INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: October 29, 2012

RE: Abengoa Bioenergy of Indiana, Inc / 129-31150-00050

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

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

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

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

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

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

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

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

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

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

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

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

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

Enclosures
FNTVOP.dot12/3/07

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Part 70 Operating Permit
OFFICE OF AIR QUALITY

Abengoa Bioenergy of Indiana, LLC
8999 West Franklin Road
Mt. Vernon, Indiana 47620

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

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

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

Operation Permit No.: T129-31150-00050	
Issued by: Jenny Acker, Section Chief Permits Branch Office of Air Quality	Issuance Date: October 29, 2012 Expiration Date: October 29, 2017

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SECTION A SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary stationary ethanol production plant.

Source Address:	8999 West Franklin Road, Mt. Vernon, Indiana 47620
General Source Phone Number:	(812) 985-4032
SIC Code:	2869
County Location:	Posey
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD and Emission Offset Rules Greenhouse Gas (GHG) potential to emit (PTE) is equal to or more than one hundred thousand (100,000) tons of CO2 equivalent emissions (CO2e) per year Minor Source, Section 112 of the Clean Air Act Nested Source with fossil fuel fired boilers totaling more than two hundred fifty million (250,000,000) British thermal units per hour heat input, as 1 of 28 Source Categories, within a non-listed source

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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

(a) One (1) grain receiving area, approved in 2009 for construction, and consisting of the following:

(1) One (1) truck/rail receiving pit, identified as T-1101, with a rated capacity of 1680 tons of corn per hour and a maximum operating capacity of 1059 tons of corn per hour, controlled by baghouse F-1101, and exhausting through stack S-1101;

(2) One (1) truck receiving pit, identified as T-1102, with a rated capacity of 1120 tons of corn per hour and a maximum operating capacity of 398 tons of corn per hour, controlled by baghouse F-1102, and exhausting through stack S-1102;

(3) Two (2) grain transfer drag conveyors, identified as CV-1101 and CV-1102, with a rated capacity of 1680 tons of corn per hour and 1120 tons of corn per hour and a maximum operating capacity of 1059 tons of corn per hour and 398 tons of corn per hour, controlled by baghouses F-1101 and F-1102, and exhausting through stacks S-1101 and S-1102, respectively; and

(4) Two (2) grain storage silos, identified as T-2001 and T-2002, each with a maximum capacity of 150 tons of corn per hour, controlled by baghouses F-2003A, F-2003B, F-2004A, and F-2004B, and exhausting through stacks B-2003A, B-2003B, B-2004A, and B-2004B, respectively.

(b) One (1) corn scalper, identified as SC-1201, approved in 2009 for construction, with a maximum capacity of 150 tons of corn per hour, controlled by baghouse F-1200, and exhausting through stack B-1200.

(c) Four (4) hammer mill surge bins, identified as T-1201, T-1202, T-1203, T-1204, approved in 2009 for construction, each with a maximum capacity of 117.6 tons of grain per hour, controlled by baghouse F-1200, and exhausting through stack B-1200.

(d) Four (4) hammermills, identified as G-1205, G-1206, G-1207, and G-1208, approved in 2009 for construction, each with a rated capacity of 117.6 tons per hour of grain and a maximum operating capacity of 42 tons per hour of grain, controlled by baghouses F-1205, F-1206, F-1207, and F-1208, and exhausting through stacks S-1205, S-1206, S-1207, and S-1208, respectively.

(e) Two (2) pellet mills, identified as PM-2251 and PM-2254, approved in 2009 for construction, each with a maximum capacity of 30 tons per hour, controlled by cyclones F-2251 and F-2252, and exhausting through stacks B-2251 and B-2252, respectively.

(f) One (1) DDGS unloading and loading area, approved in 2009 for construction, and consisting of the following:

(1) One (1) DDGS rail to barge unloading operation, identified as EP-2252, with a maximum capacity of 400 tons per hour, controlled by baghouse S-2252, and exhausting through stack S-2252;

(2) One (1) DDGS barge loadout operation, identified as EP-2251, with a maximum capacity of 200 tons per hour, controlled by high efficiency dustless spout filter system DC-2251, and exhausting through stack DC-2251;

(3) One (1) DDGS truck loadout operation, identified as LS-2201, with a rated capacity of 200 tons per hour and a maximum operating capacity of 169 tons per hour, controlled by high efficiency dustless spout filter system LS-2201, and exhausting through stack F-2201; and

(4) Three (3) DDGS rail loadout operations, identified as LS-2202A, LS-2202B, and LS-2202C, with a rated capacity of 200 tons per hour, each and a maximum operating capacity of 169 tons of corn per hour, each, controlled by high efficiency dustless spout filter systems LS-2202A, LS-2202B, and LS-2202C, and exhausting through stacks F-2202A, F-2202B, and F-2202C, respectively.

(g) One (1) fermentation process, approved in 2009 for construction, with a maximum throughput rate of 12,000 gallons of anhydrous ethanol per hour, consisting of the following major equipment:

(1) One (1) prefermenter tank, identified as T-1400, using a wet scrubber (S-1400) and sodium bisulfite injection for VOC control, exhausting through stack S-1400.

(2) Six (6) main fermenters and one (1) beer well, identified as T-1401 through T-1407, using a wet scrubber (S-1401), and sodium bisulfite injection for VOC control, exhausting through stack S-1401.

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

(h) One (1) distillation process, approved in 2009 for construction, with a maximum throughput rate of 12,000 gallons of anhydrous ethanol per hour, using a wet scrubber,

(S-1504) and sodium bisulfite injection for VOC control, exhausting through stack S-1504, and consisting of the following major equipment:

(1) One (1) beer column identified as C-1510.

(2) One (1) stripping column identified as C-1520.

(3) One (1) rectifying column identified as C-1530.

(4) One (1) four-bottle molecular sieve unit, with associated heat exchangers and pumps.

(5) One (1) degas column identified as C-1500.

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

(i) Four (4) natural gas fired boilers, identified as BL-5001, BL-5002, BL-5003, and BL-5004, approved in 2009 for construction, with a maximum heat input rate of 92.4 MMBtu/hr, each, and exhausting through stacks S-5001, S-5002, S-5003, and S-5004, respectively.

Under NSPS, Subpart Dc, the boilers are considered affected facilities.

(j) Two (2) natural gas fired Swiss Combi “Eco-Dry” Dryer Systems, identified as D-1801A and D-1801B, approved in 2009 for construction, with a maximum heat input rate of 76.7MMBtu/hr and a design throughput rate of 20 tons per hour of DDGS each, with emissions exhausting through stacks ST-1802A and ST-1802B.

Note: The basis of the Swiss Combi Dryer System is an indirect heat drying process using a closed steam loop with thermal oxidation. The DDGS cooler is also integrated into the Eco-Dry system.

Under NSPS, Subpart Dc, the Swiss Combi Dryer Systems are considered affected facilities.

(k) One (1) ethanol and E85 loading rack for trucks and railcars, identified as L-2101D, approved in 2009 for construction, with rated throughput rate of 4,200 gallons per minute for trucks and railcars and a maximum operating capacity of 180,600 gallons per hour for trucks and railcars, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as C-2101, and exhausting through stack S-2101.

Under NSPS, Subpart VVa, equipment (as defined in 40 CFR 60.481a) within a process unit is an affected facility. Under NESHAP, Subpart BBBBBB this is a new affected unit.

(l) One (1) ethanol and E85 loading rack for barges, identified as EP-2501, approved in 2009 for construction, with a maximum throughput rate of 4,200 gallons per minute, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as S-2501, and exhausting through stack S-2501.

Under NSPS, Subpart VVa, equipment (as defined in 40 CFR 60.481a) within a process unit is an affected facility. Under NESHAP, Subpart BBBBBB this is a new affected unit.

A.3 Specifically Regulated Insignificant Activities
[326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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

(a) One (1) diesel fired stationary fire pump, identified as P-7075B, approved in 2009 for construction, with a maximum power output rate of 460 horsepower, and exhausting through stack P-7075B. [326 IAC 2-8-4]

Under NSPS, Subpart IIII and NESHAP, Subpart ZZZZ, the diesel fire pump is considered a new certified National Fire Protection Association (NFPA) fire pump.

(b) One (1) emergency diesel generator, identified as GN-7000, approved in 2009 for construction, with a maximum power output rate of 1,495 horsepower, and exhausting through stack GN-7000.

Under NSPS, Subpart IIII and NESHAP, Subpart ZZZZ, the emergency diesel generator is considered a new stationary compression ignition internal combustion engine.

(d) 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. [326 IAC 6-3-2]

(e) 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 storage tank, identified as T-2104, with a maximum capacity of 128,800 gallons equipped with an internal floating roof for VOC emissions control. [326 IAC 8-4-3] [40 CFR 60, Subpart Kb]

(2) Three (3) tanks for storage of denatured fuel ethanol and/or E-85, identified as T-2102, T-2103, and T-2105 each with a maximum capacity of 1,015,164 gallons, and each equipped with an internal floating roof for VOC emissions control. [40 CFR 60, Subpart Kb]

(3) Two (2) fixed-roof anhydrous ethanol storage tanks (shift tanks), identified as T-2110 and T-2111, each with a maximum capacity of 250,000 gallons and each equipped with an internal floating roof for VOC emissions control. [40 CFR 60, Subpart Kb]

Under NSPS, Subpart Kb, storage tanks T-2104, T-2102, T-2103, T-2105, T-2110, and T-2111 are considered volatile organic liquid storage vessels.

(4) One (1) corn oil separation process, approved in 2012 for construction, with a maximum throughput of 3,500,000 gallons per year, and consisting of the following:

(A) Two (2) tricanter centrifuges, uncontrolled, and exhausting inside.

(B) Four (4) storage tanks, storing corn oil, each with a maximum capacity of 9,500 gallons, and controlled by the distillation scrubber (S-1504).

(C) Seven (7) process tanks, uncontrolled, exhausting inside, and consisting of the following:

(i) One (1) 560 gallon tank;

(ii) One (1) 270 gallon tank;

(iii) One (1) 3,759 gallon tank;

(iv) One (1) 1,000 gallon tank;

(v) One (1) 450 gallon tank;

(vi) One (1) 400 gallon tank; and

(vii) One (1) 205 gallon tank.

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

(f) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment.

(1) One (1) gasoline tank, approved in 2009 for construction, with a maximum capacity of 500 gallons and an estimated monthly throughput of 140 gallons.

Under NESHAP, Subpart CCCCCC this is considered a new affected unit.

A.4 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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

(a) Noncontact cooling tower system with natural draft not regulated under a NESHAP.

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

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

(d) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(e) 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) fixed-roof anhydrous ethanol off-spec storage tank, identified as T-2101, with a maximum capacity of 39,500 gallons, equipped with an internal floating roof for VOC emissions control.

(2) Cook area process equipment, including: one (1) slurry tank (T-1301), one (1) mash cooker (V-1302), two (2) conversion tanks (T-1304 and T-1305), one (1) hot water tank (T-1303), one (1) saccharification flash vessel (V-1306), three (3) mash coolers (E-1311 through E-1313), and three (3) mash trim coolers (E-1515 through E-1517).

(3) Equipment for handling spent grain from the fermentation process, including: one (1) triple effect light evaporation system, one (1) final concentrator, one (1) whole stillage tank (T-1701), one (1) thin stillage tank (T-1600), one (1) intermediate stillage tank (T-1702), one (1) syrup tank (T-1650), and Four (4) stillage decanters (SP-1701 through SP-1704).

(4) One (1) corrosion inhibitor storage tank.

(5) One (1) sulfuric acid tank (T-1911).

(6) One (1) Clean-in place (CIP) system.

(7) Compressed air and dry air systems.

(f) A petroleum fuel other than gasoline dispensing facility, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less.

(1) One (1) diesel fuel tank, approved in 2009 for construction, with a maximum capacity of 500 gallons and an estimated monthly throughput of 1,100 gallons.

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

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

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, T129-31150-00050, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

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

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

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

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

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

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

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

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

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(34), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

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

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. 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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

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

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

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

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

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

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

Indiana Department of Environmental Management
Compliance and Enforcement 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

The Permittee shall implement the PMPs.

(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. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

B.11 Emergency Provisions [326 IAC 2-7-16]

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

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

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

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

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

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, or Southwest Regional Office 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 and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Southwest Regional Office phone: (812) 380-2305; fax: (812) 380-2304**.**

(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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

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

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

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

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

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

(a) All terms and conditions of permits established prior to T129-31150-00050 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

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

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

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

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

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

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

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

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

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

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

(a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:

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

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

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

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

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

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

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

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

B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

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

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

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

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

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

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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

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

C.6 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 attached plan as in Attachment A. The provisions of 326 IAC 6-5 are not federally enforceable.

C.7 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 by using ambient air quality modeling pursuant to 326 IAC 1-7-4. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

C.8 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
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 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 that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

C.9 Performance Testing [326 IAC 3-6]

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.11 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, 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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

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

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

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

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

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

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

no later than ninety (90) days after the date of issuance of this permit.

The ERP does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

(f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

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

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

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

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to 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 excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning 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 normal or usual manner of operation.

(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 record the reasonable response steps taken.

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

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

Pursuant to 326 IAC 2-6-3(b)(3), starting in 2006 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

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

The statement must be submitted to:

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

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following:
- (AA) All calibration and maintenance records.
- (BB) All original strip chart recordings for continuous monitoring instrumentation.
- (CC) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following:
- (AA) The date, place, as defined in this permit, and time of sampling or measurements.
- (BB) The dates analyses were performed.
- (CC) The company or entity that performed the analyses.
- (DD) The analytical techniques or methods used.
- (EE) The results of such analyses.
- (FF) The operating conditions as existing at the time of sampling or measurement.

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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that 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. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, 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) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

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

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

SECTION D.1 FACILITY OPERATION CONDITIONS – Grain and DDGS Handling Processes

Emission Unit Description:

(a) One (1) grain receiving area, approved in 2009 for construction, and consisting of the following:

(1) One (1) truck/rail receiving pit, identified as T-1101, with a rated capacity of 1680 tons of corn per hour and a maximum operating capacity of 1059 tons of corn per hour, controlled by baghouse F-1101, and exhausting through stack S-1101;

(2) One (1) truck receiving pit, identified as T-1102, with a rated capacity of 1120 tons of corn per hour and a maximum operating capacity of 398 tons of corn per hour, controlled by baghouse F-1102, and exhausting through stack S-1102;

(3) Two (2) grain transfer drag conveyors, identified as CV-1101 and CV-1102, with a rated capacity of 1680 tons of corn per hour and 1120 tons of corn per hour and a maximum operating capacity of 1059 tons of corn per hour and 398 tons of corn per hour, controlled by baghouses F-1101 and F-1102, and exhausting through stacks S-1101 and S-1102, respectively; and

(4) Two (2) grain storage silos, identified as T-2001 and T-2002, each with a maximum capacity of 150 tons of corn per hour, controlled by baghouses F-2003A, F-2003B, F-2004A, and F-2004B, and exhausting through stacks B-2003A, B-2003B, B-2004A, and B-2004B, respectively.

(b) One (1) corn scalper, identified as SC-1201, approved in 2009 for construction, with a maximum capacity of 150 tons of corn per hour, controlled by baghouse F-1200, and exhausting through stack B-1200.

(c) Four (4) hammer mill surge bins, identified as T-1201, T-1202, T-1203, T-1204, approved in 2009 for construction, each with a maximum capacity of 117.6 tons of grain per hour, controlled by baghouse F-1200, and exhausting through stack B-1200.

(d) Four (4) hammermills, identified as G-1205, G-1206, G-1207, and G-1208, approved in 2009 for construction, each with a rated capacity of 117.6 tons per hour of grain and a maximum operating capacity of 42 tons per hour of grain, controlled by baghouses F-1205, F-1206, F-1207, and F-1208, and exhausting through stacks S-1205, S-1206, S-1207, and S-1208, respectively.

(e) Two (2) pellet mills, identified as PM-2251 and PM-2254, approved in 2009 for construction, each with a maximum capacity of 30 tons per hour, controlled by cyclones F-2251 and F-2252, and exhausting through stacks B-2251 and B-2252, respectively.

(f) One (1) DDGS unloading and loading area, approved in 2009 for construction, and consisting of the following:

(1) One (1) DDGS rail to barge unloading operation, identified as EP-2252, with a maximum capacity of 400 tons per hour, controlled by baghouse S-2252, and exhausting through stack S-2252;

(2) One (1) DDGS barge loadout operation, identified as EP-2251, with a maximum capacity of 200 tons per hour, controlled by high efficiency dustless spout filter system DC-2251, and exhausting through stack DC-2251;

(3) One (1) DDGS truck loadout operation, identified as LS-2201, with a rated capacity of 200 tons per hour and a maximum operating capacity of 169 tons per hour, controlled by

high efficiency dustless spout filter system LS-2201, and exhausting through stack F-2201; and

(4) Three (3) DDGS rail loadout operations, identified as LS-2202A, LS-2202B, and LS-2202C, with a rated capacity of 200 tons per hour, each and a maximum operating capacity of 169 tons of corn per hour, each, controlled by high efficiency dustless spout filter systems LS-2202A, LS-2202B, and LS-2202C, and exhausting through stacks F-2202A, F-2202B, and F-2202C, respectively.

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

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

D.1.1 PM, PM10, and PM2.5 Emissions [326 IAC 2-2]

(a) The PM, PM10, and PM2.5 emissions from the grain receiving, handling, unloading, and loadout operations shall not exceed the emission limits listed in the table below:

Unit Description	Baghouse ID	PM Emission Limit (lbs/hr)	PM10 Emission Limit (lbs/hr)	PM2.5 Emission Limit (lbs/hr)
Truck/Rail Receiving Pit and Grain Conveyor (T-1101 and CV-1101)	F-1101	3.09	3.09	3.09
Truck Receiving Pit and Grain Conveyor (T-1102 and CV-1102)	F-1102	1.29	1.29	1.29
Grain Storage Silo (T-2001)	F-2003A	0.13	0.13	0.13
Grain Storage Silo (T-2001)	F-2003B	0.13	0.13	0.13
Grain Storage Silo (T-2002)	F-2004A	0.13	0.13	0.13
Grain Storage Silo (T-2002)	F-2004B	0.13	0.13	0.13
Corn Scalper and Hammer Mill Surge Bins (SC-1201 and T-1201 through T-1204)	F-1200	0.13	0.13	0.13
Hammermill (G-1205)	F-1205	0.77	0.77	0.77
Hammermill (G-1206)	F-1206	0.77	0.77	0.77
Hammermill (G-1207)	F-1207	0.77	0.77	0.77
Hammermill (G-1208)	F-1208	0.77	0.77	0.77
Pellet Mill (PM-2251)	F-2251	1.54	1.54	1.54
Pellet Mill (PM-2254)	F-2252	1.54	1.54	1.54
DDGS Rail to Barge Unloading (EP-2252)	S-2252	3.09	3.09	3.09
DDGS Barge Loadout (EP-2251)	DC-2251	1.93	1.93	1.93
DDGS Truck Loadout (LS-2201)	F-2201	0.18	0.18	0.18
DDGS Rail Loadout (LS-2202A)	LS-2202A	0.18	0.18	0.18
DDGS Rail Loadout (LS-2202B)	LS-2202B	0.18	0.18	0.18
DDGS Rail Loadout (LS-2202C)	LS-2202C	0.18	0.18	0.18

Compliance with these limits, in conjunction with the limits in Condition D.4.1 and the potential to emit PM, PM10, and PM2.5 from all other emission units at this source, shall limit the source-wide

total potential to emit of PM, PM10, and PM2.5 to less than 250 tons per 12 consecutive month period, each, and shall render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.2 Particulate Emission Limitations [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from each of 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)
T-1101	Truck/Rail Receiving Pit	1059	78.3
T-1102	Truck Receiving Pit	398	66.3
CV-1101	Grain Conveyor	1059	78.3
CV-1102	Grain Conveyor	398	66.3
T-2001	Grain Storage Silo	140	54.7
T-2002	Grain Storage Silo	140	54.7
SC-1201	Corn Scalper	150	55.4
T-1201 through T-1204	Hammer Mill Surge Bins	117.6, each	52.9, each
G-1205	Hammermill	42	43.0
G-1206	Hammermill	42	43.0
G-1207	Hammermill	42	43.0
G-1208	Hammermill	42	43.0
PM-2251	Pellet Mill*	30	40.0
PM-2254	Pellet Mill*	30	40.0
EP-2252	DDGS Rail to Barge Unloading	400	66.3
EP-2251	DDGS Barge Loadout	200	58.5
LS-2201	DDGS Truck Loadout	169	56.7
LS-2202A	DDGS Rail Loadout	169	56.7
LS-2202B	DDGS Rail Loadout	169	56.7
LS-2202C	DDGS Rail Loadout	169	56.7

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

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

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

or

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

(b) 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.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for these facilities and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.4 Particulate Control

(a) In order to comply with Conditions D.1.1 and D.1.2, each of the following emission units shall be controlled by the associated control device, as listed in the table below, when these units are in operation:

Unit Description	Control Device ID
Truck/Rail Receiving Pit and Grain Conveyor (T-1101 and CV-1101)	F-1101
Truck Receiving Pit and Grain Conveyor (T-1102 and CV-1102)	F-1102
Grain Storage Silo (T-2001)	F-2003A F-2003B
Grain Storage Silo (T-2002)	F-2004A F-2004B
Corn Scalper and Hammer Mill Surge Bins (SC-1201 and T-1201 through T-1204)	F-1200
Hammermill (G-1205)	F-1205
Hammermill (G-1206)	F-1206
Hammermill (G-1207)	F-1207
Hammermill (G-1208)	F-1208
Pellet Mill (PM-2251)	F-2251
Pellet Mill (PM-2254)	F-2252
DDGS Rail to Barge Unloading (EP-2252)	S-2252
DDGS Barge Loadout (EP-2251)	DC-2251
DDGS Truck Loadout (LS-2201)	LS-2201
DDGS Rail Loadout (LS-2202A)	LS-2202A
DDGS Rail Loadout (LS-2202B)	LS-2202B
DDGS Rail Loadout (LS-2202C)	LS-2202C

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

In order to demonstrate compliance with Conditions D.1.1 and D.1.2:

(a) The Permittee shall perform PM, PM10, and PM2.5 testing for baghouse S-2252 and high efficiency dustless spout filter system DC-2251 not later than 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 the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling

Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable PM.

