emission Rate after Control (lbs/hr)	PTE after Control (tons/yr)
RTO C16 (Stack S16)	Acetaldehyde	1.050	4.60
	Acrolein	0.047	0.21
	Formaldehyde	0.070	0.31
	Methanol	0.166	0.73
RTO C17 (Stack S17)	Acetaldehyde	1.050	4.60
	Acrolein	0.047	0.21
	Formaldehyde	0.070	0.31
	Methanol	0.166	0.73
Total HAPs		**2.67**	**11.7**

* The PM control efficiency for the dryer/cooling system was not provided by the source; however, since the exhaust from the dryers is sent through multiclones prior to the thermal oxidizer, it is assumed that these systems will acheive 95% PM control. 326 IAC 8-5-6 requires 98% control efficiency for VOC. All other criteria pollutants are uncontrolled.
** The HAP emissions are based on stack test data at Ace Ethanol in Stanely, WI on September 14 -16, 2004. Emissions are based on Method 18 test data for the plant and scaled accordingly to include HAP emissions from the fermentation scrubber and the RTO/DDGS dryer fuel combustion.

Methodology
PTE after Control (tons/yr) = Emission Rate after Control (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs
PTE before Control (tons/yr) = Emission Rate before Control (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs

Appendix A: Emission Calculations
HAP Emissions from Natural Gas Combustion
From Two (2) 90 MMBtu/hr DDGS Dryers (EU59 and EU62) and Two (2) 18 MMBtu/hr RTOs (C16 and C17)

Company Name: Indiana Biofuels, Inc
Address: Approximately 3,000 Feet East of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, IN 46176
FESOP: F145-24857-00067
Reviewer: ERG/JR
Date: June 15, 2007

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
216	1855.1

	Pollutant						
	Hexane	Formaldehyde	Toluene	Benzene	Nickel	Other	**Total HAPs**
Emission Factor in lbs/MMCF	1.80E+00	7.50E-02	3.40E-03	2.10E-03	2.10E-03	*	
Potential to Emit in tons/yr	1.67	0.07	3.15E-03	1.95E-03	1.95E-03	3.40E-01	**2.09**

* The source provided emission rates for several other HAPs; the total is shown here.

Emission factors are from AP-42, Chapter 1.4, Table 1.4-3 (AP-42, 03/98).
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Methodology

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
PTE (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2000 lbs

Appendix A: Emission Calculations
VOC and HAP Emissions from Ethanol Loading Racks (EU59 and EU60)

Company Name: Indiana Biofuels, Inc
Address: Approximately 3,000 Feet East of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, IN 46176
FESOP: F145-24857-00067
Reviewer: ERG/JR
Date: June 15, 2007

Note: These VOC emissions are accounted for with the RTO stack emission calculations on page 6. The HAP associated with the unloading process for trucks is included below.

1. Emission Factors: AP-42

Denatured ethanol will be shipped by either truck or railcar. Railcars will be dedicated fleets, but the trucks may be used to carry gasoline prior to filling with ethanol. Railcars and trucks will be filled by submerged loading process. Both truck and railcar loadout racks will be controlled by RTOs C16 and C17 which both have a control efficiency of 98% for VOC and HAPs.

According to AP-42, Chapter 5.2 - Transportation and Marketing of Petroleum Liquids (01/95), the VOC emission factors for the truck and rail loading racks can be estimated from the following equation:

L = 12.46 x (SPM)/T

where:

L = loading loss (lbs/kgal)
S = a saturation factor (see AP-42, Table 5.2-1)
P = true vapor pressure of the liquid loaded (psia)
M = molecular weight of vapors
T = temperature of the bulk liquid loaded (degree R)

Railcars and Trucks

Previous Stored Liquid	S	P (psia)	M (lbs/mole lbs)	T (degree R)	L (lbs/kgal)
Gasoline (normal)	1.0	5.96	62	510	9.03
Gasoline (clean cargo)	0.5	5.96	62	510	4.51
Denatured Ethanol (normal)	0.6	0.77	46	525	0.50
Denatured Ethanol (clean cargo)	0.5	0.77	46	525	0.42

Therefore, the emission factor for loading denatured ethanol to the trucks which stored gasoline previously
= L (gasoline, normal) - L (gasoline, clean cargo) + L (denatured ethanol, clean cargo) = 4.93 (lbs/kgal)

2. Potential to Emit VOC Before Control:

Max. Loading Rate for Truck Loadout: 36 kgal/hr (for truck loading)

PTE of VOC before Control (tons/yr) = 36 kgal/hr x 4.93 lbs/kgal x 8760 hr/yr x 1 ton/2000 lbs = **778 tons/yr**

Max. Loading Rate Rail Loadout: 60 kgal/hr (for railcar loading)

PTE of VOC before Control (tons/yr) = 60 kgal/hr x 0.50 lbs/kgal x 8760 hr/yr x 1 ton/2000 lbs = **133 tons/yr**

3. Limited Potential to Emit (for Trucks and Railcars):

Annual Production Limit: 115,500 kgal/yr (total for railcar and truck loading)
RTO Control Efficiency: 98% (for both truck and railcar loading)

(1) Assume all denatured ethanol is loaded to trucks (controlled by RTOs C16 and C17):
PTE of VOC (tons/yr) = 4.93 lbs/kgal x 115,500 kgal/yr x (1-99%) x 1 ton/2000 lbs = **5.70 tons/yr**

(2) Assume all denatured ethanol is loaded to railcars (controlled by RTOs C16 and C17):
PTE of VOC (tons/yr) = 0.50 lbs/kgal x 115,500 kgal/yr x (1-99%)x 1 ton/2000 lbs = **0.58 tons/yr**

Worst case scenario is when loading denatured ethanol to trucks and the worst case VOC emissions = 5.70 tons/yr

4. Potential to Emit HAPs:

Note: These calculations show the HAP emissions from the exhaust of loading; these emissions are routed to the RTO stacksand final HAP emission calculations are on page 9.

HAP emissions are mainly from the unloading process for trucks, which may have been used to ship gasoline previously.

HAP	HAP Fraction*	PTE of HAP before Control (tons/yr)	Limited PTE of HAP after Control (tons/yr)
Benzene	2.45%	19.06	1.40E-01
Cyclohexane	0.50%	3.89	2.85E-02
Napthalene	0.50%	3.89	2.85E-02
Ethyl benzene	1.50%	11.67	8.55E-02
n-Hexane	1.50%	11.67	8.55E-02
Toluene	12.50%	97.25	7.12E-01
Xylene	12.50%	97.25	7.12E-01
Total		**244.7**	**1.79**

* Composition based on MSDS listed for unleaded gasoline.

Methodology

PTE of HAP before Control (tons/yr) = PTE of VOC before Control (tons/yr) x HAP %
Limited PTE of HAP after Control (tons/yr) = Limited PTE of VOC by Truck (tons/yr) x HAP %

Appendix A: Emission Calculations
PM/PM10 Emissions
From the the Cooling Tower (Insignificant Activity)

Company Name: **Indiana Biofuels, Inc**
Address: **Approximately 3,000 Feet East of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, IN 46176**
FESOP: **F145-24857-00067**
Reviewer: **ERG/JR**
Date: **June 15, 2007**

1. Process Description:

Type of Cooling Tower:	Induced Draft	
Circulation Flow Rate:	30,000	gal/min
Total Drift:	0.001%	of the circulating flow
Total Dissolved Solids:	2,500	ppm
Density:	8.345	lbs/gal

Note: The information above was provided by the cooling tower manufacturer.

2. Potential to Emit PM/PM10:

Assume all the dissolved solids become PM10 emissions and assume PM emissions are equal to PM10 emissions.