(b) The Permittee shall perform PM**,** PM10, and PM2.5 testing for one of the baghouses F-1205, F-1206, F-1207 and F-1208, for one of the cyclones F-2251 and F-2252, and one of the high efficiency dustless spout filter systems LS-2201, LS-2202A, LS-2202B, and LS-2202C 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 the most recent valid compliance demonstration. The source will test the control device within each group for which the longest period of time has passed since the last valid compliance test. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable PM.

(c) The Permittee shall perform PM, PM2.5 and PM10 testing for baghouses F-1101 and **F-**1102 utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable PM.

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

D.1.6 Visible Emissions Notations

(a) Visible emission notations of the stack exhausts (stacks F-1101, F-1102, F-2003A, F-2003B, F-2004A, F-2004B, F-1200, F-1205, F-1206, F-1207, F-1208, F-2251, F-2252, S-2252, DC-2251, LS-2201, LS-2202A, LS-2202B, AND LS-2202C) shall be performed once per day during normal daylight operations. A trained employee or a trained contractor 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 or contractor is a person who has worked or trained 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 a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.1.7 Parametric Monitoring

(a) The Permittee shall monitor and record the pressure drop across the baghouses used in conjunction with the following:

Emissions Units	Control Devices	Normal Parameters	Frequency
Grain receiving and handling T-1101, T-1102, CV-1101, CV-1102, T-2001, and T-2002	Baghouses F-1101, F-1102, F-2003A, F-2003B, F-2004A, and F-2004B	Pressure drop 1 inch to 6 inches of water	Once per day minimum when in operation
Corn scalper and hammermill surge bins SC-1201 and T-1201 through T-1204	Baghouse F-1200	Pressure drop 1 inch to 6 inches of water	Once per day minimum when in operation
Hammermills G-1205 through G-1208	Baghouses F-1205, F-1206, F-1207, and F-1208	Pressure drop 1 inch to 11 inches of water	Once per day minimum when in operation
DDGS Loadout operation EP-2252, EP-2251, LS-2201, and LS-2202A through LS-2202C	Baghouse S-2252, Dustless spout filter systems DC-2251, LS-2201, LS-2202A, LS-2202B, and LS-2202C	Pressure drop 0.25 inch to 6 inches of water	Once per day minimum when in operation

When, for any one reading, the pressure drop across the baghouse is outside the normal range or a range, the Permittee shall take a reasonable response. The normal range for these units is listed in the table above unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from 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 or replaced at least once every six (6) months.

D.1.8 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 2-7-5(3)][326 IAC 2-7-19]

D.1.9 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.6, the Permittee shall maintain records of daily 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 the compliance status with Condition D.1.7, the Permittee shall maintain daily records of pressure drop for baghouses 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 pressure drop reading (e.g., the process did not operate that day).

(c) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.2 FACILITY OPERATION CONDITIONS

Emission Unit Description:

(g) One (1) fermentation process, approved in 2009 for construction, with a maximum throughput rate of 12,000 gallons of anhydrous ethanol per hour, consisting of the following major equipment:

(1) One (1) prefermenter tank, identified as T-1400, using a wet scrubber (S-1400) and sodium bisulfite injection for VOC control, exhausting through stack S-1400.

(2) Six (6) main fermenters and one (1) beer well, identified as T-1401 through T-1407, using a wet scrubber (S-1401), and sodium bisulfite injection for VOC control, exhausting through stack S-1401.

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

(h) One (1) distillation process, approved in 2009 for construction, with a maximum throughput rate of 12,000 gallons of anhydrous ethanol per hour, using a wet scrubber, (S-1504) and sodium bisulfite injection for VOC control, exhausting through stack S-1504, and consisting of the following major equipment:

(1) One (1) beer column identified as C-1510.

(2) One (1) stripping column identified as C-1520.

(3) One (1) rectifying column identified as C-1530.

(4) One (1) four-bottle molecular sieve unit, with associated heat exchangers and pumps.

(5) One (1) degas column identified as C-1500.

Under NSPS, Subpart VVa, equipment (as defined in 40 CFR 60.481a) 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.)

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

D.2.1 PSD and HAP Minor Limits [326 IAC 2-2] [326 IAC 2-4.1]

In order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) not applicable, the Permittee shall comply with the following emission limits for the scrubbers (S-1400, S-1401, and S-1504), which are used to control the emissions from the fermentation and distillation processes:

Process /Control Device ID	VOC Limit (lb/hr)	Acetaldehyde Limit (lb/hr)	Total HAP Limit (lb/hr)
Pre-Fermentation Scrubber (S-1400)	4.50	0.30	0.46
Fermentation Scrubber (S-1401)	20.00	0.45	1.04
Distillation Scrubber (S-1504)	2.50	0.20	0.27

Compliance with the above limits, in conjunction with the limit in Conditions D.4.1, D.5.1 and the potential to emit VOC and HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of VOC to less than 250 tons per 12 consecutive month period, any single HAP to less than ten (10) tons per 12 consecutive month period, and total HAPs to less than twenty-five (25) tons per 12 consecutive month period and shall render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) not applicable.

D.2.2 VOC Emissions [326 IAC 8-5-6]

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

(a) The VOC emissions from the fermentation and distillation processes shall be controlled by wet scrubbers, identified as S-1400, S-1401, and S-1504.

(b) The overall efficiency for each of the wet scrubbers S-1400, S-1401, and S-1504 (including the capture efficiency and absorption efficiency), shall be at least 98%, or the VOC outlet concentration shall not exceed 20 ppmv.

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for these facilities and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.2.4 VOC and HAP Control

(a) In order to comply with Conditions D.2.1 and D.2.2, the scrubbers (S-1400, S-1401, and S-1504) shall be in operation and control emissions from the fermentation and distillation processes at all times that these units are in operation.

(b) In order to comply with Condition D.2.1, the sodium bisulfite injection systems shall be in operation and injecting sodium bisulfite into scrubbers S-1400, S-1401, and S-1504 at all times that the fermentation and distillation processes are in operation.

D.2.5 Testing Requirements [326 IAC 2-1.1-11][326 IAC 8-5-6]

In order to demonstrate compliance with Conditions D.2.1 and D.2.2, the Permittee shall perform VOC and acetaldehyde testing (including emission rate, overall destruction efficiency and overall capture efficiency), on the wet scrubber stacks (S-1400, S-1401, and S-1504) utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition.

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

D.2.6 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust from the wet scrubber stacks (S-1400, S-1401, and S-1504) 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 a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.2.7 Scrubber Pressure Drop and Flow Rate

The Permittee shall monitor and record the pressure drop of the scrubbers as follows:

Emissions Units	Control Devices	Normal Parameters	Frequency
Pre-fermentation Process T-1400	Scrubber S-1400	Pressure drop 1 inch to 12 inches of water	Once per day minimum when in operation
Fermentation Process T-1401 through T-1407	Scrubber S-1401	Pressure drop 1 inch to 12 inches of water	Once per day minimum when in operation
Distillation Process	Scrubber S-1504	Pressure drop 1 inch to 6 inches of water	Once per day minimum when in operation

(a) When for any one reading, the pressure drop across a scrubber is outside the normal range the Permittee shall take a reasonable response. The normal range for these units is listed in the table above unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) The Permittee shall determine the minimum flow rate from the latest valid stack test that demonstrates compliance with limits in Conditions D.2.1 and D.2.2.

(c) On and after the date the stack test results are available, the Permittee shall maintain a flow rate at or above the minimum rate as observed during the latest compliant stack test. If the flow rate falls below the level observed during the latest compliant stack test, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

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

D.2.8 Scrubber 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 shall be considered a deviation from this permit. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition.

D.2.9 Sodium Bisulfite Injection System

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the fermentation scrubbers (S-1400 and S-1401) and distillation scrubber (S-1504) for measuring the sodium bisulfite injection rate. For the purpose of this condition, continuous means no less than once per fifteen (15) minutes. The output of this system shall be recorded as a one-hour average.

(b) The Permittee shall determine the one-hour average injection rates from the most recent valid stack test that demonstrates compliance with limits in Condition D.2.1.

(c) On and after the date the stack test results are available, the Permittee shall inject sodium bisulfite at or above the one-hour average injection rates as observed during the compliant stack test.

(d) When the one-hour injection rate falls below the above mentioned one-hour injection rate, the Permittee shall take a response step. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response steps required by this condition. A one-hour average that is outside the appropriate injection rate is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.2.10 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.6, the Permittee shall maintain records of once per day visible emission notations of the stacks S-1400, S-1401, and S-1504. 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 the compliance status with Condition D.2.7, the Permittee shall maintain daily records of pressure drop and flow rate for the scrubbers identified as S-1400, S-1401, and S-1504 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 pressure drop reading (e.g., the process did not operate that day).

(c) To document the compliance status with Condition D.2.9, the Permittee shall maintain records of the one-hour average sodium bisulfite injection rates of scrubbers S-1400, S-1401, and S-1504.

(d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.3 FACILITY OPERATION CONDITIONS – Boilers

Emission Unit Description:

(i) Four (4) natural gas fired boilers, identified as BL-5001, BL-5002, BL-5003, and BL-5004, approved in 2009 for construction, with a maximum heat input rate of 92.4 MMBtu/hr, each, and exhausting through stacks S-5001, S-5002, S-5003, and S-5004, respectively.

Under NSPS, Subpart Dc, the boilers are considered affected facilities.

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

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

D.3.1 PSD Minor Limits [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) 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 3174.2 MMCF per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) NOx emissions shall not exceed 51.0 pounds per MMCF.

(d) CO emissions shall not exceed 51.0 pounds per MMCF.

Compliance with the above limits, in conjunction with the limits in Condition D.4.1 and the potential to emit NOx and CO from all other emission units at this source, shall limit the source-wide total potential to emit of NOx and CO to less than 250 tons per 12 consecutive month period, each, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

Compliance with the above limits, shall limit the total potential to emit of NOx and CO from the boilers to less than 100 tons per 12 consecutive month period, each, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.3.2 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.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.3.4 Testing Requirements [326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.3.1, the Permittee shall perform NOx and CO testing for one of the boilers (BL-5001, BL-5002, BL-5003, and BL-5004) 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 the most recent valid compliance demonstration. The source will test the boiler for which the longest period of time has passed since the last valid compliance test. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

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

D.3.5 Record Keeping Requirements

(a) To document the compliance status with Condition D.3.1, the Permittee shall maintain daily records of the amount of natural gas combusted in the boilers.

(b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.3.6 Reporting Requirements

A quarterly summary of the information to document compliance status with Condition D.3.1 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.4 FACILITY OPERATION CONDITIONS – Dryer and Cooling System

Emission Unit Description:

(j) Two (2) natural gas fired Swiss Combi "Eco-Dry" Dryer Systems, identified as D-1801A and D-1801B, approved in 2009 for construction, with a maximum heat input rate of 76.7MMBtu/hr and a design throughput rate of 20 tons per hour of DDGS each, with emissions exhausting through stacks ST-1802A and ST-1802B.

Note: The basis of the Swiss Combi Dryer System is an indirect heat drying process using a closed steam loop with thermal oxidation. The DDGS cooler is also integrated into the Eco-Dry system.

Under NSPS, Subpart Dc, the Swiss Combi Dryer Systems are considered affected facilities.

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

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

D.4.1 PSD and HAP Minor Limits [326 IAC 2-2][326 IAC 2-4.1]

In order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable, the Permittee shall comply with the following emission limits for the Swiss Combi Dryer Systems (D1802A and D1802B) which are used to control the emissions from DDGS drying and cooling:

(a) The Swiss Combi Dryer Systems (D-1801A and D-1801B) shall only burn natural gas.

(b) The throughput of DDGS to the Swiss Combi Dryer Systems (D-1801A and D-1801B) shall be limited to 330,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) PM emissions shall not exceed 0.54 lb/ton for each stack (ST-1802A and ST-1802B).

(d) PM10 emissions shall not exceed 0.54 lb/ton for each stack (ST-1802A and ST-1802B).

(e) PM2.5 emissions shall not exceed 0.54 lb/ton for each stack (ST-1802A and ST-1802B).

(f) VOC emissions shall not exceed 0.41 lb/ton for each stack (ST-1802A and ST-1802B).

(g) CO emissions shall not exceed 0.95 lb/ton for each stack (ST-1802A and ST-1802B).

(h) SO2 emissions shall not exceed 0.0106 lb/MMBtu for each stack (ST-1802A and ST-1802B).

(i) NOx emissions shall not exceed 0.21 lb/MMBtu for each stack (ST-1802A and ST-1802B).

(j) Acetaldehyde emissions shall not exceed 0.65 lb/hr for each stack (ST-1802A and ST-1802B).

(k) Total HAP emissions shall not exceed 1.37 lbs/hr for each stack (ST-1802A and ST-1802B).

Compliance with the above limits, in conjunction with the limits in Conditions D.1.1, D.2.1, D.3.1, D.5.1 and the potential to emit PM, PM10, PM2.5, SO2, NOx, VOC, and HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of PM, PM10, PM2.5, SO2, NOx, and VOC to less than 250 tons per 12 consecutive month period, each, any single HAP to less than ten (10) tons per 12 consecutive month period, and total HAPs to less than twenty-five (25) tons per 12 consecutive month period and shall render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable.

D.4.2 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 Swiss Combi Dryer Systems (D-1801A and D-1801B) shall be controlled by thermal oxidation.

(b) The overall efficiency for the Swiss Combi Dryer Systems, identified as D-1801A and D-1801B, (including the capture efficiency and destruction efficiency) shall be at least 98%, or the VOC outlet concentration shall not exceed 10 ppmv.

D.4.3 Particulate Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from each of 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)
D-1801A	20	30.5
D-1801B	20	30.5

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

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

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for this facility and any control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.4.5 Particulate Control

In order to comply with Conditions D.4.1 and D.4.2, the Swiss Combi Dryer Systems (D-1801A and D-1801B) shall be in operation and control emissions from the DDGS dryers and coolers at all times that these units are in operation.

D.4.6 Testing Requirements [326 IAC 2-1.1-11][326 IAC 8-5-6]

In order to demonstrate compliance with Conditions D.4.1(c) and (f) through (k), D.4.2, and D.4.3, the Permittee shall perform PM, PM10, PM2.5, VOC (including emission rate, destruction efficiency, and capture efficiency), NOx, CO, and Acetaldehyde testing for each of the thermal oxidizer stacks (ST-1802A and ST-1802B) utilizing methods as approved by the Commissioner at

least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable PM.

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

D.4.7 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust from the thermal oxidizers (stacks ST-1802A and ST-1802B) shall be performed once per day during normal daylight operations. A trained employee or a trained contractor 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 or contractor is a person who has worked or trained 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 a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.4.8 Thermal Oxidation Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the Swiss Combi Dryer Systems (D-1801A and D-1801B) for measuring operating temperature. For the purpose of this condition, continuous means no less than once per fifteen (15) minutes. The output of this system shall be recorded as 3-hour average.

(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.4.1 and D.4.2.

(c) On and after the date the stack test results are available, the Permittee shall operate the thermal oxidizers at or above the hourly average temperature as observed during the compliant stack test. If the 3-hour average temperature falls below the level observed during the latest compliant stack test, the Permittee shall take a reasonable response.

(d) Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.4.9 Parametric Monitoring

(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.4.1 and D.4.2.

(b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizers are in operation. On and after the date the 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.

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

(d) When, for any one reading, the duct pressure or fan amperage is outside the appropriate range, the Permittee shall take a reasonable response. Section C - Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.4.10 Record Keeping Requirements

(a) To document the compliance status with Condition D.4.1, the Permittee shall maintain daily records of the amount of natural gas combusted in the Swiss Combi Dryer Systems (D-1801A and D-1801B).

(b) To document the compliance status with Condition D.4.7, the Permittee shall maintain records of once per day visible emission notations of stacks ST-1802A and ST-1802B. 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 the compliance status with Condition D.4.8, the Permittee shall maintain continuous temperature records for the thermal oxidizers and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test. The Permittee shall include in its daily record when a temperature reading is not taken and the reason for the lack of temperature reading (e.g., the process did not operate that day).

(d) To document the compliance status with Condition D.4.9, the Permittee shall maintain daily records of the duct pressure or fan amperage for the thermal oxidizers. The Permittee shall include in its daily record when a pressure or fan amperage reading is not taken and the reason for the lack of pressure or fan amperage reading (e.g., the process did not operate that day).

(e) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.4.11 Reporting Requirements

A quarterly summary of the information to document compliance status with Condition D.4.1 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.5 FACILITY OPERATION CONDITIONS – Ethanol Loading Racks

Emission Unit Description:

(k) One (1) ethanol and E85 loading rack for trucks and railcars, identified as L-2101D, approved in 2009 for construction, with a rated throughput rate of 4,200 gallons per minute for trucks and railcars and a maximum operating capacity of 180,600 gallons per hour for trucks and railcars, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as C-2101, and exhausting through stack S-2101.

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

(l) One (1) ethanol and E85 loading rack for barges, identified as EP-2501, approved in 2009 for construction, with a maximum throughput rate of 4,200 gallons per minute, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as S-2501, and exhausting through stack S-2501.

Under NSPS, Subpart VVa, equipment (as defined in 40 CFR 60.481a) 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.)

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

D.5.1 PSD Minor Limits [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following emission limits for the ethanol loading racks:

(a) The combined total denatured ethanol and E85 load-out rate shall not exceed 135,714,290 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The VOC emissions from S2101 shall not exceed 0.2946 lbs/kgal.

(c) The VOC emissions from S2501 shall not exceed 0.2946 lbs/kgal.

(d) The Permittee shall use a carbon adsorption/absorption hydrocarbon vapor recovery system identified as C-2101 to control the emissions from ethanol loading to trucks and railcars (L-2101D).

(e) The Permittee shall use a carbon adsorption/absorption hydrocarbon vapor recovery system identified as S-2501 to control the emissions from ethanol loading to barges (EP-2501).

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

(g) The railcars, trucks, and barges shall not use vapor balance services.

Compliance with the above limits, in conjunction with the limits in Conditions D.2.1, D.4.1 and the potential to emit VOC from all other emission units at this source, shall limit the source-wide total potential to emit of VOC to less than 250 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.5.2 VOC Emissions [Commissioner's Order and Variance]

Pursuant to Comissioner's Order #2009-OAQ-01 and Variance issued on April 29, 2009, in lieu of the requirement to control VOC emissions from the ethanol loading racks as specified in 326 IAC 8-5-6, the Permittee shall comply with the following:

(a) The Permittee shall use a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as C-2101 to control the emissions from ethanol loading to trucks and railcars (L-2101D).

(b) The Permittee shall use a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as S-2501 to control the emissions from ethanol loading to barges (EP-2501).

(c) The overall efficiency for each of the carbon adsorption/absorption hydrocarbon vapor recovery systems C-2101 and S-2501, (including the capture efficiency and adsorption/absorption efficiency) shall be at least 98%.

(d) The carbon adsorption/absorption hydrocarbon vapor recovery systems (C-2101 and S-2501) shall be in operation and control emissions from the ethanol loading systems (L-2101D and EP-2501) at all times when these units are in operation.

(e) 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.

(f) The Permittee shall monitor and record the carbon bed regeneration pressure for each carbon adsorption/absorption hydrocarbon vapor recovery system (C-2101 and S-2501) when the ethanol loading systems (L-2101D and EP-2501) are in operation at least once per day. The carbon bed regeneration pressure for each carbon adsorption/absorption hydrocarbon vapor recovery system (C-2101 and S-2501) shall achieve 3 inches Hg during the regeneration cycle of the carbon beds.

(g) The Permittee shall monitor and record the high adsorber bed temperature for each carbon adsorption/absorption hydrocarbon vapor recovery system (S2101 and S2501) when the ethanol loading systems (EP2101 and EP2501) are in operation at least once per day. The high adsorber bed temperature for each carbon adsorption/absorption hydrocarbon vapor recovery system (S2101 and S2501) shall be maintained at a temperature below 200°F.

(h) The Permittee shall maintain records of the carbon bed regeneration pressure and high adsorber bed temperature for each carbon adsorption/absorption hydrocarbon vapor recovery system (C-2101 and S-2501).

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for these facilities and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.5.4 VOC Control

In order to comply with Conditions D.5.1 and D.5.2, carbon adsorption/absorption vapor recovery systems (C-2101 and S-2501) shall be in operation and control emissions from the ethanol loading system at all times when these units are in operation.