PTE of PM/PM10 (lbs/hr) = 30,000 gal/min x 60 min/hr x 0.001% x 8.345 lbs/gal x 2,500 ppm x 1/1,000,000 ppm = **0.38 lbs/hr**

PTE of PM/PM10 (tons/yr) = 0.38 lbs/hr x 8760 hr/yr x 1 ton/2000 lbs = **1.64 tons/yr**

Appendix A: Emission Calculations
Criteria Pollutants
From the Diesel Fire Pump (EU72)

Company Name: Indiana Biofuels, Inc
Address: Approximately 3,000 Feet East of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, IN 46176
FESOP: F145-24857-00067
Reviewer: ERG/JR
Date: June 15, 2007

Power Output (HP)	PTE Operating Hours hr/yr	Limited Operating Hours hr/yr
290	500	200

	Pollutant					
	PM*	PM10*	SO_2	NO_x	VOC***	CO
Emission Factor in lb/HP-hr**	8.82E-04	8.82E-04	2.05E-03	1.72E-02	2.47E-03	5.73E-03
Potential Emissions (tons/yr)	**0.06**	**0.06**	**0.15**	**1.25**	**0.18**	**0.42**
Limited Potential Emissions (tons/yr)	**0.03**	**0.03**	**0.06**	**0.50**	**0.07**	**0.17**

*Assume PM10 emissions are equal to PM emissions.
** PM/PM10, NOx and CO emission factors are from Table 4, 40 FR 60, Subpart IIII, 7/2006. SO2 and VOC emission factors are from AP-42, Chapter 3.3, Table 3.3-1, SCC #2-02-001-02 and 2-03-001-01 (AP-42 Supplement B, 10/96).
***Assume TOC(total organic compounds) emissions are equal to VOC emissions.

Methodology

Potential Emissions (tons/yr) = Power Output (HP) x Emission Factor (lb/HP-hr) x PTE Operating Hours (hr/yr) x 1 ton/2000 lbs
Limited Potential Emissions (tons/yr) = Power Output (HP) x Emission Factor (lb/HP-hr) x Limited Operating Hours (hr/yr) x 1 ton/2000 lbs

Appendix A: Emission Calculations
Diesel fuel oil fired combustion
>600 HP generator
Emergency Generator (EU71)

Company Name: **Indiana Biofuels, Inc**
Address: **Approximately 3,000 Feet East of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, IN 46176**
FESOP: **F145-24857-00067**
Reviewer: **ERG/JR**
Date: **June 15, 2007**

Power Output (HP)	PTE Operating Hours (hrs/yr)	Limited Operating Hours (hrs/yr)
3740	500	200

	Pollutant					
	PM	PM10**	SO2	NOx	VOC	CO
>600 HP Emission Factor in lb/hp-hr*	9.00E-04	5.73E-02	3.00E-04	1.52E-02	7.05E-04	5.50E-03
Potential Emissions (tons/yr)	0.84	0.39	0.28	14.21	0.66	5.14
Limited Potential Emissions (tons/yr)	0.34	0.16	0.11	5.68	0.26	2.06

* NOx emission factor is from Table 2, 40 FR 60, Subpart IIII, 7/2006. All other diesel combustion emission factors from AP-42, Section 3.4 (10/1996), Tables 3.4-1, 3.4-2, and 3.4-4.

** PM10 emission factor is lb/MMBtu and is from AP-42, Section 3.4 (10/1996), Table 3.4-2. Emissions based on 27.2 MMBtu/hr heat input.

Methodology

Potential Emissions (tons/yr) = Power Output (HP) x PTE Operating Hours (hrs/yr) x Emission Factor (lb/hp-hr) x 1 ton/2000 lb

Limited Potential Emissions (tons/yr) = Power Output (HP) x Limited Operating Hours (hrs/yr) x Emission Factor (lb/hp-hr) x 1 ton/2000 lb

Appendix A: Emission Calculations
PM Fugitive Emissions
(To Determine 326 IAC 6-5 Applicability)

Company Name: Indiana Biofuels, Inc
Address: Approximately 3,000 Feet East of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, IN 46176
FESOP: F145-24857-00067
Reviewer: ERG/JR
Date: June 15, 2007