D.5.5 Testing Requirements [326 IAC 2-1.1-11] [326 IAC 2-2]

In order to demonstrate compliance with Conditions D.5.1 and D.5.2, the Permittee shall perform VOC (including emission rate, adsorption/adsorption efficiency, and capture efficiency) testing for the carbon adsorption/absorption vapor recovery systems (C-2101 and S-2501), utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

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

D.5.6 Carbon Bed Regeneration Pressure

The Permittee shall monitor and record the carbon bed regeneration pressure for each carbon adsorption/absorption hydrocarbon vapor recovery system (C-2101 and S-2501) when the ethanol loading systems (L-2101D and EP-2501) are in operation at least once per day. The carbon bed regeneration pressure for each carbon adsorption/absorption hydrocarbon vapor recovery system (C-2101 and S-2501) shall achieve a minimum 3 inches Hg during the regeneration cycle of the carbon beds. When for any one reading, the carbon bed regeneration pressure is outside the above mentioned minimum rate or the minimum rate established during the latest stack test, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

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

D.5.7 High Adsorber Bed Temperature

The Permittee shall monitor and record the high adsorber bed temperature for each carbon adsorption/absorption hydrocarbon vapor recovery system (C-2101 and S-2501) when the ethanol loading systems (L-2101D and EP-2501) are in operation at least once per day. The high adsorber bed temperature for each carbon adsorption/absorption hydrocarbon vapor recovery system (C-2101 and S-2501) shall be maintained at a temperature below 200°F. When for any one reading, the high adsorber bed temperature is above the above mentioned maximum or a maximum temperature established during the latest stack test, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

The instruments used for determining the high adsorber bed temperature shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

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

D.5.8 Record Keeping Requirements

(a) To document the compliance status with Condition D.5.1(a), the Permittee shall maintain monthly records of the combined total amount of denatured ethanol and E85 loaded out from the ethanol loading racks.

(b) To document the compliance status with Condition D.5.6, the Permittee shall maintain records of the carbon bed regeneration pressure for each carbon adsorption/absorption hydrocarbon vapor recovery system (C-2101 and S-2501). The Permittee shall include in its daily record when a pressure reading is not taken and the reason for the lack of pressure reading (e.g., the process did not operate that day).

(c) To document the compliance status with Condition D.5.7, the Permittee shall maintain records of the high adsorber bed temperature for each carbon adsorption/absorption hydrocarbon vapor recovery system (C-2101 and S-2501). The Permittee shall include in its daily record when a temperature reading is not taken and the reason for the lack of temperature reading (e.g., the process did not operate that day).

(d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.5.9 Reporting Requirements

A quarterly summary of the information to document compliance status with Condition D.5.1(a) shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.6 FACILITY OPERATION CONDITIONS – Insignificant Activities

Emission unit Description:

Insignificant Activities

(d) 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. [326 IAC 6-3-2]

(e) 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 storage tank, identified as T-2104, with a maximum capacity of 128,800 gallons equipped with an internal floating roof for VOC emissions control. [326 IAC 8-4-3] [40 CFR 60, Subpart Kb]

Under NSPS, Subpart Kb, storage tank T-2104 is considered a volatile organic liquid storage vessel.

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

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

D.6.1 Volatile Organic Compounds (VOC) [326 IAC 8-4-3]

(a) Pursuant to 326 IAC 8-4-3(b)(1)(B), the denaturant storage tank (T-2104) 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 denaturant storage tank (T-2104):

(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.6.2 Particulate Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emissions from each grinding and machining operation 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, and pneumatic conveying shall be calculated using the following equation:

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

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

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

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

D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for these facilities and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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

D.6.3 Record Keeping Requirements

(a) To document the compliance status with Condition D.6.1, the Permittee shall maintain the following records for T-2104:

(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 vessels.

(b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

SECTION E.1 FACILITY OPERATION CONDITIONS - 40 CFR 60, Subpart VVa

Emission Unit Description:

(g) One (1) fermentation process, approved in 2009 for construction, with a maximum throughput rate of 12,000 gallons of anhydrous ethanol per hour, consisting of the following major equipment:

(1) One (1) prefermenter tank, identified as T-1400, using a wet scrubber (S-1400) and sodium bisulfite injection for VOC control, exhausting through stack S-1400.

(2) Six (6) main fermenters and one (1) beer well, identified as T-1401 through T-1407, using a wet scrubber (S-1401), and sodium bisulfite injection for VOC control, exhausting through stack S-1401.

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

(h) One (1) distillation process, approved in 2009 for construction, with a maximum throughput rate of 12,000 gallons of anhydrous ethanol per hour, using a wet scrubber, (S-1504) and sodium bisulfite injection for VOC control, exhausting through stack S1504, and consisting of the following major equipment:

(1) One (1) beer column identified as C-1510.

(2) One (1) stripping column identified as C-1520.

(3) One (1) rectifying column identified as C-1530.

(4) One (1) four-bottle molecular sieve unit, with associated heat exchangers and pumps.

(5) One (1) degas column identified as C-1500.

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

(k) One (1) ethanol and E85 loading rack for trucks and railcars, identified as L-2101D, approved in 2009 for construction, with a rated throughput rate of 4,200 gallons per minute for trucks and railcars and a maximum operating capacity of 180,600 gallons per hour for trucks and railcars, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as C-2101, and exhausting through stack S-2101.

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

(l) One (1) ethanol and E85 loading rack for barges, identified as EP-2501, approved in 2009 for construction, with a maximum throughput rate of 4,200 gallons per minute, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as S-2501, and exhausting through stack S-2501.

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

Insignificant Activities

(e) 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:

(4) One (1) corn oil separation process, approved in 2012 for construction, with a maximum throughput of 3,500,000 gallons per year, and consisting of the following:

(A) Two (2) tricanter centrifuges, uncontrolled, and exhausting inside.

(B) Four (4) storage tanks, storing corn oil, each with a maximum capacity of 9,500 gallons, and controlled by the distillation scrubber (S-1504).

(C) Seven (7) process tanks, uncontrolled, exhausting inside, and consisting of the following:

(i) One (1) 560 gallon tank;

(ii) One (1) 270 gallon tank;

(iii) One (1) 3,759 gallon tank;

(iv) One (1) 1,000 gallon tank;

(v) One (1) 450 gallon tank;

(vi) One (1) 400 gallon tank; and

(vii) One (1) 205 gallon tank.

Under NSPS, Subpart VVa, equipment (as defined in 40 CFR 60.481a) 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) 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, except as otherwise specified in 40 CFR 60, Subpart VVa.

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

Indiana Department of Environmental Management
Compliance and Enforcement 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 for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 [40 CFR Part 60, Subpart VVa] [326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart VVa (included as Attachment B of this permit), which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR Part 60, Subpart VVa:

(1) 40 CFR 60.480a
(2) 40 CFR 60.481a
(3) 40 CFR 60.482-1a
(4) 40 CFR 60.482-2a
(5) 40 CFR 60.482-3a
(6) 40 CFR 60.482-4a
(7) 40 CFR 60.482-5a
(8) 40 CFR 60.482-6a
(9) 40 CFR 60.482-7a
(10) 40 CFR 60.482-8a
(11) 40 CFR 60.482-9a
(12) 40 CFR 60.482-10a
(13) 40 CFR 60.482-11a
(14) 40 CFR 60.483-1a
(15) 40 CFR 60.483-2a
(16) 40 CFR 60.485a
(17) 40 CFR 60.486a
(18) 40 CFR 60.487a
(19) 40 CFR 60.488a
(20) 40 CFR 60.489a

SECTION E.2 FACILITY OPERATION CONDITIONS - 40 CFR 60, Subpart Dc

Emission Unit Description:

(i) Four (4) natural gas fired boilers, identified as BL-5001, BL-5002, BL-5003, and BL-5004, approved in 2009 for construction, with a maximum heat input rate of 92.4 MMBtu/hr, each, and exhausting through stacks S-5001, S-5002, S-5003, and S-5004, respectively.

Under NSPS, Subpart Dc, the boilers are considered affected facilities.

(j) Two (2) natural gas fired Swiss Combi "Eco-Dry" Dryer Systems, identified as D-1801A and D-1801B, approved in 2009 for construction, with a maximum heat input rate of 76.7MMBtu/hr and a design throughput rate of 20 tons per hour of DDGS each, with emissions exhausting through stacks ST-1802A and ST-1802B.

Note: The basis of the Swiss Combi Dryer System is an indirect heat drying process using a closed steam loop with thermal oxidation. The DDGS cooler is also integrated into the Eco-Dry system.

Under NSPS, Subpart Dc, the Swiss Combi Dryer Systems are considered affected facilities.

(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 boilers BL-5001, BL-5002, BL-5003, BL-5004, and the Swiss Combi Dryer Systems (D-1801A and D-1801B), 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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.2.2 New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Dc] [326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Dc (included as Attachment C of this permit), which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR Part 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)(2)
(5) 40 CFR 60.48c (i)
(4) 40 CFR 60.48c (j)

SECTION E.3 FACILITY OPERATION CONDITIONS - 40 CFR 60, Subpart Kb

Emission Unit Description: Insignificant Activities

(e) 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 storage tank, identified as T-2104, with a maximum capacity of 128,800 gallons equipped with an internal floating roof for VOC emissions control. [326 IAC 8-4-3] [40 CFR 60, Subpart Kb]

(2) Three (3) tanks for storage of denatured fuel ethanol and/or E-85, identified as T-2102, T-2103, and T-2105 each with a maximum capacity of 1,015,164 gallons, and each equipped with an internal floating roof for VOC emissions control. [40 CFR 60, Subpart Kb]

(4) Two (2) fixed-roof anhydrous ethanol storage tanks (shift tanks), identified as T-2110 and T-2111, each with a maximum capacity of 250,000 gallons, and each equipped with an internal floating roof for VOC emissions control. [40 CFR 60, Subpart Kb]

Under NSPS, Subpart Kb, storage tanks T-2104, T-2102, T-2103, T-2105, T-2110, and T-2111 are considered volatile organic liquid storage vessels.

(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 T-2102, T-2103, T-2104, T-2105, T-2110, and T-2111 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 and Enforcement 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) (included as Attachment D of this permit), which are incorporated by reference as 326 IAC 12, for tanks T-2102, T-2103, T-2104, T-2105, T-2110, and T-2111 as specified as follows:

(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

SECTION E.4 FACILITY OPERATION CONDITIONS - 40 CFR 60, Subpart IIII

Emission Unit Description: Insignificant Activities

(a) One (1) diesel fired stationary fire pump, identified as P-7075B, approved in 2009 for construction, with a maximum power output rate of 460 horsepower, and exhausting through stack P-7075B. [326 IAC 2-8-4]

Under NSPS, Subpart IIII and NESHAP, Subpart ZZZZ, the diesel fire pump is considered a new certified National Fire Protection Association (NFPA) fire pump.

(b) One (1) emergency diesel generator, identified as GN-7000, approved in 2009 for construction, with a maximum power output rate of 1,495 horsepower, and exhausting through stack GN-7000.

Under NSPS, Subpart IIII and NESHAP, Subpart ZZZZ, the emergency diesel generator is considered a new stationary compression ignition internal combustion engine.

(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 fire pump, identified as P-7075B and the diesel generator, identified as GN-7000, 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 and Enforcement 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 (included as Attachment E of this permit), which are incorporated by reference as 326 IAC 12, for the fire pump, identified as P-7075B and the diesel generator, identified as GN-7000, as specified as follows:

(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(c)
(5) 40 CFR 60.4206
(6) 40 CFR 60.4207(a)
(7) 40 CFR 60.4207(b)
(8) 40 CFR 60.4208

(9) 40 CFR 60.4209(a)
(10) 40 CFR 60.4211(a)
(11) 40 CFR 60.4211(c)
(12) 40 CFR 60.4211(e)
(13) 40 CFR 60.4212
(14) 40 CFR 60.4214(b)
(15) 40 CFR 60.4218
(16) 40 CFR 60.4219
(17) Tables 5 and 8

SECTION E.5 FACILITY OPERATION CONDITIONS - 40 CFR 63, Subpart ZZZZ

Emission Unit Description: Insignificant Activities

(a) One (1) diesel fired stationary fire pump, identified as P-7075B, approved in 2009 for construction, with a maximum power output rate of 460 horsepower, and exhausting through stack P-7075B. [326 IAC 2-8-4]

Under NSPS, Subpart IIII and NESHAP, Subpart ZZZZ, the diesel fire pump is considered a new certified National Fire Protection Association (NFPA) fire pump.

(b) One (1) emergency diesel generator, identified as GN-7000, approved in 2009 for construction, with a maximum power output rate of 1,495 horsepower, and exhausting through stack GN-7000.

Under NSPS, Subpart IIII and NESHAP, Subpart ZZZZ, the emergency diesel generator is considered a new stationary compression ignition internal combustion engine.

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

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

E.5.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.6580, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the reciprocating internal combustion engines as specified in 40 CFR Part 63, Subpart ZZZZ in accordance with the schedule in 40 CFR 63, Subpart ZZZZ.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

E.5.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20-82]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment F of this permit) which are incorporated by reference as 326 IAC 20-82 for the reciprocating internal combustion engines:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585 (a), (c), & (d)
(3) 40 CFR 63.6590 (a)(2)(iii), & (c)(1)
(4) 40 CFR 63.6670
(5) 40 CFR 63.6675
(6) Table 8

SECTION E.6 FACILITY OPERATION CONDITIONS - 40 CFR 63, Subpart BBBBBB

Emissions Unit Description:

(k) One (1) ethanol and E85 loading rack for trucks and railcars, identified as L-2101D, approved in 2009 for construction, with a rated throughput rate of 4,200 gallons per minute for trucks and railcars and a maximum operating capacity of 180,600 gallons per hour for trucks and railcars, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as C-2101, and exhausting through stack S-2101.

Under NSPS, Subpart VVa, equipment (as defined in 40 CFR 60.481a) within a process unit is an affected facility. Under NESHAP, Subpart BBBBBB this is a new affected unit.

(l) One (1) ethanol and E85 loading rack for barges, identified as EP-2501, approved in 2009 for construction, with a maximum throughput rate of 4,200 gallons per minute, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as S-2501, and exhausting through stack S-2501.

Under NSPS, Subpart VVa, equipment (as defined in 40 CFR 60.481a) within a process unit is an affected facility. Under NESHAP, Subpart BBBBBB this is a new affected unit.

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

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

E.6.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [40 CFR Part 63, Subpart A][326 IAC 20-1]

(a) Pursuant to 40 CFR 63.11098, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1for the loading racks as specified in 40 CFR Part 63, Subpart BBBBBB in accordance with the schedule in 40 CFR 63, Subpart BBBBBB.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

E.6.2 National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities [40 CFR Part 63, Subpart BBBBBB]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart BBBBBB (included as Attachment G) for the loading racks:

(1) 40 CFR 63.11080
(2) 40 CFR 63.11081 (a)(1), (b), (c), (e), (f), (g), (h), (i), (j)
(3) 40 CFR 63.11082 (a), (b)
(4) 40 CFR 63.11083 (a)(2)
(5) 40 CFR 63.11085
(6) 40 CFR 63.11087

(7) 40 CFR 63.11088
(8) 40 CFR 63.11089
(9) 40 CFR 63.11092
(10) 40 CFR 63.11093
(11) 40 CFR 63.11094
(12) 40 CFR 63.11095 (a), (b), (d)
(13) 40 CFR 63.11098
(14) 40 CFR 63.11099
(15) 40 CFR 63.11100
(16) Table 1
(17) Table 2
(18) Table 3

SECTION E.7 FACILITY OPERATION CONDITIONS - 40 CFR 63, Subpart CCCCCC

Emissions Unit Description: Insignificant Activities

(f) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment.

(1) One (1) gasoline tank, approved in 2009 for construction, with a maximum capacity of 500 gallons and an estimated monthly throughput of 140 gallons.

Under NESHAP, Subpart CCCCCC this is considered a new affected unit.

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

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

E.7.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [40 CFR Part 63, Subpart A][326 IAC 20-1]

(a) Pursuant to 40 CFR 63.11098, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1for the gasonline tank as specified in 40 CFR Part 63, Subpart CCCCCC in accordance with the schedule in 40 CFR 63, Subpart CCCCCC.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

E.7.2 National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities [40 CFR Part 63, Subpart CCCCCC]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart CCCCCC (included as Attachment H) for the gasoline tank:

(1) 40 CFR 63.11110
(2) 40 CFR 63.11111 (a), (b), (e), (f), (h), (i), (j), (k)
(3) 40 CFR 63.11112 (a), (b)
(4) 40 CFR 63.11113 (a)(2)
(5) 40 CFR 63.11115
(6) 40 CFR 63.11116
(7) 40 CFR 63.11125 (d)
(8) 40 CFR 63.11130
(9) 40 CFR 63.11131
(10) 40 CFR 63.11132
(11) Table 3

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Abengoa Bioenergy of Indiana, LLC
Source Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Permit No.: T129-31150-00050

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☐ Report (specify)

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Abengoa Bioenergy of Indiana, LLC
Source Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Permit No.: T129-31150-00050

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

☐ This is an emergency as defined in 326 IAC 2-7-1(12)

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

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

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

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

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Abengoa Bioenergy of Indiana, LLC
Source Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Permit No.: T129-31150-00050
Facility: BL-5001, BL-5002, BL-5003, and BL-5004
Parameter: Natural Gas Usage
Limit: 3174.2 MMCF per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER : _____ 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: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Abengoa Bioenergy of Indiana, LLC
Source Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Permit No.: T129-31150-00050
Facility: Swiss Combi Dryer Systems (D-1801A and D-1801B)
Parameter: DDGS Throughput
Limit: 330,000 tons of DDGS per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : _____ 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: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Abengoa Bioenergy of Indiana, LLC
Source Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Permit No.: T129-31150-00050
Facility: Ethanol Loading Racks
Parameter: Combined total denatured ethanol and E85 load-out
Limit: 135,714,290 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER : _____ 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: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Abengoa Bioenergy of Indiana, LLC
Source Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Permit No.: T129-31150-00050

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B – Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C - General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
☐ 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: _____

Indiana Department of Environmental Management
Office of Air Quality

Attachment A

Fugitive Dust Control Plan

Abengoa Bioenergy of Indiana
West Franklin, Posey County, Indiana

Abengoa Bioenergy of Indiana (ABI) is proposing to construct a new ethanol production facility approximately 1.0 mile northwest of the City of West Franklin in Posey County, Indiana. The plant will be located in the northeast quarter of Section 23, Township 7 South, Range 13 West. ABI's capacity will be 105 million gallons per year as denatured fuel-grade ethanol (95% ethanol with 5% denaturant). Some or all of the ethanol will be marketed as E85, which is a blend of up to 30% gasoline. As E85, the maximum facility production rate will be approximately 135.7 million gallons per year.

Pursuant to Title 326 of the Indiana Administrative Code (IAC), Article 6, Rule 5, this Fugitive Dust Control Plan addresses particulate matter (PM) fugitive emission sources and summarizes the proposed control measures for each source. This Fugitive Dust Control Plan is considered a supplemental document to the Part 70 Operating Permit.

Emission Sources

There will be three main potential sources of fugitive PM emissions associated with the operation of the ethanol plant. Emission sources will include the following:

- Grain Receiving;
- DDGS loading; and
- Truck traffic on paved haul roads and maintenance traffic on unpaved roads.

Grain Receiving

Unloading of grain will be conducted within a building, which is enclosed except for the entry/exit doors for the truck and/or railcar. PM emissions from the grain receiving and loading areas will be controlled by separate high efficiency fabric filters.

During grain receiving, most emissions will be captured by the baghouse dust collection systems. However, a small fraction of these emissions may not be captured by the baghouse. Any fugitive emissions from grain receiving will be minimized by using a "choked flow" operation, whereby the grain receiving rate is controlled. As the truck and/or railcar are emptied, the grain forms a small pile on the receiving grate. By controlling the grain receiving rate, the air displacement in the receiving pit is minimized, which helps to trap emissions within the pit where they can be captured by the baghouse dust collection systems.

Additional control is provided by locating the receiving and loading operations within a building, providing an enclosed space expect for the truck entry/exit doors. Most of the fugitive emissions which occur within the building are expected to be retained in the building rather than escape to the ambient air.

DDGS Loading

DDGS loading will be conducted within a covered, sheltered area. This area is not an enclosed building however, any PM emissions generated from DDGS loading will be controlled by separate high efficiency dustless spouts. These spouts are lowered within the truck or railcar and hover slightly above the loaded product. As the DDGS fills the compartment, the spout slowly rises up creating a vacuum on

the emissions. This type of system does not generate fugitive emissions since there is no gap from the drop location of DDGS into the compartment.

Truck Traffic

The truck traffic associated with grain receiving, DDGS loading, and liquid product (denaturant and denatured ethanol) will be on paved haul roads within the facility. Paved haul roads produce significant reduction in emissions compared to unpaved roads. Fugitive emissions from paved roads will be further controlled by limiting maximum vehicle speeds within the facility to 10 miles per hour. Lower vehicle speeds minimize the turbulence generated by the passing traffic and reduce the reentrainment of silt particles that may be on the road surface. Roadways will also be periodically cleaned using a mechanical road sweeper and any spills will be cleaned up as soon as possible.

There will also be minor traffic associated with maintenance activities (expected once per week) for the rail spur, barge loadout, and well areas. These maintenance roads are unpaved and only used for weekly checks and maintenance. Any fugitive emissions generated from the unpaved roads will be minimal since they will be driven on once a week at a 10 mile per hour or less speed limit.

Implementation Schedule

This Fugitive Dust Control Plan will be implemented once construction of the facility is complete and operations commence. The plan will be kept onsite and updated as necessary to minimize fugitive PM emissions from ABI's plant operations.

Indiana Department of Environmental Management
Office of Air Quality

Attachment B

Subpart VVa—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

Source: 72 FR 64883, Nov. 16, 2007, unless otherwise noted.

§ 60.480a 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 §60.481a) within a process unit is an affected facility.

(b) Any affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after November 7, 2006, 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 §60.486a(i).

(2) Any affected facility that has the design capacity to produce less than 1,000 Mg/yr (1,102 ton/yr) of a chemical listed in §60.489 is exempt from §§60.482–1a through 60.482–11a.

(3) If an affected facility produces heavy liquid chemicals only from heavy liquid feed or raw materials, then it is exempt from §§60.482–1a through 60.482–11a.

(4) Any affected facility that produces beverage alcohol is exempt from §§60.482–1a through 60.482–11a.

(5) Any affected facility that has no equipment in volatile organic compounds (VOC) service is exempt from §§60.482–1a through 60.482–11a.

(e) *Alternative means of compliance* —(1) *Option to comply with part 65.* (i) Owners or operators may choose to comply with the provisions of 40 CFR part 65, subpart F, to satisfy the requirements of §§60.482–1a through 60.487a for an affected facility. When choosing to comply with 40 CFR part 65, subpart F, the requirements of §§60.485a(d), (e), and (f), and 60.486a(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.

(ii) *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)(1)(ii) 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.

(2) *Part 63, subpart H.* (i) Owners or operators may choose to comply with the provisions of 40 CFR part 63, subpart H, to satisfy the requirements of §§60.482–1a through 60.487a for an affected facility. When choosing to comply with 40 CFR part 63, subpart H, the requirements of §60.485a(d), (e), and (f), and §60.486a(i) and (j) still apply.

(ii) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 63, subpart H 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)(ii) do not apply to owners or operators of equipment subject to this subpart complying with 40 CFR part 63, subpart H, except that provisions required to be met prior to implementing 40 CFR part 63 still apply. Owners and operators who choose to comply with 40 CFR part 63, subpart H, must comply with 40 CFR part 63, subpart A.

(f) *Stay of standards.* (1) Owners or operators that start a new, reconstructed, or modified affected source prior to November 16, 2007 are not required to comply with the requirements in this paragraph until EPA takes final action to require compliance and publishes a document in the Federal Register .

(i) The definition of “capital expenditure” in §60.481a of this subpart. While the definition of “capital expenditure” is stayed, owners or operators should use the definition found in §60.481 of subpart VV of this part.

(ii) [Reserved]

(2) Owners or operators are not required to comply with the requirements in this paragraph until EPA takes final action to require compliance and publishes a document in the Federal Register .

(i) The definition of “process unit” in §60.481a of this subpart. While the definition of “process unit” is stayed, owners or operators should use the following definition:

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.

(ii) The method of allocation of shared storage vessels in §60.482–1a(g) of this subpart.

(iii) The standards for connectors in gas/vapor service and in light liquid service in §60.482–11a of this subpart.

[72 FR 64883, Nov. 16, 2007, as amended at 73 FR 31375, June 2, 2008]

§ 60.481a Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act (CAA) 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 2006 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 Value for B

Subpart applicable to facility	Value of B to be used in equation
VVa	12.5
GGGa	7.0

Closed-loop system means an enclosed system that returns process fluid to the process.

Closed-purge system means a system or combination of systems and portable containers to capture purged liquids. Containers for purged liquids must be covered or closed when not being filled or emptied.

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, or other joined fittings used to connect two pipe lines or a pipe line and a piece of process equipment or that close an opening in a pipe that could be connected to another pipe. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this regulation.

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 action for the purpose of stopping or reducing leakage of organic material to the 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 judgment and standards such as ASME B31.3, Process Piping (available from the American Society of Mechanical Engineers, P.O. Box 2300, Fairfield, NJ 07007–2300).

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 §60.485a(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 §60.485a(d) specify how to determine that a piece of equipment is not in VOC service.)

Initial calibration value means the concentration measured during the initial calibration at the beginning of each day required in §60.485a(b)(1), or the most recent calibration if the instrument is recalibrated during the day (i.e., the calibration is adjusted) after a calibration drift assessment.

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 the components assembled and connected by pipes or ducts to process raw materials and to produce, as intermediate or final products, one or more of the chemicals listed in §60.489. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product. For the purpose of this subpart, process unit includes any feed, intermediate and final product storage vessels (except as specified in §60.482–1a(g)), product transfer racks, and connected ducts and piping. A process unit includes all equipment as defined in this subpart.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be accomplished. The following are not considered process unit shutdowns:

(1) 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.

(2) An unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown.

(3) The use of spare equipment and technically feasible bypassing of equipment without stopping production.

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 defined in the applicable sections of this subpart and, except for leaks identified in accordance with §§60.482–2a(b)(2)(ii) and (d)(6)(ii) and (d)(6)(iii), 60.482–3a(f), and 60.482–10a(f)(1)(ii), is re-monitored as specified in §60.485a(b) to verify that emissions from the equipment are below the applicable leak definition.

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.

Storage vessel means a tank or other vessel that is used to store organic liquids that are used in the process as raw material feedstocks, produced as intermediates or final products, or generated as wastes. Storage vessel does not include vessels permanently attached to motor vehicles, such as trucks, railcars, barges or ships.

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.

Transfer rack means the collection of loading arms and loading hoses, at a single loading rack, that are used to fill tank trucks and/or railcars with organic liquids.

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

Effective Date Note: At 73 FR 31376, June 2, 2008, in §60.481a, the definitions of “capital expenditure” and “process unit” were stayed until further notice.

§ 60.482-1a Standards: General.

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

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

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

(2) If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of §§60.482–2a, 60.482–3a, 60.482–5a, 60.482–6a, 60.482–7a, 60.482–8a, or 60.482–10a, 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 §§60.482–2a through 60.482–10a if it is identified as required in §60.486a(e)(5).

(e) Equipment that an owner or operator designates as being in VOC service less than 300 hr/yr is excluded from the requirements of §§60.482–2a through 60.482–11a if it is identified as required in §60.486a(e)(6) and it meets any of the conditions specified in paragraphs (e)(1) through (3) of this section.

(1) The equipment is in VOC service only during startup and shutdown, excluding startup and shutdown between batches of the same campaign for a batch process.

(2) The equipment is in VOC service only during process malfunctions or other emergencies.

(3) The equipment is backup equipment that is in VOC service only when the primary equipment is out of service.

(f)(1) If a dedicated batch process unit operates less than 365 days during a year, an owner or operator may monitor to detect leaks from pumps, valves, and open-ended valves or lines at the frequency specified in the following table instead of monitoring as specified in §§60.482–2a, 60.482–7a, and 60.483.2a:

	Equivalent monitoring frequency time in use		
Operating time (percent of hours during year)	**Monthly**	**Quarterly**	**Semiannually**
0 to <25	Quarterly	Annually	Annually.
25 to <50	Quarterly	Semiannually	Annually.
50 to <75	Bimonthly	Three quarters	Semiannually.
75 to 100	Monthly	Quarterly	Semiannually.

(2) Pumps and valves that are shared among two or more batch process units that are subject to this subpart may be monitored at the frequencies specified in paragraph (f)(1) of this section, provided the operating time of all such process units is considered.

(3) The monitoring frequencies specified in paragraph (f)(1) of this section are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. An owner or operator may monitor at any time during the specified monitoring period (e.g., month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. Reasonable intervals are defined in paragraphs (f)(3)(i) through (iv) of this section.

(i) When monitoring is conducted quarterly, monitoring events must be separated by at least 30 calendar days.

(ii) When monitoring is conducted semiannually (*i.e.* , once every 2 quarters), monitoring events must be separated by at least 60 calendar days.

(iii) When monitoring is conducted in 3 quarters per year, monitoring events must be separated by at least 90 calendar days.

(iv) When monitoring is conducted annually, monitoring events must be separated by at least 120 calendar days.

(g) If the storage vessel is shared with multiple process units, the process unit with the greatest annual amount of stored materials (predominant use) is the process unit the storage vessel is assigned to. If the storage vessel is shared equally among process units, and one of the process units has equipment subject to this subpart, the storage vessel is assigned to that process unit. If the storage vessel is shared equally among process units, none of which have equipment subject to this subpart of this part, the storage vessel is assigned to any process unit subject to subpart VV of this part. If the predominant use of the storage vessel varies from year to year, then the owner or operator must estimate the predominant use initially and reassess every 3 years. The owner or operator must keep records of the information and supporting calculations that show how predominant use is determined. All equipment on the storage vessel must be monitored when in VOC service.

Effective Date Note: At 73 FR 31376, June 2, 2008, in §60.482–1a, paragraph (g) was stayed until further notice.

§ 60.482-2a 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 §60.485a(b), except as provided in §60.482–1a(c) and (f) and paragraphs (d), (e), and (f) of this section. A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in §60.482–1a(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, except as provided in §60.482–1a(f).

(b)(1) The instrument reading that defines a leak is specified in paragraphs (b)(1)(i) and (ii) of this section.

(i) 5,000 parts per million (ppm) or greater for pumps handling polymerizing monomers;

(ii) 2,000 ppm or greater for all other pumps.

(2) If there are indications of liquids dripping from the pump seal, the owner or operator shall follow the procedure specified in either paragraph (b)(2)(i) or (ii) of this section. This requirement does not apply to a

pump that was monitored after a previous weekly inspection and the instrument reading was less than the concentration specified in paragraph (b)(1)(i) or (ii) of this section, whichever is applicable.

(i) Monitor the pump within 5 days as specified in §60.485a(b). A leak is detected if the instrument reading measured during monitoring indicates a leak as specified in paragraph (b)(1)(i) or (ii) of this section, whichever is applicable. The leak shall be repaired using the procedures in paragraph (c) of this section.

(ii) Designate the visual indications of liquids dripping as a leak, and repair the leak using either the procedures in paragraph (c) of this section or by eliminating the visual indications of liquids dripping.

(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 §60.482–9a.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in paragraphs (c)(2)(i) and (ii) of this section, where practicable.

(i) Tightening the packing gland nuts;

(ii) Ensuring that the seal flush is operating at design pressure and temperature.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a) of this section, provided the requirements specified in paragraphs (d)(1) through (6) of this section 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) Equipped 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 §60.482–10a; 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)(i) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(ii) If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (d)(4)(ii)(A) or (B) of this section prior to the next required inspection.

(A) Monitor the pump within 5 days as specified in §60.485a(b) to determine if there is a leak of VOC in the barrier fluid. If an instrument reading of 2,000 ppm or greater is measured, a leak is detected.

(B) Designate the visual indications of liquids dripping as a leak.

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

(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.

(iii) If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion established in paragraph (d)(5)(ii) of this section, a leak is detected.

(6)(i) When a leak is detected pursuant to paragraph (d)(4)(ii)(A) of this section, it shall be repaired as specified in paragraph (c) of this section.

(ii) A leak detected pursuant to paragraph (d)(5)(iii) of this section shall be repaired within 15 days of detection by eliminating the conditions that activated the sensor.

(iii) A designated leak pursuant to paragraph (d)(4)(ii)(B) of this section shall be repaired within 15 days of detection by eliminating visual indications of liquids dripping.

(e) Any pump that is designated, as described in §60.486a(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), (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 §60.485a(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 §60.482–10a, it is exempt from paragraphs (a) through (e) of this section.

(g) Any pump that is designated, as described in §60.486a(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.

§ 60.482-3a 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 §60.482–1a(c) and paragraphs (h), (i), and (j) of this section.

(b) Each compressor seal system as required in paragraph (a) of this section 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 §60.482–10a; 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) of this section 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) of this section, 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 §60.482–9a.

(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 §60.482–10a, except as provided in paragraph (i) of this section.

(i) Any compressor that is designated, as described in §60.486a(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) through (h) of this section 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 §60.485a(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 paragraphs (a) through (e) and (h) of this section, 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.

§ 60.482-4a 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 §60.485a(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 §60.482–9a.

(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 §60.485a(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 §60.482–10a 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 §60.482–9a.

§ 60.482-5a Standards: Sampling connection systems.

(a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in §60.482–1a(c) and paragraph (c) of this section.

(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) Gases displaced during filling of the sample container are not required to be collected or captured.

(2) Containers that are part of a closed-purge system must be covered or closed when not being filled or emptied.

(3) Gases remaining in the tubing or piping between the closed-purge system valve(s) and sample container valve(s) after the valves are closed and the sample container is disconnected are not required to be collected or captured.

(4) Each closed-purge, closed-loop, or closed-vent system shall be designed and operated to meet requirements in either paragraph (b)(4)(i), (ii), (iii), or (iv) of this section.

(i) Return the purged process fluid directly to the process line.

(ii) Collect and recycle the purged process fluid to a process.

(iii) Capture and transport all the purged process fluid to a control device that complies with the requirements of §60.482–10a.

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

(A) 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;

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

(C) 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;

(D) A waste management unit subject to and operated in compliance with the treatment requirements of 40 CFR 61.348(a), provided all waste management units that collect, store, or transport the purged process fluid to the treatment unit are subject to and operated in compliance with the management requirements of 40 CFR 61.343 through 40 CFR 61.347; or

(E) A device used to burn off-specification used oil for energy recovery in accordance with 40 CFR part 279, subpart G, provided the purged process fluid is 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.

§ 60.482-6a 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 §60.482–1a(c) and paragraphs (d) and (e) of this section.

(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) of this section 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.

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

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

(2) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to paragraphs (a)(2)(i) or (ii), except for a valve that replaces a leaking valve and except as provided in paragraphs (f), (g), and (h) of this section, §60.482–1a(c), and §§60.483–1a and 60.483–2a.

(i) Monitor the valve as in paragraph (a)(1) of this section. The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation.

(ii) If the existing valves in the process unit are monitored in accordance with §60.483–1a or §60.483–2a, count the new valve as leaking when calculating the percentage of valves leaking as described in §60.483–2a(b)(5). If less than 2.0 percent of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first.

(b) If an instrument reading of 500 ppm or greater is measured, a leak is detected.

(c)(1)(i) 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.

(ii) As an alternative to monitoring all of the valves in the first month of a quarter, an owner or operator may elect to subdivide the process unit into two or three subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The owner or operator must keep records of the valves assigned to each subgroup.

(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 §60.482–9a.

(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 §60.486a(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) of this section 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 §60.485a(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 §60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) of this section 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) of this section, 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 §60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) of this section 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:

(i) Becomes an affected facility through §60.14 or §60.15 and was constructed on or before January 5, 1981; or

(ii) Has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator.

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

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

(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 §60.485a(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 within 5 calendar days of detection.

(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 §60.482–9a.

(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 §§60.482–2a(c)(2) and 60.482–7a(e).

§ 60.482-9a 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. Monitoring to verify repair must occur within 15 days after startup of the process unit.

(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 and connectors 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 §60.482–10a.

(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.

(f) When delay of repair is allowed for a leaking pump, valve, or connector that remains in service, the pump, valve, or connector may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.

§ 60.482-10a 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 (ppmv), 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 ppmv, 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 (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 (ii) of this section:

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

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

(g) Leaks, as indicated by an instrument reading greater than 500 ppmv 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 (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 (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 (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 §60.486a(c).

(4) For each inspection conducted in accordance with §60.485a(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.

§ 60.482-11a Standards: Connectors in gas/vapor service and in light liquid service.

(a) The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after initial startup. If all connectors in the process unit have been monitored for leaks prior to the compliance date, no initial monitoring is required provided either no process changes have been made since the monitoring or the owner or operator can determine that the results of the monitoring, with or without adjustments, reliably demonstrate compliance despite process changes. If required to monitor because of a process change, the owner or operator is required to monitor only those connectors involved in the process change.

(b) Except as allowed in §60.482–1a(c), §60.482–10a, or as specified in paragraph (e) of this section, the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified in paragraphs (a) and (b)(3) of this section.

(1) The connectors shall be monitored to detect leaks by the method specified in §60.485a(b) and, as applicable, §60.485a(c).

(2) If an instrument reading greater than or equal to 500 ppm is measured, a leak is detected.

(3) The owner or operator shall perform monitoring, subsequent to the initial monitoring required in paragraph (a) of this section, as specified in paragraphs (b)(3)(i) through (iii) of this section, and shall comply with the requirements of paragraphs (b)(3)(iv) and (v) of this section. The required period in which monitoring must be conducted shall be determined from paragraphs (b)(3)(i) through (iii) of this section using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in paragraph (c) of this section.

(i) If the percent leaking connectors in the process unit was greater than or equal to 0.5 percent, then monitor within 12 months (1 year).

(ii) If the percent leaking connectors in the process unit was greater than or equal to 0.25 percent but less than 0.5 percent, then monitor within 4 years. An owner or operator may comply with the requirements of this paragraph by monitoring at least 40 percent of the connectors within 2 years of the start of the monitoring period, provided all connectors have been monitored by the end of the 4-year monitoring period.

(iii) If the percent leaking connectors in the process unit was less than 0.25 percent, then monitor as provided in paragraph (b)(3)(iii)(A) of this section and either paragraph (b)(3)(iii)(B) or (b)(3)(iii)(C) of this section, as appropriate.

(A) An owner or operator shall monitor at least 50 percent of the connectors within 4 years of the start of the monitoring period.

(B) If the percent of leaking connectors calculated from the monitoring results in paragraph (b)(3)(iii)(A) of this section is greater than or equal to 0.35 percent of the monitored connectors, the owner or operator shall monitor as soon as practical, but within the next 6 months, all connectors that have not yet been monitored during the monitoring period. At the conclusion of monitoring, a new monitoring period shall be started pursuant to paragraph (b)(3) of this section, based on the percent of leaking connectors within the total monitored connectors.

(C) If the percent of leaking connectors calculated from the monitoring results in paragraph (b)(3)(iii)(A) of this section is less than 0.35 percent of the monitored connectors, the owner or operator shall monitor all connectors that have not yet been monitored within 8 years of the start of the monitoring period.

(iv) If, during the monitoring conducted pursuant to paragraphs (b)(3)(i) through (iii) of this section, a connector is found to be leaking, it shall be re-monitored once within 90 days after repair to confirm that it is not leaking.

(v) The owner or operator shall keep a record of the start date and end date of each monitoring period under this section for each process unit.

(c) For use in determining the monitoring frequency, as specified in paragraphs (a) and (b)(3) of this section, the percent leaking connectors as used in paragraphs (a) and (b)(3) of this section shall be calculated by using the following equation:

$\%C_L = C_L / C_t * 100$

Where:

$\%C_L$= Percent of leaking connectors as determined through periodic monitoring required in paragraphs (a) and (b)(3)(i) through (iii) of this section.

C_L= Number of connectors measured at 500 ppm or greater, by the method specified in §60.485a(b).

C_t= Total number of monitored connectors in the process unit or affected facility.

(d) When a leak is detected pursuant to paragraphs (a) and (b) of this section, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482–9a. A first attempt at repair as defined in this subpart shall be made no later than 5 calendar days after the leak is detected.

(e) Any connector that is designated, as described in §60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of paragraphs (a) and (b) of this section if:

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

(2) The owner or operator of the connector has a written plan that requires monitoring of the connector 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 (d) of this section if a leak is detected.

(f) *Inaccessible, ceramic, or ceramic-lined connectors* . (1) Any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of paragraphs (a) and (b) of this section, from the leak repair requirements of paragraph (d) of this section, and from the recordkeeping and reporting requirements of §§63.1038 and 63.1039. An inaccessible connector is one that meets any of the provisions specified in paragraphs (f)(1)(i) through (vi) of this section, as applicable:

(i) Buried;

(ii) Insulated in a manner that prevents access to the connector by a monitor probe;

(iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe;

(iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground;

(v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or

(vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment.

(2) If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical.

(g) Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of paragraph (f) of this section, identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated.

Effective Date Note: At 73 FR 31376, June 2, 2008, §60.482–11a was stayed until further notice.

§ 60.483-1a 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 §60.487a(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 §60.482–7a(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 §60.485a(b).

(2) If an instrument reading of 500 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, determined as described in §60.485a(h).

§ 60.483-2a 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)a.

(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 §60.482–7a.

(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 §60.482–7a but can again elect to use this section.

(5) The percent of valves leaking shall be determined as described in §60.485a(h).

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

(7) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for a process unit following one of the alternative standards in this section must be monitored in accordance with §60.482–7a(a)(2)(i) or (ii) before the provisions of this section can be applied to that valve.

§ 60.484a Equivalence of means of emission limitation.

(a) Each owner or operator subject to the provisions of this subpart may apply to the Administrator for determination of equivalence for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart.

(b) Determination of equivalence to the equipment, design, and operational requirements of this subpart will be evaluated by the following guidelines:

(1) Each owner or operator applying for an equivalence determination shall be responsible for collecting and verifying test data to demonstrate equivalence of means of emission limitation.

(2) The Administrator will compare test data for demonstrating equivalence of the means of emission limitation to test data for the equipment, design, and operational requirements.

(3) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the equipment, design, and operational requirements.