Fugitive Emission Summary	PM	PM10
Grain Receiving Fugitives	103.8	34.0
DDGS Handling Fugitives	15.5	5.2
DDGS Storage Silos Fugitives	0.6	0.1
Road Fugitives	58.2	11.3
TOTAL	**178.1**	**50.7**

Grain and DDGS Handling - Fugitive Emissions

Emission Unit ID	Process Description	Annual Throughput (ton/yr)	PM Emission Factor (lbs/ton)	PM10 Emission Factor (lbs/ton)	Potential Release/Fugitive Fraction	PTE of PM after Control (tons/yr)	PTE of PM10 after Control (tons/yr)	PTE of PM before Control (tons/yr)	PTE of PM10 before Control (tons/yr)
FS02	Grain Receiving Fugitives	1,153,558	0.180	0.0590	10%	10.4	3.40	103.8	34.0
FS03	DDGS Handling Operations	360,036	0.0860	0.0290	10%	1.55	4.70	15.5	5.2
FS04	DDGS Storage Silos	360,036	0.0033	0.0008	10%	0.06	0.13	0.6	0.1
Total						12.0	8.2	119.9	39.4

Note: Emission factors are from AP-42, Chapter 9.9.1 - Grain Elevators, Section 9.9.1 (5/03).

Methodology

PTE of PM/PM10 after Control (tons/yr) = Annual Throughput (ton/yr) x PM Emission Factor (lbs/ton) x Potential Release/Fugitive Fraction x 1 ton/2000 lbs
PTE of PM/PM10 before Control (tons/yr) = Annual Throughput (ton/yr) x PM Emission Factor (lbs/ton) x 1 ton/2000 lbs

Grain and DDGS Handling - Road Emissions

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

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

where:

E =	emission factor (lb/vehicle mile traveled)	
sL =	road surface silt loading (g/m^2) =	0.6 (g/m^2) (AP-42, Table 13.2.1-3)
sL (Winter) =	sL (non-Winter) x 4 (g/m^2) =	2.4 (g/m^2) (AP-42, Table 13.2.1-3)
w =	mean vehicle weight (tons) =	29.0 tons
k =	empirical constant =	0.082 for PM and 0.016 for PM10
a =	empirical constant =	0.65
b =	empirical constant =	1.5
C =	emission factor for exhaust, brake and tire wear	0.00047 for PM and PM10
p =	number of days per year with 0.01 inches precip	120

PM Emission Factor (non-Winter) = $(0.082 \times (0.6/2)^{0.65} \times (29/3)^{1.5} - 0.00047) \times (1 - 120/1460)$ = **1.03** lbs/mile
PM10 Emission Factor (non-Winter) = $(0.016 \times (0.6/2)^{0.65} \times (29/3)^{1.5} - 0.00047) \times (1 - 120/1460)$ = **0.20** lbs/mile

PM Emission Factor (Winter) = $(0.082 \times (2.4/2)^{0.65} \times (29/3)^{1.5} - 0.00047) \times (1 - 120/1460)$ = **2.55** lbs/mile
PM10 Emission Factor (Winter) = $(0.016 \times (2.4/2)^{0.65} \times (29/3)^{1.5} - 0.00047) \times (1 - 120/1460)$ = **0.50** lbs/mile

PM Emission Factor (Average Annual) = ((PM Emission Factor (non-Winter) x 9) + (PM Emission Factor (Winter) x 3))/12
PM Emission Factor (Average Annual) = **1.41** lbs/mile
PM10 Emission Factor (Average Annual) = ((PM10 Emission Factor (non-Winter) x 9) + (PM10 Emission Factor (Winter) x 3))/12
PM10 Emission Factor (Average Annual) = **0.28** lbs/mile

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

Vehicle Type	*Ave Weight of Vehicles (tons)	*Trip Number (trips/yr)	* Round Trip Distance (mile/trip)	Vehicle Mile Traveled (VMT) (miles/yr)	Traffic Component (%)	Component Vehicle Weight (tons)	PTE of PM before Control (tons/yr)	PTE of PM10 before Control (tons/yr)
Grain Receiving	25.0	46,142	1.09	50,295	61.0%	15.24	35.50	6.92
DDGS/WDGS Haul Out	25.0	14,400	1.09	15,696	19.03%	4.76	11.08	2.16
Ethanol Haul Out	26.4	14,438	1.09	15,737	19.1%	5.04	11.11	2.16
Denaturant Delivery	22.4	688	1.09	750	0.9%	0.20	0.53	0.10
Total				**82,478**	**100%**	**25.2**	**58.2**	**11.3**

* This information is provided by the source.