(c) Determination of equivalence to the required work practices in this subpart will be evaluated by the following guidelines:

(1) Each owner or operator applying for a determination of equivalence shall be responsible for collecting and verifying test data to demonstrate equivalence of an equivalent means of emission limitation.

(2) For each affected facility for which a determination of equivalence is requested, the emission reduction achieved by the required work practice shall be demonstrated.

(3) For each affected facility, for which a determination of equivalence is requested, the emission reduction achieved by the equivalent means of emission limitation shall be demonstrated.

(4) Each owner or operator applying for a determination of equivalence shall commit in writing to work practice(s) that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practice.

(5) The Administrator will compare the demonstrated emission reduction for the equivalent means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (c)(4) of this section.

(6) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the required work practice.

(d) An owner or operator may offer a unique approach to demonstrate the equivalence of any equivalent means of emission limitation.

(e)(1) After a request for determination of equivalence is received, the Administrator will publish a notice in the Federal Register and provide the opportunity for public hearing if the Administrator judges that the request may be approved.

(2) After notice and opportunity for public hearing, the Administrator will determine the equivalence of a means of emission limitation and will publish the determination in the Federal Register .

(3) Any equivalent means of emission limitations approved under this section shall constitute a required work practice, equipment, design, or operational standard within the meaning of section 111(h)(1) of the CAA.

(f)(1) Manufacturers of equipment used to control equipment leaks of VOC may apply to the Administrator for determination of equivalence for any equivalent means of emission limitation that achieves a reduction in emissions of VOC achieved by the equipment, design, and operational requirements of this subpart.

(2) The Administrator will make an equivalence determination according to the provisions of paragraphs (b), (c), (d), and (e) of this section.

§ 60.485a 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 §§60.482–1a through 60.482–11a, 60.483a, and 60.484a 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 of appendix A–7 of this part. 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 no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be

used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring.

(2) A calibration drift assessment shall be performed, at a minimum, at the end of each monitoring day. Check the instrument using the same calibration gas(es) that were used to calibrate the instrument before use. Follow the procedures specified in Method 21 of appendix A–7 of this part, Section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. Record the instrument reading for each scale used as specified in §60.486a(e)(7). Calculate the average algebraic difference between the three meter readings and the most recent calibration value. Divide this algebraic difference by the initial calibration value and multiply by 100 to express the calibration drift as a percentage. If any calibration drift assessment shows a negative drift of more than 10 percent from the initial calibration value, then all equipment monitored since the last calibration with instrument readings below the appropriate leak definition and above the leak definition multiplied by (100 minus the percent of negative drift/divided by 100) must be re-monitored. If any calibration drift assessment shows a positive drift of more than 10 percent from the initial calibration value, then, at the owner/operator's discretion, all equipment since the last calibration with instrument readings above the appropriate leak definition and below the leak definition multiplied by (100 plus the percent of positive drift/divided by 100) may be re-monitored.

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

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

(2) Method 21 of appendix A–7 of this part 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 a piece of equipment is in light liquid service by showing that all the following conditions apply:

(1) The vapor pressure of one or more of the organic 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 organic 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 of appendix A–7 of this part 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^{-6} [(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 of appendix A–6 of this part or ASTM D6420–99 (2004) (where the target compound(s) are those listed in Section 1.1 of ASTM D6420–99, and the target concentration is between 150 parts per billion by volume and 100 ppmv) 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 of appendix A–7 of this part, 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.

(h) The owner or operator shall determine compliance with §60.483–1a or §60.483–2a as follows:

(1) The percent of valves leaking shall be determined using the following equation:

$\%V_L = (V_L / V_T) * 100$

Where:

$\%V_L$ = Percent leaking valves.

V_L = Number of valves found leaking.

V_T = The sum of the total number of valves monitored.

(2) The total number of valves monitored shall include difficult-to-monitor and unsafe-to-monitor valves only during the monitoring period in which those valves are monitored.

(3) The number of valves leaking shall include valves for which repair has been delayed.

(4) Any new valve that is not monitored within 30 days of being placed in service shall be included in the number of valves leaking and the total number of valves monitored for the monitoring period in which the valve is placed in service.

(5) If the process unit has been subdivided in accordance with §60.482–7a(c)(1)(ii), the sum of valves found leaking during a monitoring period includes all subgroups.

(6) The total number of valves monitored does not include a valve monitored to verify repair.

§ 60.486a 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.

(3) The owner or operator shall record the information specified in paragraphs (a)(3)(i) through (v) of this section for each monitoring event required by §§60.482–2a, 60.482–3a, 60.482–7a, 60.482–8a, 60.482–11a, and 60.483–2a.

(i) Monitoring instrument identification.

(ii) Operator identification.

(iii) Equipment identification.

(iv) Date of monitoring.

(v) Instrument reading.

(b) When each leak is detected as specified in §§60.482–2a, 60.482–3a, 60.482–7a, 60.482–8a, 60.482–11a, and 60.483–2a, 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 §60.482–7a(c) and no leak has been detected during those 2 months.

(3) The identification on a connector may be removed after it has been monitored as specified in §60.482–11a(b)(3)(iv) and no leak has been detected during that monitoring.

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

(c) When each leak is detected as specified in §§60.482–2a, 60.482–3a, 60.482–7a, 60.482–8a, 60.482–11a, and 60.483–2a, 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, except when indications of liquids dripping from a pump are designated as a leak.

(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) Maximum instrument reading measured by Method 21 of appendix A–7 of this part at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping.

(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 §60.482–10a 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 §60.482–10a(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 §§60.482–2a, 60.482–3a, 60.482–4a, and 60.482–5a 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 §§60.482–2a, 60.482–3a, 60.482–4a, and 60.482–5a.

(e) The following information pertaining to all equipment subject to the requirements in §§60.482–1a to 60.482–11a 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 §§60.482–2a(e), 60.482–3a(i), and 60.482–7a(f).

(ii) The designation of equipment as subject to the requirements of §60.482–2a(e), §60.482–3a(i), or §60.482–7a(f) shall be signed by the owner or operator. Alternatively, the owner or operator may establish a mechanism with their permitting authority that satisfies this requirement.

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

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

(6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482–1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr.

(7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service.

(8) Records of the information specified in paragraphs (e)(8)(i) through (vi) of this section for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A–7 of this part and §60.485a(b).

(i) Date of calibration and initials of operator performing the calibration.

(ii) Calibration gas cylinder identification, certification date, and certified concentration.

(iii) Instrument scale(s) used.

(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A–7 of this part.

(v) Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value).

(vi) If an owner or operator makes their own calibration gas, a description of the procedure used.

(9) The connector monitoring schedule for each process unit as specified in §60.482–11a(b)(3)(v).

(10) Records of each release from a pressure relief device subject to §60.482–4a.

(f) The following information pertaining to all valves subject to the requirements of §60.482–7a(g) and (h), all pumps subject to the requirements of §60.482–2a(g), and all connectors subject to the requirements of §60.482–11a(e) shall be recorded in a log that is kept in a readily accessible location:

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

(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 §60.483–2a:

(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 §§60.482–2a(d)(5) and 60.482–3a(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 §60.480a(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.

§ 60.487a Reporting requirements.

(a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning 6 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 §60.482–7a, excluding those valves designated for no detectable emissions under the provisions of §60.482–7a(f).

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

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

(5) Number of connectors subject to the requirements of §60.482–11a.

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

(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 §60.482–7a(b) or §60.483–2a,

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

(iii) Number of pumps for which leaks were detected as described in §60.482–2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii),

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

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

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

(vii) Number of connectors for which leaks were detected as described in §60.482–11a(b)

(viii) Number of connectors for which leaks were not repaired as required in §60.482–11a(d), and

(ix)–(x) [Reserved]

(xi) 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) of this section 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 §§60.483–1a or 60.483–2a 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 CAA, 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.

§ 60.488a Reconstruction.

For the purposes of this subpart:

(a) The cost of the following frequently replaced components of the facility shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital costs that would be required to construct a comparable new facility” under §60.15: Pump seals, nuts and bolts, rupture disks, and packings.

(b) Under §60.15, the “fixed capital cost of new components” includes the fixed capital cost of all depreciable components (except components specified in §60.488a(a)) which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following the applicability date for the appropriate subpart. (See the “Applicability and designation of affected facility” section of the appropriate subpart.) For purposes of this paragraph, “commenced” means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

§ 60.489a List of chemicals produced by affected facilities.

Process units that produce, as intermediates or final products, chemicals listed in §60.489 are covered under this subpart. The applicability date for process units producing one or more of these chemicals is November 8, 2006.

Indiana Department of Environmental Management
Office of Air Quality

Attachment C

Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

Source: 72 FR 32759, June 13, 2007, unless otherwise noted.

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraphs (d), (e), (f), and (g) 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/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).

(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 (SO_2) 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) Affected facilities (*i.e.* heat recovery steam generators and fuel heaters) that are associated with stationary combustion turbines and meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators, fuel heaters, and other affected facilities that are capable of combusting more than or equal to 2.9 MW (10 MMBtu/h) heat input of fossil fuel but less than or equal to 29 MW (100 MMBtu/h) heat input of fossil fuel. If the heat recovery steam generator, fuel heater, or other affected facility is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The stationary combustion turbine emissions are subject to subpart GG or KKKK, as applicable, of this part.)

(f) Any affected facility that meets the applicability requirements of and is subject to subpart AAAA or subpart CCCC of this part is not subject to this subpart.

(g) Any facility that meets the applicability requirements and is subject to an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not subject to this subpart.

(h) Affected facilities that also meet the applicability requirements under subpart J or subpart Ja of this part are subject to the PM and NO_Xstandards under this subpart and the SO_2standards under subpart J or subpart Ja of this part, as applicable.

(i) Temporary boilers are not subject to this subpart.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

§ 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 not meeting the definition of natural gas, 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.

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), diesel fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see §60.17), kerosine, as defined by the American Society of Testing and Materials in ASTM D3699 (incorporated by reference, see §60.17), biodiesel as defined by the American Society of Testing and Materials in ASTM D6751 (incorporated by reference, see §60.17), or biodiesel blends as defined by the American Society of Testing and Materials in ASTM D7467 (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); or

(3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

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 heats any 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.

Temporary boiler means a steam generating unit that combusts natural gas or distillate oil with a potential SO_2emissions rate no greater than 26 ng/J (0.060 lb/MMBtu), and the unit is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A steam generating unit is not a temporary boiler if any one of the following conditions exists:

(1) The equipment is attached to a foundation.

(2) The steam generating unit or a replacement remains at a location for more than 180 consecutive days. Any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period.

(3) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.

(4) The equipment is moved from one location to another in an attempt to circumvent the residence time requirements of this definition.

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.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

§ 60.42c Standard for sulfur dioxide (SO_2).

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that combusts only coal shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2in excess of the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that:

(1) Combusts only coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO_2emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of SO_2in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is fired with coal refuse, the affected facility subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 87 ng/J (0.20 lb/MMBtu) heat input SO_2emissions limit or the 90 percent SO_2reduction requirement specified in paragraph (a) of this section and the emission limit is determined pursuant to paragraph (e)(2) of this section.

(2) Combusts only coal and that uses an emerging technology for the control of SO_2emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of 50 percent (0.50) of the potential SO_2emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of 260 ng/J (0.60 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent SO_2reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.

(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).

(1) Affected facilities that have a heat input capacity of 22 MW (75 MMBtu/h) or less;

(2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.

(3) Affected facilities located in a noncontinental area; or

(4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.

(d) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of 215 ng/J (0.50 lb/MMBtu) heat input from oil; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(e) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of the following:

(1) The percent of potential SO_2emission rate or numerical SO_2emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that

(i) Combusts coal in combination with any other fuel;

(ii) Has a heat input capacity greater than 22 MW (75 MMBtu/h); and

(iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and

(2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

$$E_s = \frac{(K_a H_a + K_b H_b + K_c H_c)}{(H_a + H_b + H_c)}$$

Where:

E_s= SO_2emission limit, expressed in ng/J or lb/MMBtu heat input;

K_a= 520 ng/J (1.2 lb/MMBtu);

K_b= 260 ng/J (0.60 lb/MMBtu);

K_c= 215 ng/J (0.50 lb/MMBtu);

H_a= Heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [MMBtu];

H_b= Heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (MMBtu); and

H_c= Heat input from the combustion of oil, in J (MMBtu).

(f) Reduction in the potential SO_2emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO_2emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO_2control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), (3), or (4) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under §60.48c(f), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 MMBtu/hr).

(2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(3) Coal-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/h).

(4) Other fuels-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/h).

(i) The SO_2emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) For affected facilities located in noncontinental areas and affected facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9462, Feb. 16, 2012]

§ 60.43c Standard for particulate matter (PM).

(a) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.051 lb/MMBtu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(b) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts wood or combusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emissions limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or

(2) 130 ng/J (0.30 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.

(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators of an affected facility that elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of this subpart and are subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less are exempt from the opacity standard specified in this paragraph (c).

(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

(e)(1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input, except as provided in paragraphs (e)(2), (e)(3), and (e)(4) of this section.

(2) As an alternative to meeting the requirements of paragraph (e)(1) of this section, the owner or operator of an affected facility for which modification commenced after February 28, 2005, may elect to meet the requirements of this paragraph. On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of both:

(i) 22 ng/J (0.051 lb/MMBtu) heat input derived from the combustion of coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels; and

(ii) 0.2 percent of the combustion concentration (99.8 percent reduction) when combusting coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels.

(3) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) An owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under §60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO_2emissions is not subject to the PM limit in this section.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 77 FR 9462, Feb. 16, 2012]

§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide.

(a) Except as provided in paragraphs (g) and (h) of this section and §60.8(b), performance tests required under §60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in §60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(b) The initial performance test required under §60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO_2emission limits under §60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affect facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.

(c) After the initial performance test required under paragraph (b) of this section and §60.8, compliance with the percent reduction requirements and SO_2emission limits under §60.42c is based on the average percent reduction and the average SO_2emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO_2emission rate are calculated to show compliance with the standard.

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 of appendix A of this part are used to determine the hourly SO_2emission rate (E_{ho}) and the 30-day average SO_2emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the CEMS. Method 19 of appendix A of this part shall be used to calculate $E_{ao}$when using daily fuel sampling or Method 6B of appendix A of this part.

(e) If coal, oil, or coal and oil are combusted with other fuels:

(1) An adjusted E_{ho}(E_{ho}o) is used in Equation 19–19 of Method 19 of appendix A of this part to compute the adjusted E_{ao}(E_{ao}o). The E_{ho}o is computed using the following formula:

$$E_{ho}o = \frac{E_{ho} - E_w(1 - X_1)}{X_1}$$

Where:

$E_{ho}o$ = Adjusted E_{ho}, ng/J (lb/MMBtu);

E_{ho}= Hourly SO_2emission rate, ng/J (lb/MMBtu);

E_w= SO_2concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9 of appendix A of this part, ng/J (lb/MMBtu). The value $E_w$for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure $E_w$if the owner or operator elects to assume E_w= 0.

X_k= Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(2) The owner or operator of an affected facility that qualifies under the provisions of §60.42c(c) or (d) (where percent reduction is not required) does not have to measure the parameters $E_w$or $X_k$if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the fuel sampling and analysis procedures under Method 19 of appendix A of this part.

(f) Affected facilities subject to the percent reduction requirements under §60.42c(a) or (b) shall determine compliance with the SO_2emission limits under §60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential SO_2emission rate is computed using the following formula:

$$\%P_s = 100\left(1 - \frac{\%R_g}{100}\right)\left(1 - \frac{\%R_f}{100}\right)$$

Where:

$\%P_s$= Potential SO_2emission rate, in percent;

$\%R_g$= SO_2removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

$\%R_f$= SO_2removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

(2) If coal, oil, or coal and oil are combusted with other fuels, the same procedures required in paragraph (f)(1) of this section are used, except as provided for in the following:

(i) To compute the $\%P_s$, an adjusted $\%R_g$($\%R_g$o) is computed from E_{ao}o from paragraph (e)(1) of this section and an adjusted average SO_2inlet rate (E_{ai}o) using the following formula:

$$\%R_g o = 100\left(1 - \frac{E^{\circ}_{ao}}{E^{\circ}_{ai}}\right)$$

Where:

$\%R_g o$ = Adjusted $\%R_g$, in percent;

$E_{ao}o$ = Adjusted E_{ao}, ng/J (lb/MMBtu); and

$E_{ai}o$ = Adjusted average SO_2inlet rate, ng/J (lb/MMBtu).

(ii) To compute $E_{ai}o$, an adjusted hourly SO_2inlet rate ($E_{hi}o$) is used. The $E_{hi}o$ is computed using the following formula:

$$E_{hi}o = \frac{E_{hi} - E_w(1 - X_k)}{X_k}$$

Where:

$E_{hi}o$ = Adjusted E_{hi}, ng/J (lb/MMBtu);

E_{hi}= Hourly SO_2inlet rate, ng/J (lb/MMBtu);

E_w= SO_2concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value $E_w$for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure $E_w$if the owner or operator elects to assume E_w= 0; and

X_k= Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under §60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under §60.46c(d)(2).

(h) For affected facilities subject to §60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO_2standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in §60.48c(f), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO_2standards under §60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO_2emissions data in calculating $\%P_s$and E_{ho}under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under §60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating $\%P_s$or E_{ho}pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

§ 60.45c Compliance and performance test methods and procedures for particulate matter.

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under §60.43c shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods, except as specified in paragraph (c) of this section.

(1) Method 1 of appendix A of this part shall be used to select the sampling site and the number of traverse sampling points.

(2) Method 3A or 3B of appendix A–2 of this part shall be used for gas analysis when applying Method 5 or 5B of appendix A–3 of this part or 17 of appendix A–6 of this part.

(3) Method 5, 5B, or 17 of appendix A of this part shall be used to measure the concentration of PM as follows:

(i) Method 5 of appendix A of this part may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 of appendix A of this part may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 8.1 and 11.1 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if Method 17 of appendix A of this part is used in conjunction with a wet scrubber system. Method 17 of appendix A of this part shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B of appendix A of this part may be used in conjunction with a wet scrubber system.

(4) The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry standard cubic meters (dscm) [60 dry standard cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(5) For Method 5 or 5B of appendix A of this part, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 ±14 °C (320±25 °F).

(6) For determination of PM emissions, an oxygen (O_2) or carbon dioxide (CO_2) measurement shall be obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

(7) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rates expressed in ng/J (lb/MMBtu) heat input shall be determined using:

(i) The O_2or CO_2measurements and PM measurements obtained under this section, (ii) The dry basis F factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 of appendix A of this part.

(8) Method 9 of appendix A–4 of this part shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under §60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(c) In place of PM testing with Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part shall install, calibrate, maintain, and operate a CEMS and shall comply with the requirements specified in paragraphs (c)(1) through (c)(14) of this section.

(1) Notify the Administrator 1 month before starting use of the system.

(2) Notify the Administrator 1 month before stopping use of the system.

(3) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.

(5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under §60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (d) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.

(6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.

(7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraph (c)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) [Reserved]

(8) The 1-hour arithmetic averages required under paragraph (c)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.

(9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (c)(7) of this section are not met.

(10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O_2(or CO_2) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.

(i) For PM, Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part shall be used; and

(ii) For O2 (or CO_2), Method 3A or 3B of appendix A–2 of this part, as applicable shall be used.

(12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.

(13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours on a 30-day rolling average.

(14) As of January 1, 2012, and within 90 days after the date of completing each performance test, as defined in §60.8, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (*i.e.,* reference method) data and performance test (*i.e.,* compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/ert tool.html/*) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

(d) The owner or operator of an affected facility seeking to demonstrate compliance under §60.43c(e)(4) shall follow the applicable procedures under §60.48c(f). For residual oil-fired affected facilities, fuel supplier certifications are only allowed for facilities with heat input capacities between 2.9 and 8.7 MW (10 to 30 MMBtu/h).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9463, Feb. 16, 2012]

§ 60.46c Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO_2emission limits under §60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO_2concentrations and either O_2or CO_2concentrations at the outlet of the SO_2control device (or the outlet of the steam generating unit if no SO_2control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under §60.42c shall measure SO_2concentrations and either O_2or CO_2concentrations at both the inlet and outlet of the SO_2control device.

(b) The 1-hour average SO_2emission rates measured by a CEMS shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.42c. Each 1-hour average SO_2emission rate must be based on at least 30 minutes of operation, and shall be calculated using the data points required under §60.13(h)(2). Hourly SO_2emission rates are not calculated if the affected

facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(c) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.

(3) For affected facilities subject to the percent reduction requirements under §60.42c, the span value of the SO_2CEMS at the inlet to the SO_2control device shall be 125 percent of the maximum estimated hourly potential SO_2emission rate of the fuel combusted, and the span value of the SO_2CEMS at the outlet from the SO_2control device shall be 50 percent of the maximum estimated hourly potential SO_2emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of §60.42c, the span value of the SO_2CEMS at the outlet from the SO_2control device (or outlet of the steam generating unit if no SO_2control device is used) shall be 125 percent of the maximum estimated hourly potential SO_2emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO_2control device (or outlet of the steam generating unit if no SO_2control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO_2control device (or outlet of the steam generating unit if no SO_2control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2emission rate by using Method 6B of appendix A of this part. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B of appendix A of this part shall be conducted pursuant to paragraph (d)(3) of this section.

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according the Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO_2input rate.