Methodology

Vehicle Mile Traveled (miles/yr) = Trip Number (trips/yr) x Round-Trip Distance (mile/trip)
Traffic Component (%) = VMT / Total VMT
Component Vehicle Weight = Ave. Weight of Vehicles (ton) x Traffic Component (%)
PTE of PM/PM10 before Control (tons/yr) = VMT (miles/yr) x PM/PM10 Emission Factors x 1 ton/2000 lbs

Appendix A: Emission Calculations
Limited PTE Summary

Company Name: Indiana Biofuels, Inc
Address: Approximately 3,000 Feet East of Intersection County Road N200W and W. Boggstown Rd, Shelbyville, IN 46176
FESOP: F145-24857-00067
Reviewer: ERG/JR
Date: June 15, 2007

Potential To Emit before Control

Emission Units	PM	PM10	SO_2	NO_x	VOC	CO	Total HAPs
Boilers - Natural Gas	3.14	12.5	0.99	32.4	9.08	29.1	3.12
Grain Handling	1,520	1,520	-	-	-	-	-
RTO Stacks*							
Fermentation							
Distillation	596	596	65.7	56.8	2847.0	67.5	368.9
Dryers/Cooling Systems							
Ethanol Loadout							
DDGS Handling and Loadout	150.2	150.2	-	-	-	-	-
Cooling Tower	1.64	1.64	-	-	-	-	-
Diesel Fire Pump	0.06	0.06	0.15	1.25	0.18	0.42	Negligible
Diesel Emergency Generator	0.84	0.39	0.28	14.21	0.66	5.14	Negligible
Storage Tanks**	-	-	-	-	1.37	-	0.41
Wet Cake Storage***	-	-	-	-	See Note	-	See Note
Other Insignificant Activities	1.00	1.00	-	-	1.00	-	-
Total PTE	**2273.0**	**2282.0**	**67.1**	**104.6**	**2859.3**	**102.1**	**372.4**

Limited Potential To Emit after Control

Emission Units	PM	PM10	SO_2	NO_x	VOC	CO	Total HAPs
Boilers - Natural Gas	3.02	12.1	0.95	32.4	8.73	29.1	3.12
Grain Handling	15.2	15.2	-	-	-	-	-
RTO Stacks*							
Fermentation							
Distillation	29.8	29.8	65.7	56.8	56.9	67.5	13.8
Dryers/Cooling Systems							
Ethanol Loadout							
DDGS Handling and Loadout	1.50	1.50	-	-	-	-	-
Cooling Tower	1.64	1.64	-	-	-	-	-
Diesel Fire Pump	0.03	0.03	0.06	0.50	0.07	0.17	Negligible
Diesel Emergency Generator	0.34	0.16	0.11	5.68	0.26	2.06	Negligible
Storage Tanks**	-	-	-	-	1.01	-	0.41
Wet Cake Storage***	-	-	-	-	See Note	-	See Note
Other Insignificant Activities	1.00	1.00	-	-	1.00	-	-
Total PTE	**52.5**	**61.4**	**66.8**	**95.3**	**68.0**	**98.8**	**17.3**

*Emissions from fermentation, distillation, dryers/cooling systems, and ethanol loadout are accounted for with the RTO Stacks.
**Emissions from the storage tanks were calculated by the Permittee using EPA TANKS software (version 4.09d) and have been verified.
***This plant is capable of producing both DDGS and MDGS; however, the emissions from the DDGS production has been determined to be the worst case scenario. Therefore, the PTE of the wet cake storage is not included in the PTE for the entire source.