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B of appendix A of this part may be used in lieu of CEMS to measure SO_2at the inlet or outlet of the SO_2control system. An initial stratification test is required to verify the adequacy of the Method 6B of appendix A of this part sampling location. The stratification test shall consist of three paired runs of a suitable $SO_2$and CO_2measurement train operated at the candidate location and a second similar train operated according to the procedures in §3.2 and the applicable procedures in section 7 of

Performance Specification 2 of appendix B of this part. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 of appendix A of this part or Methods 6C and 3A of appendix A of this part are suitable measurement techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO_2standards based on fuel supplier certification, as described under §60.48c(f), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

§ 60.47c Emission monitoring for particulate matter.

(a) Except as provided in paragraphs (c), (d), (e), and (f) of this section, the owner or operator of an affected facility combusting coal, oil, or wood that is subject to the opacity standards under §60.43c shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility subject to an opacity standard in §60.43c(c) that is not required to use a COMS due to paragraphs (c), (d), (e), or (f) of this section that elects not to use a COMS shall conduct a performance test using Method 9 of appendix A–4 of this part and the procedures in §60.11 to demonstrate compliance with the applicable limit in §60.43c by April 29, 2011, within 45 days of stopping use of an existing COMS, or within 180 days after initial startup of the facility, whichever is later, and shall comply with either paragraphs (a)(1), (a)(2), or (a)(3) of this section. The observation period for Method 9 of appendix A–4 of this part performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.

(1) Except as provided in paragraph (a)(2) and (a)(3) of this section, the owner or operator shall conduct subsequent Method 9 of appendix A–4 of this part performance tests using the procedures in paragraph (a) of this section according to the applicable schedule in paragraphs (a)(1)(i) through (a)(1)(iv) of this section, as determined by the most recent Method 9 of appendix A–4 of this part performance test results.

(i) If no visible emissions are observed, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(ii) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within

3 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or

(iv) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted.

(2) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A–4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A–4 of this part performance tests, elect to perform subsequent monitoring using Method 22 of appendix A–7 of this part according to the procedures specified in paragraphs (a)(2)(i) and (ii) of this section.

(i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A–7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (*i.e.* , 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (*i.e.,* 90 seconds per 30 minute period), the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation (*i.e.,* 90 seconds) or conduct a new Method 9 of appendix A–4 of this part performance test using the procedures in paragraph (a) of this section within 45 calendar days according to the requirements in §60.45c(a)(8).

(ii) If no visible emissions are observed for 10 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed.

(3) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A–4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A–4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in paragraph (a)(2) of this section. For reference purposes in preparing the monitoring plan, see OAQPS “Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems.” This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243–02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.

(b) All COMS shall be operated in accordance with the applicable procedures under Performance Specification 1 of appendix B of this part. The span value of the opacity COMS shall be between 60 and 80 percent.

(c) Owners and operators of an affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.060 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO2 or PM emissions and that are subject to an opacity standard in §60.43c(c) are not required to operate a COMS if they follow the applicable procedures in §60.48c(f).

(d) Owners or operators complying with the PM emission limit by using a PM CEMS must calibrate, maintain, operate, and record the output of the system for PM emissions discharged to the atmosphere

as specified in §60.45c(c). The CEMS specified in paragraph §60.45c(c) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(e) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO_2, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur, and is operated such that emissions of CO discharged to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a COMS. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section; or

(1) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (e)(1)(i) through (iv) of this section.

(i) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in §60.58b(i)(3) of subpart Eb of this part.

(ii) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

(iii) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. The 1-hour averages are calculated using the data points required in §60.13(h)(2).

(iv) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(2) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.

(3) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.

(4) You must record the CO measurements and calculations performed according to paragraph (e) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(f) An owner or operator of an affected facility that is subject to an opacity standard in §60.43c(c) is not required to operate a COMS provided that the affected facility meets the conditions in either paragraphs (f)(1), (2), or (3) of this section.

(1) The affected facility uses a fabric filter (baghouse) as the primary PM control device and, the owner or operator operates a bag leak detection system to monitor the performance of the fabric filter according to the requirements in section §60.48Da of this part.

(2) The affected facility uses an ESP as the primary PM control device, and the owner or operator uses an ESP predictive model to monitor the performance of the ESP developed in accordance and operated according to the requirements in section §60.48Da of this part.

(3) The affected facility burns only gaseous fuels and/or fuel oils that contain no greater than 0.5 weight percent sulfur, and the owner or operator operates the unit according to a written site-specific monitoring plan approved by the permitting authority. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard. For testing performed as part of this site-specific monitoring plan, the permitting authority may require as an alternative to the notification and reporting requirements specified in §§60.8 and 60.11 that the owner or operator submit any deviations with the excess emissions report required under §60.48c(c).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9463, Feb. 16, 2012]

§ 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.

(b) The owner or operator of each affected facility subject to the SO_2emission limits of §60.42c, or the PM or opacity limits of §60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B of this part.

(c) In addition to the applicable requirements in §60.7, the owner or operator of an affected facility subject to the opacity limits in §60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period and maintain records according to the requirements specified in paragraphs (c)(1) through (3) of this section, as applicable to the visible emissions monitoring method used.

(1) For each performance test conducted using Method 9 of appendix A–4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(1)(i) through (iii) of this section.

(i) Dates and time intervals of all opacity observation periods;

(ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and

(iii) Copies of all visible emission observer opacity field data sheets;

(2) For each performance test conducted using Method 22 of appendix A–4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(2)(i) through (iv) of this section.

(i) Dates and time intervals of all visible emissions observation periods;

(ii) Name and affiliation for each visible emission observer participating in the performance test;

(iii) Copies of all visible emission observer opacity field data sheets; and

(iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.

(3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator

(d) The owner or operator of each affected facility subject to the SO_2emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO_2emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO_2emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO_2emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.

(4) Identification of any steam generating unit operating days for which SO_2or diluent (O_2or CO_2) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.

(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have

been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.

(7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.

(8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.

(9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 of appendix B of this part.

(10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier;

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and

(iii) The sulfur content or maximum sulfur content of the oil.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(3) For coal:

(i) The name of the coal supplier;

(ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);

(iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(iv) The methods used to determine the properties of the coal.

(4) For other fuels:

(i) The name of the supplier of the fuel;

(ii) The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and

(iii) The method used to determine the potential sulfur emissions rate of the fuel.

(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.

(3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO_2standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

(h) The owner or operator of each affected facility subject to a federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under §60.42c or §60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the 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.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

Indiana Department of Environmental Management
Office of Air Quality

Attachment D

Subpart Kb—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

Source: 52 FR 11429, Apr. 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.

(2) An external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Each external floating roof must meet the following specifications:

(i) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in §60.113b(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall.

(B) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in §60.113b(b)(4).

(ii) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents 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. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(iii) The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

(3) A closed vent system and control device meeting the following specifications:

(i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, §60.485(b).

(ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.

(4) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in §60.114b of this subpart.

(b) The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m^3 which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following:

(1) A closed vent system and control device as specified in §60.112b(a)(3).

(2) A system equivalent to that described in paragraph (b)(1) as provided in §60.114b of this subpart.

(c) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.* This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site").

(1) For any storage vessel that otherwise would be subject to the control technology requirements of paragraphs (a) or (b) of this section, the site shall have the option of either complying directly with the requirements of this subpart, or reducing the site-wide total criteria pollutant emissions cap (total emissions cap) in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the total emissions cap in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this subpart for such storage vessel.

(2) For any storage vessel at the site not subject to the requirements of 40 CFR 60.112b (a) or (b), the requirements of 40 CFR 60.116b (b) and (c) and the General Provisions (subpart A of this part) shall not apply.

[52 FR 11429, Apr. 8, 1987, as amended at 62 FR 52641, Oct. 8, 1997]

§ 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.

(b) After installing the control equipment required to meet §60.112b(a)(2) (external floating roof), the owner or operator shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

(i) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in (b)(4) (i) and (ii) of this section:

(i) The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 Cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.

(A) One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.

(B) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(ii) The secondary seal is to meet the following requirements:

(A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in paragraph (b)(2)(iii) of this section.

(B) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm.

(C) There are to be no holes, tears, or other openings in the seal or seal fabric.

(iii) If a failure that is detected during inspections required in paragraph (b)(1) of §60.113b(b) 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(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external 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, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, the owner or operator shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance of 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.

(c) The owner or operator of each source that is equipped with a closed vent system and control device as required in §60.112b (a)(3) or (b)(2) (other than a flare) is exempt from §60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by §60.7(a)(1) or, if the facility is exempt from §60.7(a)(1), as an attachment to the notification required by §60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

(d) The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in §60.112b (a)(3) or (b)(2) shall meet the requirements as specified in the general control device requirements, §60.18 (e) and (f).

[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989]

§ 60.114b Alternative means of emission limitation.

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in §60.112b, the Administrator will publish in the Federal Register a notice permitting the use of the alternative means for purposes of compliance with that requirement.

(b) Any notice under paragraph (a) of this section will be published only after notice and an opportunity for a hearing.

(c) Any person seeking permission under this section shall submit to the Administrator a written application including:

(1) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.

(2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.

(d) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in §60.112b.

§ 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.

(b) After installing control equipment in accordance with §61.112b(a)(2) (external 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)(2) and §60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by §60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by §60.113b(b)(1), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in §60.113b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by §60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in §60.113b (b)(2) and (b)(3).

(4) After each seal gap measurement that detects gaps exceeding the limitations specified by §60.113b(b)(4), submit a report to the Administrator within 30 days of the inspection. The report will identify the vessel and contain the information specified in paragraph (b)(2) of this section and the date the vessel was emptied or the repairs made and date of repair.

(c) After installing control equipment in accordance with §60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records.

(1) A copy of the operating plan.

(2) A record of the measured values of the parameters monitored in accordance with §60.113b(c)(2).

(d) After installing a closed vent system and flare to comply with §60.112b, the owner or operator shall meet the following requirements.

(1) A report containing the measurements required by §60.18(f) (1), (2), (3), (4), (5), and (6) shall be furnished to the Administrator as required by §60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date.

(2) Records shall be kept of all periods of operation during which the flare pilot flame is absent.

(3) Semiannual reports of all periods recorded under §60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Administrator.

§ 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.

(f) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.

(1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of this section.

(2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in §60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:

(i) ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17); or

(ii) ASTM D323–82 or 94 (incorporated by reference—see §60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specification of §60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of paragraphs (c) and (d) of this section.

[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]

Indiana Department of Environmental Management
Office of Air Quality

Attachment E

Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Source: 71 FR 39172, July 11, 2006, unless otherwise noted.

What This Subpart Covers

§ 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) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines;

(ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.

(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 any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

(4) The provisions of §60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction 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.

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

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part

94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

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

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

Emission Standards for Manufacturers

§ 60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 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;

(2) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(3) Their 2013 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(e) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards and other requirements for new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.110, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later 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.

(f) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary non-emergency CI ICE identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 1 to 40 CFR 1042.1 identifies 40 CFR part 1042 as being applicable, 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Areas of Alaska not accessible by the Federal Aid Highway System (FAHS); and

(2) Marine offshore installations.

(g) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (e) of this section that are applicable to the model year, maximum engine power, and displacement of the reconstructed stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

§ 60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) [Reserved]

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

(e) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder;

(3) Their 2013 model year emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder; and

(4) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(f) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE to the certification emission standards and other requirements applicable to Tier 3 new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power less than 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(g) Notwithstanding the requirements in paragraphs (a) through (d) of this section, stationary emergency CI internal combustion engines identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 2 to 40 CFR 1042.101 identifies Tier 3 standards as being applicable, the requirements applicable to Tier 3 engines in 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Areas of Alaska not accessible by the FAHS; and

(2) Marine offshore installations.

(h) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (f) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed emergency stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011]

§ 60.4203 How long must my engines meet the emission standards if I am a manufacturer of stationary CI internal combustion engines?

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§60.4201 and 60.4202 during the certified emissions life of the engines.

[76 FR 37968, June 28, 2011]

Emission Standards for Owners and Operators

§ 60.4204 What emission standards must I meet for non-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 non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder 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 must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the following requirements:

(1) For engines installed prior to January 1, 2012, limit the emissions of NO_Xin the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 grams per kilowatt-hour (g/KW-hr) (12.7 grams per horsepower-hr (g/HP-hr)) when maximum engine speed is less than 130 revolutions per minute (rpm);

(ii) $45 \cdot n^{-0.2}$g/KW-hr ($34 \cdot n^{-0.2}$g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012 and before January 1, 2016, limit the emissions of NO_Xin the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$g/KW-hr ($33 \cdot n^{-0.23}$g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) For engines installed on or after January 1, 2016, limit the emissions of NO_Xin the stationary CI internal combustion engine exhaust to the following:

(i) 3.4 g/KW-hr (2.5 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $9.0 \cdot n^{-0.20}$g/KW-hr ($6.7 \cdot n^{-0.20}$g/HP-hr) where n (maximum engine speed) is 130 or more but less than 2,000 rpm; and

(iii) 2.0 g/KW-hr (1.5 g/HP-hr) where maximum engine speed is greater than or equal to 2,000 rpm.

(4) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

(d) Owners and operators of non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the not-to-exceed (NTE) standards as indicated in §60.4212.

(e) Owners and operators of any modified or reconstructed non-emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed non-emergency stationary CI ICE that are specified in paragraphs (a) through (d) of this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011]

§ 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 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).

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(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.

(d) Owners and operators of emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in this section.

(1) For engines installed prior to January 1, 2012, limit the emissions of NO_Xin the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $45 \cdot n^{-0.2}$g/KW-hr ($34 \cdot n^{-0.2}$g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/kW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NO_Xin the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$g/KW-hr ($33 \cdot n^{-0.23}$g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

(e) Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the NTE standards as indicated in §60.4212.

(f) Owners and operators of any modified or reconstructed emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in paragraphs (a) through (e) of this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

§ 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 over the entire life of the engine.

[76 FR 37969, June 28, 2011]

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?

(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(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 purchase diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

(c) [Reserved]

(d) Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder are no longer subject to the requirements of paragraph (a) of this section, and must use fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).

(e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

Other Requirements for Owners and Operators

§ 60.4208 What is the deadline for importing or installing stationary CI ICE produced in previous model years?

(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) After December 31, 2018, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600 KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.

(h) 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 (g) of this section after the dates specified in paragraphs (a) through (g) of this section.

(i) 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.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

§ 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 that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

Compliance Requirements

§ 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in §60.4201(a) through (c) and §60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and (e) and §60.4202(e) and (f) using the certification procedures required in 40 CFR part 94, subpart C, or 40 CFR part 1042, subpart C, as applicable, and must test their engines as specified in 40 CFR part 94 or 1042, as applicable.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 1039.125, 1039.130, and 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89, 40 CFR part 94 or 40 CFR part 1042 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate, but the words “stationary” must be included instead of “nonroad” or “marine” on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR parts 89, 94, 1039 or 1042 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words “and stationary” after the word “nonroad” or “marine,” as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in §60.4202 but does not meet all the

emission standards for non-emergency engines in §60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as “Fire Pump Applications Only”.

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §§60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

§ 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 do all of the following, except as permitted under paragraph (g) of this section:

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) 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.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

(d) If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

(ii) A discussion of the relationship between these parameters and $NO_X$and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit $NO_X$and PM emissions;

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

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

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

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in §60.4213.

(e) If you are an owner or operator of a modified or reconstructed stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(e) or §60.4205(f), you must demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4204(e) or §60.4205(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4212 or §60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

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

(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37970, June 28, 2011]

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 (e) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(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 nonroad 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.

(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

§ 60.4213 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 greater than or equal to 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 2)}$$

Where:

C_i= concentration of NO_Xor PM at the control device inlet,

C_o= concentration of NO_Xor PM at the control device outlet, and

R = percent reduction of NO_Xor PM emissions.

(2) You must normalize the NO_Xor PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O_2) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO_2) using the procedures described in paragraph (d)(3) of this section.

$$C_{adj} = C_d \frac{5.9}{20.9 - \% O_2} \qquad \text{(Eq. 3)}$$

Where:

C_{adj}= Calculated NO_Xor PM concentration adjusted to 15 percent O_2.

C_d= Measured concentration of NO_Xor PM, uncorrected.

5.9 = 20.9 percent O_2−15 percent O_2, the defined O_2correction value, percent.

$\%O_2$= Measured O_2concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent $O_2$and CO_2concentration is measured in lieu of O_2concentration measurement, a CO_2correction factor is needed. Calculate the CO_2correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

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

$$F_o = \frac{0.209 F_d}{F_c} \qquad \text{(Eq. 4)}$$

Where:

F_o= Fuel factor based on the ratio of O_2volume to the ultimate CO_2volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O_2, percent/100.

F_d= Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu).

F_c= Ratio of the volume of CO_2produced to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu).

(ii) Calculate the CO_2correction factor for correcting measurement data to 15 percent O_2, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 5)}$$

Where:

X_{CO2}= CO_2correction factor, percent.

5.9 = 20.9 percent O_2−15 percent O_2, the defined O_2correction value, percent.

(iii) Calculate the $NO_X$and PM gas concentrations adjusted to 15 percent O_2using CO_2as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \qquad \text{(Eq. 6)}$$

Where:

C_{adj}= Calculated NO_Xor PM concentration adjusted to 15 percent O_2.

C_d= Measured concentration of NO_Xor PM, uncorrected.

$\%CO_2$= Measured CO_2concentration, dry basis, percent.

(e) To determine compliance with the NO_Xmass per unit output emission limitation, convert the concentration of NO_Xin the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{\text{KW-hour}} \qquad \text{(Eq. 7)}$$

Where:

ER = Emission rate in grams per KW-hour.

C_d= Measured NO_Xconcentration in ppm.

1.912×10^{-3}= Conversion constant for ppm $NO_X$to grams per standard cubic meter at 25 degrees Celsius.

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

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{\text{KW-hour}} \qquad \text{(Eq. 8)}$$

Where:

ER = Emission rate in grams per KW-hour.

C_{adj}= Calculated PM concentration in grams per standard cubic meter.

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

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

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?

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year

engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

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

(ii) The address of the affected source;

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

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

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

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(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.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

Special Requirements

§ 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

(a) Stationary CI ICE with a displacement of less than 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §§60.4202 and 60.4205.

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in §60.4207.

(c) Stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the following emission standards:

(1) For engines installed prior to January 1, 2012, limit the emissions of NO_Xin the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $45 \cdot n^{-0.2}$g/KW-hr ($34 \cdot n^{-0.2}$g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NO_Xin the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$g/KW-hr ($33 \cdot n^{-0.23}$g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

§ 60.4216 What requirements must I meet for engines used in Alaska?

(a) Prior to December 1, 2010, owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder located in areas of Alaska not accessible by the FAHS should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

(b) Except as indicated in paragraph (c) of this section, manufacturers, owners and operators of stationary CI ICE with a displacement of less than 10 liters per cylinder located in areas of Alaska not accessible by the FAHS may meet the requirements of this subpart by manufacturing and installing engines meeting the requirements of 40 CFR parts 94 or 1042, as appropriate, rather than the otherwise applicable requirements of 40 CFR parts 89 and 1039, as indicated in sections §§60.4201(f) and 60.4202(g) of this subpart.

(c) Manufacturers, owners and operators of stationary CI ICE that are located in areas of Alaska not accessible by the FAHS may choose to meet the applicable emission standards for emergency engines in §60.4202 and §60.4205, and not those for non-emergency engines in §60.4201 and §60.4204, except that for 2014 model year and later non-emergency CI ICE, the owner or operator of any such engine that was not certified as meeting Tier 4 PM standards, must meet the applicable requirements for PM in §60.4201 and §60.4204 or install a PM emission control device that achieves PM emission reductions of 85 percent, or 60 percent for engines with a displacement of greater than or equal to 30 liters per cylinder, compared to engine-out emissions.

(d) The provisions of §60.4207 do not apply to owners and operators of pre-2014 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS.

(e) The provisions of §60.4208(a) do not apply to owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS until after December 31, 2009.

(f) The provisions of this section and §60.4207 do not prevent owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS from using fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel. The sulfur content of the used lubricating oil must be less than 200 parts per million. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 CFR 279.11.

[76 FR 37971, June 28, 2011]

§ 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

Owners and operators of stationary CI ICE that do not use diesel fuel may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4204 or §60.4205 using such fuels and that use of such fuel is appropriate and reasonably necessary, considering cost, energy, technical feasibility, human health and environmental, and other factors, for the operation of the engine.

[76 FR 37972, June 28, 2011]

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.

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for certified emissions 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).

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.

Date of manufacture means one of the following things:

(1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.

(2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.

(3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

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.

Freshly manufactured engine means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.

Installed means the engine is placed and secured at the location where it is intended to be operated.

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 the calendar year in which an engine is manufactured (see “date of manufacture”), except as follows:

(1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see “date of manufacture”), if the annual new model production period is different than the calendar year and includes 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.

(2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see “date of manufacture”).

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 nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, 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.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011]

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 + NO_X	HC	NO_X	CO	PM
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)			9.2 (6.9)		
56≤KW<75 (75≤HP<100)			9.2 (6.9)		
75≤KW<130 (100≤HP<175)			9.2 (6.9)		
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤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 2 to Subpart IIII of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder

[As stated in §60.4202(a)(1), you must comply with the following emission standards]

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
	Model year(s)	NO_X+ NMHC	CO	PM
KW<8 (HP<11)	2008+	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2008+	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2008+	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

Table 3 to Subpart IIII of Part 60—Certification Requirements for Stationary Fire Pump Engines

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)[1]
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

[1]Manufacturers of fire pump stationary CI ICE with a maximum engine power greater than or equal to 37 kW (50 HP) and less than 450 KW (600 HP) and a rated speed of greater than 2,650 revolutions per minute (rpm) are not required to certify such engines until three model years following the model year indicated in this Table 3 for engines in the applicable engine power category.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011]

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 + NO_X	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≤KW<19 (11≤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≤KW<37 (25≤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≤KW<56 (50≤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≤KW<75 (75≤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≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)

Maximum engine power	Model year(s)	NMHC + NO_X	CO	PM
	2010+[2]	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤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≤KW<450 (300≤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≤KW≤560 (600≤HP≤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 ICE 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≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in §60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed[1]	Torque (percent)[2]	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

[1]Engine speed: ±2 percent of point.

[2]Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

[As stated in §60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:]

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary CI internal combustion engine with a displacement of ≥30 liters per cylinder	a. Reduce NO_Xemissions by 90 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O_2at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurements for NO_Xconcentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurements for NO_Xconcentration.
		iv. Measure NO_Xat the inlet and outlet of the control device	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or	(d) NO_Xconcentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-

For each	Complying with the requirement to	You must	Using	According to the following requirements
			ASTM D 6348–03 (incorporated by reference, see §60.17)	hour or longer runs.
	b. Limit the concentration of NO_X in the stationary CI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2 concentration of the stationary internal combustion engine exhaust at the sampling port location; and,	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2 concentration must be made at the same time as the measurement for NO_X concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurement for NO_X concentration.
		iv. Measure NO_X at the exhaust of the stationary internal combustion engine	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(d) NO_X concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	c. Reduce PM emissions by 60 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O_2 at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for PM concentration.

For each	Complying with the requirement to	You must	Using	According to the following requirements
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet of the control device	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2concentration of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the exhaust of the stationary internal combustion engine	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

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 applies 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

Attachment F

Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Source: 69 FR 33506, June 15, 2004, unless otherwise noted.

What This Subpart Covers

§ 63.6580 What is the purpose of subpart ZZZZ?

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

[73 FR 3603, Jan. 18, 2008]

§ 63.6585 Am I subject to this subpart?

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

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

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

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

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

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

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008]

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

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) *Existing stationary RICE.*

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

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

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

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

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

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

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

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

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

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

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

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

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

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(vi) Existing residential emergency stationary RICE located at an area source of HAP emissions;

(vii) Existing commercial emergency stationary RICE located at an area source of HAP emissions; or

(viii) Existing institutional emergency stationary RICE located at an area source of HAP emissions.

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010]

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

(a) *Affected sources.* (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013.

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

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

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

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

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

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

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

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

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

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

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

Emission and Operating Limitations

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

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

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

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

(c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.

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

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

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

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

§ 63.6602 What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

[75 FR 51589, Aug. 20, 2010]

§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 1b and Table 2b to this subpart that apply to you.

(b) If you own or operate an existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the Federal Aid Highway System (FAHS) you do not have to meet the numerical CO emission limitations specified in Table 2d to this subpart. Existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the FAHS must meet the management practices that are shown for stationary non-emergency CI RICE less than or equal to 300 HP in Table 2d to this subpart.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011]

§ 63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?

If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Existing non-emergency CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or at area sources in areas of Alaska not accessible by the FAHS are exempt from the requirements of this section.

[75 FR 51589, Aug. 20, 2010]

General Compliance Requirements

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

(a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[75 FR 9675, Mar. 3, 2010]

Testing and Initial Compliance Requirements

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

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

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

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

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

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

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

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

(5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3605, Jan. 18, 2008]

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

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

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 51589, Aug. 20, 2010]

§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

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

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.

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

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

[75 FR 9676, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

§ 63.6615 When must I conduct subsequent performance tests?

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

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

(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again.

(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

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

Where:

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

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

R = percent reduction of CO or formaldehyde emissions.

(2) You must normalize the carbon monoxide (CO) or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO_2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO_2concentration is measured in lieu of oxygen concentration measurement, a CO_2correction factor is needed. Calculate the CO_2correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

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

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

Where:

F_o= Fuel factor based on the ratio of oxygen volume to the ultimate CO_2volume produced by the fuel at zero percent excess air.

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

F_d= Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu).

F_c= Ratio of the volume of CO_2produced to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu).

(ii) Calculate the CO_2correction factor for correcting measurement data to 15 percent oxygen, as follows:

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

Where:

X_{co2}= CO_2correction factor, percent.

5.9 = 20.9 percent O_2−15 percent O_2, the defined O_2correction value, percent.

(iii) Calculate the $NO_X$and SO_2gas concentrations adjusted to 15 percent O_2using CO_2as follows:

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

Where:

$\%CO_2$= Measured CO_2concentration measured, dry basis, percent.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010]

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

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either oxygen or CO_2at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of this section.

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

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

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

(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO_2concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (5) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.

(1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in §63.8(d). As specified in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.

(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

(ii) Sampling interface (*e.g.,* thermocouple) location such that the monitoring system will provide representative measurements;

(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;

(iv) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and

(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).

(2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.

(3) The CPMS must collect data at least once every 15 minutes (see also §63.6635).

(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

(5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.

(6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

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

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

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;

(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;

(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;

(6) An existing non-emergency, non-black start landfill or digester gas stationary RICE located at an area source of HAP emissions;

(7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and

(10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (g)(2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska not accessible by the FAHS do not have to meet the requirements of paragraph (g) of this section.

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011]

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

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

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

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

Continuous Compliance Requirements

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

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

(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

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

[69 FR 33506, June 15, 2004, as amended at 76 FR 12867, Mar. 9, 2011]

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

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

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

(c) [Reserved]

(d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period)

are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).

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

(f) *Requirements for emergency stationary RICE.* (1) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) You may operate your emergency stationary RICE 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. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.

(iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency

situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.

(2) If you own or operate an emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed prior to June 12, 2006, you must operate the engine according to the conditions described in paragraphs (f)(2)(i) through (iii) of this section. If you do not operate the engine according to the requirements in paragraphs (f)(2)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance.

(iii) You may operate your emergency stationary RICE for an additional 50 hours per year in non-emergency situations. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

Notifications, Reports, and Records

§ 63.6645 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;

(1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

(2) An existing stationary RICE located at an area source of HAP emissions.

(3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

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

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

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

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

(f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

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

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

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

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

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

§ 63.6650 What reports must I submit and when?

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

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

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

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

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

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

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

(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.

(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.

(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.

(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.

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

(1) Company name and address.

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

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

(4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(9) A brief description of the stationary RICE.

(10) A brief description of the CMS.

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

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

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required

information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

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

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

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

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

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010]

§ 63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

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

(2) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

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

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

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

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

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

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

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

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

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010]

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

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

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

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

Other Requirements and Information

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

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

[75 FR 9678, Mar. 3, 2010]

§ 63.6670 Who implements and enforces this subpart?

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

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

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

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

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

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

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

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

§ 63.6675 What definitions apply to this subpart?

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

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

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

Black start engine means an engine whose only purpose is to start up a combustion turbine.

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

Commercial emergency stationary RICE means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

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

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

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

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

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

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.

(4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

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

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties (*e.g.* biodiesel) that is suitable for use in compression ignition engines.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO_2.

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

Emergency stationary RICE means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, *etc.* Stationary RICE used for peak shaving are not considered emergency stationary RICE. Stationary RICE used to supply power to an electric grid or that supply non-emergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under §63.6640(f). All emergency stationary RICE must comply with the requirements specified in §63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in §63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

Engine startup means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

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

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

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

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

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

Institutional emergency stationary RICE means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.

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

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO_2.

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

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

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

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

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

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

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

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

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

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

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

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NO_X) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_X, CO, and volatile organic compounds (VOC) into CO_2, nitrogen, and water.

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

not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

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

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

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

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

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

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

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8.

Residential emergency stationary RICE means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.

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

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

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

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

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

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

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

Subpart means 40 CFR part 63, subpart ZZZZ.

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

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

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 76 FR 12867, Mar. 9, 2011]

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

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9679, Mar. 3, 2010, as amended at 75 FR 51592, Aug. 20, 2010]

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

As stated in §§63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions and existing 4SRB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

For each . . .	You must meet the following operating limitation . . .
1. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O2 and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O2 and using NSCR.	a. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and b. Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.
2. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O2 and not using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O2 and not using NSCR.	Comply with any operating limitations approved by the Administrator.

[76 FR 12867, Mar. 9, 2011]

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

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O_2. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O_2until June 15, 2007	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O_2	
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O_2	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

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

As stated in §§63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and compression ignition stationary RICE located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; existing compression ignition stationary RICE >500 HP; and existing 4SLB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

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

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.

[75 FR 51593, Aug. 20, 2010, as amended at 76 FR 12867, Mar. 9, 2011]

Table 2cto Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[3]

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	first, and replace as necessary.[3]	
2. Non-Emergency, non-black start stationary CI RICE <100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[2]	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
3. Non-Emergency, non-black start CI stationary RICE 100≤HP≤300 HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O_2	
4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2]	
	b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[2]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[2]	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O_2	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O_2	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O_2	
12. Non-emergency, non-black start landfill or digester gas-fired stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O_2	

[1]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[2]Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.

[3]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 51593, Aug. 20, 2010]

Table 2dto Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[1]	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
2. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1] b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 4,320 hours of operation or annually,	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	whichever comes first; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 93 percent or more.	
9. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
10. Non-emergency, non-black start 4SRB stationary RICE >500 HP	a. Limit concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd at 15 percent O_2; or	
	b. Reduce formaldehyde emissions by 76 percent or more.	
11. Non-emergency, non-black start landfill or digester gas-fired stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

[1]Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

[2]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[75 FR 51595, Aug. 20, 2010]

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

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

For each . . .	Complying with the requirement to . . .	You must . . .
1. New or reconstructed 2SLB stationary RICE with a brake horsepower >500 located at major sources; new or reconstructed 4SLB stationary RICE with a brake horsepower ≥250 located at major sources; and new or reconstructed CI stationary RICE with a brake horsepower >500 located at major sources	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually.[1]
2. 4SRB stationary RICE with a brake horsepower ≥5,000 located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually.[1]
3. Stationary RICE with a brake horsepower >500 located at major sources and new or reconstructed 4SLB stationary RICE with a brake horsepower 250≤HP≤500 located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually.[1]
4. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are not limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower >500 that are operated more than 24 hours per calendar year that are not limited use stationary RICE	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs. or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower >500 that are operated more than 24 hours per calendar year and are limited use stationary RICE	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs. or 5 years, whichever comes first.

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

[75 FR 51596, Aug. 20, 2010]

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

As stated in §§63.6610, 63.6611, 63.6612, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and	a. Reduce CO emissions	i. Measure the O_2 at the inlet and outlet	(1) Portable CO and O_2 analyzer	(a) Using ASTM D6522–00 (2005)[a](incorporated by

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
CI stationary RICE		of the control device; and		reference, see §63.14). Measurements to determine O_2must be made at the same time as the measurements for CO concentration.
		ii. Measure the CO at the inlet and the outlet of the control device	(1) Portable CO and O_2analyzer	(a) Using ASTM D6522–00 (2005)[ab](incorporated by reference, see §63.14) or Method 10 of 40 CFR appendix A. The CO concentration must be at 15 percent O_2, dry basis.
2. 4SRB stationary RICE	a. Reduce formaldehyde emissions	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O_2at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00m (2005)	(a) Measurements to determine O_2concentration must be made at the same time as the measurements for formaldehyde concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the inlet and the outlet of the control device	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[c]provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
3. Stationary RICE	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) If using a control device, the sampling site must be located at the outlet of the control device.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		ii. Determine the O_2concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00 (2005)	(a) Measurements to determine O_2concentration must be made at the same time and location as the measurements for formaldehyde concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[c]provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. Measure CO at the exhaust of the stationary RICE	(1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522–00 (2005),[a]Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03	(a) CO Concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour longer runs.

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

[b]You may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03.

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

[75 FR 51597, Aug. 20, 2010]

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

As stated in §§63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if. . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions and not using oxidation catalyst	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more	a. Limit the concentration of CO, and not using oxidation catalyst	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if. . .
than 24 hours per calendar year		Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
5. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2or CO_2at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Limit the concentration of CO, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2or CO_2at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average concentration of CO calculated using §63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if. . .
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
9. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Limit the concentration of formaldehyde and not using NSCR	i. The average formaldehyde concentration determined from the initial performance test is less than or equal to the formaldehyde emission limitation; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
10. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
11. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE	a. Limit the concentration of formaldehyde in the stationary RICE	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if. . .
250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP	exhaust and not using oxidation catalyst or NSCR	formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Reduce CO or formaldehyde emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.
13. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.

[76 FR 12867, Mar. 9, 2011]

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

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved;[a] and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		across the catalyst is within the operating limitation established during the performance test.
2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved;[a]and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP, existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS	i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction or concentration of CO emissions according to §63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period, or that the emission remain at or below the CO concentration limit; and iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		operating limitation established during the performance test.
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved.[a]
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250 ≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit;[a]and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250 ≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit;[a]and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency landfill or digester gas stationary SI RICE located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE	a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		operating limitation established during the performance test.
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE	a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and not using oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
12. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year	a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using an oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
13. Existing limited use CI stationary	a. Reduce CO or	i. Conducting performance tests every

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year	formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and not using an oxidation catalyst or NSCR	8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

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

[76 FR 12870, Mar. 9, 2011]

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

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

For each ...	You must submit a ...	The report must contain ...	You must submit the report ...
1. Existing non-emergency, non-black start stationary RICE 100≤HP≤500 located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located	Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or b. If you had a deviation from any	

For each ...	You must submit a ...	The report must contain ...	You must submit the report ...
at an area source of HAP and operated more than 24 hours per calendar year; new or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP		emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4) i. Semiannually according to the requirements in §63.6650(b)(1)–(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according to the requirements in §63.6650(b)(6)–(9) for engines that are limited use stationary RICE subject to numerical emission limitations. i. Semiannually according to the requirements in §63.6650(b). i. Semiannually according to the requirements in §63.6650(b).	
2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Report	a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and i. Annually, according to the requirements in §63.6650.	
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and i. See item 2.a.i.	
		c. Any problems or errors suspected with the meters. i. See item 2.a.i.	

[75 FR 51603, Aug. 20, 2010]

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

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

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.1	General applicability of the General Provisions	Yes.	
§63.2	Definitions	Yes	Additional terms defined in §63.6675.
§63.3	Units and abbreviations	Yes.	
§63.4	Prohibited activities and circumvention	Yes.	
§63.5	Construction and reconstruction	Yes.	
§63.6(a)	Applicability	Yes.	
§63.6(b)(1)–(4)	Compliance dates for new and reconstructed sources	Yes.	
§63.6(b)(5)	Notification	Yes.	
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§63.6(c)(1)–(2)	Compliance dates for existing sources	Yes.	
§63.6(c)(3)–(4)	[Reserved]		
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§63.6(d)	[Reserved]		
§63.6(e)	Operation and maintenance	No.	
§63.6(f)(1)	Applicability of standards	No.	
§63.6(f)(2)	Methods for determining compliance	Yes.	
§63.6(f)(3)	Finding of compliance	Yes.	
§63.6(g)(1)–(3)	Use of alternate standard	Yes.	
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures and criteria	Yes.	
§63.6(j)	Presidential compliance exemption	Yes.	
§63.7(a)(1)–(2)	Performance test dates	Yes	Subpart ZZZZ contains

General provisions citation	Subject of citation	Applies to subpart	Explanation
			performance test dates at §§63.6610, 63.6611, and 63.6612.
§63.7(a)(3)	CAA section 114 authority	Yes.	
§63.7(b)(1)	Notification of performance test	Yes	Except that §63.7(b)(1) only applies as specified in §63.6645.
§63.7(b)(2)	Notification of rescheduling	Yes	Except that §63.7(b)(2) only applies as specified in §63.6645.
§63.7(c)	Quality assurance/test plan	Yes	Except that §63.7(c) only applies as specified in §63.6645.
§63.7(d)	Testing facilities	Yes.	
§63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes.	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.	
§63.7(f)	Alternative test method provisions	Yes.	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§63.7(h)	Waiver of tests	Yes.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at §63.6625.
§63.8(a)(2)	Performance specifications	Yes.	
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring for control devices	No.	
§63.8(b)(1)	Monitoring	Yes.	
§63.8(b)(2)–(3)	Multiple effluents and multiple monitoring systems	Yes.	
§63.8(c)(1)	Monitoring system operation and maintenance	Yes.	
§63.8(c)(1)(i)	Routine and predictable SSM	Yes.	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown	Yes.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
	Malfunction Plan		
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	Yes.	
§63.8(c)(2)–(3)	Monitoring system installation	Yes.	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§63.8(c)(6)–(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§63.8(d)	CMS quality control	Yes.	
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.
		Except that §63.8(e) only applies as specified in §63.6645.	
§63.8(f)(1)–(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.6645.
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.6645.
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6635 and 63.6640.
§63.9(a)	Applicability and State delegation of notification requirements	Yes.	
§63.9(b)(1)–(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.
		Except that §63.9(b) only applies as specified in §63.6645.	
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that §63.9(g) only applies as specified in §63.6645.	
§63.9(h)(1)–(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes.	
§63.9(j)	Change in previous information	Yes.	
§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§63.10(b)(1)	Record retention	Yes.	
§63.10(b)(2)(i)–(v)	Records related to SSM	No.	
§63.10(b)(2)(vi)–(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§63.10(b)(3)	Records of applicability determination	Yes.	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)–(4) and (9) are reserved.

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

[75 FR 9688, Mar. 3, 2010]

Indiana Department of Environmental Management
Office of Air Quality

Attachment G

Subpart BBBBBB—National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities

Source: 73 FR 1933, Jan. 10, 2008, unless otherwise noted.

What This Subpart Covers

§ 63.11080 What is the purpose of this subpart?

This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from area source gasoline distribution bulk terminals, bulk plants, and pipeline facilities. This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices.

§ 63.11081 Am I subject to the requirements in this subpart?

(a) The affected source to which this subpart applies is each area source bulk gasoline terminal, pipeline breakout station, pipeline pumping station, and bulk gasoline plant identified in paragraphs (a)(1) through (4) of this section. You are subject to the requirements in this subpart if you own or operate one or more of the affected area sources identified in paragraphs (a)(1) through (4) of this section.

(1) A bulk gasoline terminal that is not subject to the control requirements of 40 CFR part 63, subpart R (§§63.422, 63.423, and 63.424) or 40 CFR part 63, subpart CC (§§63.646, 63.648, 63.649, and 63.650).

(2) A pipeline breakout station that is not subject to the control requirements of 40 CFR part 63, subpart R (§§63.423 and 63.424).

(3) A pipeline pumping station.

(4) A bulk gasoline plant.

(b) If you are an owner or operator of affected sources, as defined in (a)(1) through (4) of this section, you are not required to meet the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71 as a result of being subject to this subpart. However, you are still subject to the requirement to apply for and obtain a permit under 40 CFR part 70 or 40 CFR part 71 if you meet one or more of the applicability criteria found in 40 CFR 70.3(a) and (b) or 40 CFR part 71.3(a) and (b).

(c) Gasoline storage tanks that are located at affected sources identified in paragraphs (a)(1) through (a)(4) of this section, and that are used only for dispensing gasoline in a manner consistent with tanks located at a gasoline dispensing facility as defined in §63.11132, are not subject to any of the requirements in this subpart. These tanks must comply with subpart CCCCCC of this part.

(d) The loading of aviation gasoline into storage tanks at airports, and the subsequent transfer of aviation gasoline within the airport, is not subject to this subpart.

(e) The loading of gasoline into marine tank vessels at bulk facilities is not subject to this subpart.

(f) If your affected source's throughput ever exceeds an applicable throughput threshold in the definition of “bulk gasoline terminal” or in item 1 in Table 2 to this subpart, the affected source will remain subject to the requirements for sources above the threshold, even if the affected source throughput later falls below the applicable throughput threshold.

(g) For the purpose of determining gasoline throughput, as used in the definition of bulk gasoline plant and bulk gasoline terminal, the 20,000 gallons per day threshold throughput is the maximum calculated design throughout for any day, and is not an average. An enforceable State, local, or Tribal permit limitation on throughput, established prior to the applicable compliance date, may be used in lieu of the 20,000 gallons per day design capacity throughput threshold to determine whether the facility is a bulk gasoline plant or a bulk gasoline terminal.

(h) Storage tanks that are used to load gasoline into a cargo tank for the on-site redistribution of gasoline to another storage tank are subject to this subpart.

(i) For any affected source subject to the provisions of this subpart and another Federal rule, you may elect to comply only with the more stringent provisions of the applicable subparts. You must consider all provisions of the rules, including monitoring, recordkeeping, and reporting. You must identify the affected source and provisions with which you will comply in your Notification of Compliance Status required under §63.11093. You also must demonstrate in your Notification of Compliance Status that each provision with which you will comply is at least as stringent as the otherwise applicable requirements in this subpart. You are responsible for making accurate determinations concerning the more stringent provisions; noncompliance with this rule is not excused if it is later determined that your determination was in error, and, as a result, you are violating this subpart. Compliance with this rule is your responsibility, and the Notification of Compliance Status does not alter or affect that responsibility.

(j) For new or reconstructed affected sources, as specified in §63.11082(b) and (c), recordkeeping to document applicable throughput must begin upon startup of the affected source. For existing sources, as specified in §63.11082(d), recordkeeping to document applicable throughput must begin on January 10, 2008. Records required under this paragraph shall be kept for a period of 5 years.

[73 FR 1933, Jan. 10, 2008, as amended at 76 FR 4176, Jan. 24, 2011]

§ 63.11082 What parts of my affected source does this subpart cover?

(a) The emission sources to which this subpart applies are gasoline storage tanks, gasoline loading racks, vapor collection-equipped gasoline cargo tanks, and equipment components in vapor or liquid gasoline service that meet the criteria specified in Tables 1 through 3 to this subpart.

(b) An affected source is a new affected source if you commenced construction on the affected source after November 9, 2006, and you meet the applicability criteria in §63.11081 at the time you commenced operation.

(c) An affected source is reconstructed if you meet the criteria for reconstruction as defined in §63.2.

(d) An affected source is an existing affected source if it is not new or reconstructed.

§ 63.11083 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section.

(1) If you start up your affected source before January 10, 2008, you must comply with the standards in this subpart no later than January 10, 2008.

(2) If you start up your affected source after January 10, 2008, you must comply with the standards in this subpart upon startup of your affected source.

(b) If you have an existing affected source, you must comply with the standards in this subpart no later than January 10, 2011.

(c) If you have an existing affected source that becomes subject to the control requirements in this subpart because of an increase in the daily throughput, as specified in option 1 of Table 2 to this subpart, you must comply with the standards in this subpart no later than 3 years after the affected source becomes subject to the control requirements in this subpart.

[73 FR 1933, Jan. 10, 2008, as amended at 76 FR 4177, Jan. 24, 2011]

Emission Limitations and Management Practices

§ 63.11085 What are my general duties to minimize emissions?

Each owner or operator of an affected source under this subpart must comply with the requirements of paragraphs (a) and (b) of this section.

(a) You must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(b) You must keep applicable records and submit reports as specified in §63.11094(g) and §63.11095(d).

[76 FR 4177, Jan. 24, 2011]

§ 63.11086 What requirements must I meet if my facility is a bulk gasoline plant?

Each owner or operator of an affected bulk gasoline plant, as defined in §63.11100, must comply with the requirements of paragraphs (a) through (i) of this section.

(a) Except as specified in paragraph (b) of this section, you must only load gasoline into storage tanks and cargo tanks at your facility by utilizing submerged filling, as defined in §63.11100, and as specified in paragraphs (a)(1), (a)(2), or (a)(3) of this section. The applicable distances in paragraphs (a)(1) and (2) of this section shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.

(1) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the tank.

(2) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank.

(3) Submerged fill pipes not meeting the specifications of paragraphs (a)(1) or (a)(2) of this section are allowed if the owner or operator can demonstrate that the liquid level in the gasoline storage tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit.

(b) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the control requirements in paragraph (a) of this section, but must comply only with the requirements in paragraph (d) of this section.

(c) You must perform a monthly leak inspection of all equipment in gasoline service according to the requirements specified in §63.11089(a) through (d).

(d) You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

(1) Minimize gasoline spills;

(2) Clean up spills as expeditiously as practicable;

(3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

(4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

(e) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008 unless you meet the requirements in paragraph (g) of this section. The Initial Notification must contain the information specified in paragraphs (e)(1) through (4) of this section. The notification must be submitted to the applicable EPA Regional Office and the delegated State authority, as specified in §63.13.

(1) The name and address of the owner and the operator.

(2) The address (i.e., physical location) of the bulk plant.

(3) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a), (b), (c), and (d) of this section that apply to you.

(4) A brief description of the bulk plant, including the number of storage tanks in gasoline service, the capacity of each storage tank in gasoline service, and the average monthly gasoline throughput at the affected source.

(f) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in §63.13, by the compliance date specified in §63.11083 unless you meet the requirements in paragraph (g) of this section. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy and must indicate whether the source has complied with the requirements of this subpart. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (e) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (e) of this section.

(g) If, prior to January 10, 2008, you are operating in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in §63.11086(a), you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (e) or paragraph (f) of this section.

(h) You must comply with the requirements of this subpart by the applicable dates specified in §63.11083.

(i) You must keep applicable records and submit reports as specified in §63.11094(d) and (e) and §63.11095(c).

[73 FR 1933, Jan. 10, 2008, as amended at 76 FR 4177, Jan. 24, 2011]

§ 63.11087 What requirements must I meet for gasoline storage tanks if my facility is a bulk gasoline terminal, pipeline breakout station, or pipeline pumping station?

(a) You must meet each emission limit and management practice in Table 1 to this subpart that applies to your gasoline storage tank.

(b) You must comply with the requirements of this subpart by the applicable dates specified in §63.11083, except that storage vessels equipped with floating roofs and not meeting the requirements of paragraph (a) of this section must be in compliance at the first degassing and cleaning activity after January 10, 2011 or by January 10, 2018, whichever is first.

(c) You must comply with the applicable testing and monitoring requirements specified in §63.11092(e).

(d) You must submit the applicable notifications as required under §63.11093.

(e) You must keep records and submit reports as specified in §§63.11094 and 63.11095.

(f) If your gasoline storage tank is subject to, and complies with, the control requirements of 40 CFR part 60, subpart Kb of this chapter, your storage tank will be deemed in compliance with this section. You must report this determination in the Notification of Compliance Status report under §63.11093(b).

§ 63.11088 What requirements must I meet for gasoline loading racks if my facility is a bulk gasoline terminal, pipeline breakout station, or pipeline pumping station?

(a) You must meet each emission limit and management practice in Table 2 to this subpart that applies to you.

(b) As an alternative for railcar cargo tanks to the requirements specified in Table 2 to this subpart, you may comply with the requirements specified in §63.422(e).

(c) You must comply with the requirements of this subpart by the applicable dates specified in §63.11083.

(d) You must comply with the applicable testing and monitoring requirements specified in §63.11092.

(e) You must submit the applicable notifications as required under §63.11093.

(f) You must keep records and submit reports as specified in §§63.11094 and 63.11095.

§ 63.11089 What requirements must I meet for equipment leak inspections if my facility is a bulk gasoline terminal, bulk plant, pipeline breakout station, or pipeline pumping station?

(a) Each owner or operator of a bulk gasoline terminal, bulk plant, pipeline breakout station, or pipeline pumping station subject to the provisions of this subpart shall perform a monthly leak inspection of all equipment in gasoline service, as defined in §63.11100. For this inspection, detection methods incorporating sight, sound, and smell are acceptable.

(b) A log book shall be used and shall be signed by the owner or operator at the completion of each inspection. A section of the log book shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility.

(c) Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 calendar days after the leak is detected. Repair or replacement of leaking equipment shall be completed within 15 calendar days after detection of each leak, except as provided in paragraph (d) of this section.

(d) Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semiannual report specified in §63.11095(b), the reason(s) why the repair was not feasible and the date each repair was completed.

(e) You must comply with the requirements of this subpart by the applicable dates specified in §63.11083.

(f) You must submit the applicable notifications as required under §63.11093.

(g) You must keep records and submit reports as specified in §§63.11094 and 63.11095.

Testing and Monitoring Requirements

§ 63.11092 What testing and monitoring requirements must I meet?

(a) Each owner or operator of a bulk gasoline terminal subject to the emission standard in item 1(b) of Table 2 to this subpart must comply with the requirements in paragraphs (a) through (d) of this section.

(1) Conduct a performance test on the vapor processing and collection systems according to either paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.

(i) Use the test methods and procedures in §60.503 of this chapter, except a reading of 500 parts per million shall be used to determine the level of leaks to be repaired under §60.503(b) of this chapter.

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in §63.7(f).

(2) If you are operating your gasoline loading rack in compliance with an enforceable State, local, or tribal rule or permit that requires your loading rack to meet an emission limit of 80 milligrams (mg), or less, per liter of gasoline loaded (mg/l), you may submit a statement by a responsible official of your facility certifying the compliance status of your loading rack in lieu of the test required under paragraph (a)(1) of this section.

(3) If you have conducted performance testing on the vapor processing and collection systems within 5 years prior to January 10, 2008, and the test is for the affected facility and is representative of current or anticipated operating processes and conditions, you may submit the results of such testing in lieu of the test required under paragraph (a)(1) of this section, provided the testing was conducted using the test

methods and procedures in §60.503 of this chapter. Should the Administrator deem the prior test data unacceptable, the facility is still required to meet the requirement to conduct an initial performance test within 180 days of the compliance date specified in §63.11083; thus, previous test reports should be submitted as soon as possible after January 10, 2008.

(4) The performance test requirements of §63.11092(a) do not apply to flares defined in §63.11100 and meeting the flare requirements in §63.11(b). The owner or operator shall demonstrate that the flare and associated vapor collection system is in compliance with the requirements in §63.11(b) and 40 CFR 60.503(a), (b), and (d).

(b) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall install, calibrate, certify, operate, and maintain, according to the manufacturer's specifications, a continuous monitoring system (CMS) while gasoline vapors are displaced to the vapor processor systems, as specified in paragraphs (b)(1) through (5) of this section. For each facility conducting a performance test under paragraph (a)(1) of this section, and for each facility utilizing the provisions of paragraphs (a)(2) or (a)(3) of this section, the CMS must be installed by January 10, 2011.

(1) For each performance test conducted under paragraph (a)(1) of this section, the owner or operator shall determine a monitored operating parameter value for the vapor processing system using the procedures specified in paragraphs (b)(1)(i) through (iv) of this section. During the performance test, continuously record the operating parameter as specified under paragraphs (b)(1)(i) through (iv) of this section.

(i) Where a carbon adsorption system is used, the owner or operator shall monitor the operation of the system as specified in paragraphs (b)(1)(i)(A) or (B) of this section.

(A) A continuous emissions monitoring system (CEMS) capable of measuring organic compound concentration shall be installed in the exhaust air stream.

(B) As an alternative to paragraph (b)(1)(i)(A) of this section, you may choose to meet the requirements listed in paragraph (b)(1)(i)(B)(*1*) and (*2*) of this section.

(*1*) Carbon adsorption devices shall be monitored as specified in paragraphs (b)(1)(i)(B)(*1*)(*i*),(*ii*), and (*iii*) of this section.

(*i*) Vacuum level shall be monitored using a pressure transmitter installed in the vacuum pump suction line, with the measurements displayed on a gauge that can be visually observed. Each carbon bed shall be observed during one complete regeneration cycle on each day of operation of the loading rack to determine the maximum vacuum level achieved.

(*ii*) Conduct annual testing of the carbon activity for the carbon in each carbon bed. Carbon activity shall be tested in accordance with the butane working capacity test of the American Society for Testing and Materials (ASTM) Method D 5228–92 (incorporated by reference, see §63.14), or by another suitable procedure as recommended by the manufacturer.

(*iii*) Conduct monthly measurements of the carbon bed outlet volatile organic compounds (VOC) concentration over the last 5 minutes of an adsorption cycle for each carbon bed, documenting the highest measured VOC concentration. Measurements shall be made using a portable analyzer, or a permanently mounted analyzer, in accordance with 40 CFR part 60, Appendix A–7, EPA Method 21 for open-ended lines.

(*2*) Develop and submit to the Administrator a monitoring and inspection plan that describes the owner or operator's approach for meeting the requirements in paragraphs (b)(1)(i)(B)(*2*)(*i*) through (*v*) of this section.

(*i*) The lowest maximum required vacuum level and duration needed to assure regeneration of the carbon beds shall be determined by an engineering analysis or from the manufacturer's recommendation and shall be documented in the monitoring and inspection plan.

(*ii*) The owner or operator shall verify, during each day of operation of the loading rack, the proper valve sequencing, cycle time, gasoline flow, purge air flow, and operating temperatures. Verification shall be through visual observation, or through an automated alarm or shutdown system that monitors system operation. A manual or electronic record of the start and end of a shutdown event may be used.

(*iii*) The owner or operator shall perform semi-annual preventive maintenance inspections of the carbon adsorption system, including the automated alarm or shutdown system for those units so equipped, according to the recommendations of the manufacturer of the system.

(*iv*) The monitoring plan developed under paragraph (*2*) of this section shall specify conditions that would be considered malfunctions of the carbon adsorption system during the inspections or automated monitoring performed under paragraphs (b)(1)(i)(B)(*2*)(*i*) through (*iii*) of this section, describe specific corrective actions that will be taken to correct any malfunction, and define what the owner or operator would consider to be a timely repair for each potential malfunction.

(*v*) The owner or operator shall document the maximum vacuum level observed on each carbon bed from each daily inspection and the maximum VOC concentration observed from each carbon bed on each monthly inspection as well as any system malfunction, as defined in the monitoring and inspection plan, and any activation of the automated alarm or shutdown system with a written entry into a log book or other permanent form of record. Such record shall also include a description of the corrective action taken and whether such corrective actions were taken in a timely manner, as defined in the monitoring and inspection plan, as well as an estimate of the amount of gasoline loaded during the period of the malfunction.

(ii) Where a refrigeration condenser system is used, a continuous parameter monitoring system (CPMS) capable of measuring temperature shall be installed immediately downstream from the outlet to the condenser section. Alternatively, a CEMS capable of measuring organic compound concentration may be installed in the exhaust air stream.

(iii) Where a thermal oxidation system other than a flare is used, the owner or operator shall monitor the operation of the system as specified in paragraphs (b)(1)(iii)(A) or (B) of this section.

(A) A CPMS capable of measuring temperature shall be installed in the firebox or in the ductwork immediately downstream from the firebox in a position before any substantial heat exchange occurs.

(B) As an alternative to paragraph (b)(1)(iii)(A) of this section, you may choose to meet the requirements listed in paragraphs (b)(1)(iii)(B)(*1*) and (*2*) of this section.

(*1*) The presence of a thermal oxidation system pilot flame shall be monitored using a heat-sensing device, such as an ultraviolet beam sensor or a thermocouple, installed in proximity of the pilot light, to indicate the presence of a flame. The heat-sensing device shall send a positive parameter value to indicate that the pilot flame is on, or a negative parameter value to indicate that the pilot flame is off.

(*2*) Develop and submit to the Administrator a monitoring and inspection plan that describes the owner or operator's approach for meeting the requirements in paragraphs (b)(1)(iii)(B)(*2*)(*i*) through (*v*) of this section.

(*i*) The thermal oxidation system shall be equipped to automatically prevent gasoline loading operations from beginning at any time that the pilot flame is absent.

(*ii*) The owner or operator shall verify, during each day of operation of the loading rack, the proper operation of the assist-air blower and the vapor line valve. Verification shall be through visual observation, or through an automated alarm or shutdown system that monitors system operation. A manual or electronic record of the start and end of a shutdown event may be used.

(*iii*) The owner or operator shall perform semi-annual preventive maintenance inspections of the thermal oxidation system, including the automated alarm or shutdown system for those units so equipped, according to the recommendations of the manufacturer of the system.

(*iv*) The monitoring plan developed under paragraph (*2*) of this section shall specify conditions that would be considered malfunctions of the thermal oxidation system during the inspections or automated monitoring performed under paragraphs (b)(1)(iii)(B)(*2*)(*ii*) and (*iii*) of this section, describe specific corrective actions that will be taken to correct any malfunction, and define what the owner or operator would consider to be a timely repair for each potential malfunction.

(*v*) The owner or operator shall document any system malfunction, as defined in the monitoring and inspection plan, and any activation of the automated alarm or shutdown system with a written entry into a log book or other permanent form of record. Such record shall also include a description of the corrective action taken and whether such corrective actions were taken in a timely manner, as defined in the monitoring and inspection plan, as well as an estimate of the amount of gasoline loaded during the period of the malfunction.

(iv) Monitoring an alternative operating parameter or a parameter of a vapor processing system other than those listed in paragraphs (b)(1)(i) through (iii) of this section will be allowed upon demonstrating to the Administrator's satisfaction that the alternative parameter demonstrates continuous compliance with the emission standard in §63.11088(a).

(2) Where a flare meeting the requirements in §63.11(b) is used, a heat-sensing device, such as an ultraviolet beam sensor or a thermocouple, must be installed in proximity to the pilot light to indicate the presence of a flame.

(3) Determine an operating parameter value based on the parameter data monitored during the performance test, supplemented by engineering assessments and the manufacturer's recommendations.

(4) Provide for the Administrator's approval the rationale for the selected operating parameter value, monitoring frequency, and averaging time, including data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the emission standard in §63.11088(a).

(5) If you have chosen to comply with the performance testing alternatives provided under paragraph (a)(2) or paragraph (a)(3) of this section, the monitored operating parameter value may be determined according to the provisions in paragraph (b)(5)(i) or paragraph (b)(5)(ii) of this section.

(i) Monitor an operating parameter that has been approved by the Administrator and is specified in your facility's current enforceable operating permit. At the time that the Administrator requires a new

performance test, you must determine the monitored operating parameter value according to the requirements specified in paragraph (b) of this section.

(ii) Determine an operating parameter value based on engineering assessment and the manufacturer's recommendation and submit the information specified in paragraph (b)(4) of this section for approval by the Administrator. At the time that the Administrator requires a new performance test, you must determine the monitored operating parameter value according to the requirements specified in paragraph (b) of this section.

(c) For performance tests performed after the initial test required under paragraph (a) of this section, the owner or operator shall document the reasons for any change in the operating parameter value since the previous performance test.

(d) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall comply with the requirements in paragraphs (d)(1) through (4) of this section.

(1) Operate the vapor processing system in a manner not to exceed or not to go below, as appropriate, the operating parameter value for the parameters described in paragraph (b)(1) of this section.

(2) In cases where an alternative parameter pursuant to paragraph (b)(1)(iv) or paragraph (b)(5)(i) of this section is approved, each owner or operator shall operate the vapor processing system in a manner not to exceed or not to go below, as appropriate, the alternative operating parameter value.

(3) Operation of the vapor processing system in a manner exceeding or going below the operating parameter value, as appropriate, shall constitute a violation of the emission standard in §63.11088(a), except as specified in paragraph (d)(4) of this section.

(4) For the monitoring and inspection, as required under paragraphs (b)(1)(i)(B)(*2*) and (b)(1)(iii)(B)(*2*) of this section, malfunctions that are discovered shall not constitute a violation of the emission standard in §63.11088(a) if corrective actions as described in the monitoring and inspection plan are followed. The owner or operator must:

(i) Initiate corrective action to determine the cause of the problem within 1 hour;

(ii) Initiate corrective action to fix the problem within 24 hours;

(iii) Complete all corrective actions needed to fix the problem as soon as practicable consistent with good air pollution control practices for minimizing emissions;

(iv) Minimize periods of start-up, shutdown, or malfunction; and

(v) Take any necessary corrective actions to restore normal operation and prevent the recurrence of the cause of the problem.

(e) Each owner or operator subject to the emission standard in §63.11087 for gasoline storage tanks shall comply with the requirements in paragraphs (e)(1) through (3) of this section.

(1) If your gasoline storage tank is equipped with an internal floating roof, you must perform inspections of the floating roof system according to the requirements of §60.113b(a) if you are complying with option 2(b) in Table 1 to this subpart, or according to the requirements of §63.1063(c)(1) if you are complying with option 2(d) in Table 1 to this subpart.

(2) If your gasoline storage tank is equipped with an external floating roof, you must perform inspections of the floating roof system according to the requirements of §60.113b(b) if you are complying with option 2(c) in Table 1 to this subpart, or according to the requirements of §63.1063(c)(2) if you are complying with option 2(d) in Table 1 to this subpart.

(3) If your gasoline storage tank is equipped with a closed vent system and control device, you must conduct a performance test and determine a monitored operating parameter value in accordance with the requirements in paragraphs (a) through (d) of this section, except that the applicable level of control specified in paragraph (a)(2) of this section shall be a 95-percent reduction in inlet total organic compounds (TOC) levels rather than 80 mg/l of gasoline loaded.

(f) The annual certification test for gasoline cargo tanks shall consist of the test methods specified in paragraphs (f)(1) or (f)(2) of this section. Affected facilities that are subject to subpart XX of 40 CFR part 60 may elect, after notification to the subpart XX delegated authority, to comply with paragraphs (f)(1) and (2) of this section.

(1) *EPA Method 27, Appendix A–8, 40 CFR part 60.* Conduct the test using a time period (t) for the pressure and vacuum tests of 5 minutes. The initial pressure (P_i) for the pressure test shall be 460 millimeters (mm) of water (18 inches of water), gauge. The initial vacuum (V_i) for the vacuum test shall be 150 mm of water (6 inches of water), gauge. The maximum allowable pressure and vacuum changes (Δ p, Δ v) for all affected gasoline cargo tanks is 3 inches of water, or less, in 5 minutes.

(2) *Railcar bubble leak test procedures.* As an alternative to the annual certification test required under paragraph (1) of this section for certification leakage testing of gasoline cargo tanks, the owner or operator may comply with paragraphs (f)(2)(i) and (ii) of this section for railcar cargo tanks, provided the railcar cargo tank meets the requirement in paragraph (f)(2)(iii) of this section.

(i) Comply with the requirements of 49 CFR 173.31(d), 49 CFR 179.7, 49 CFR 180.509, and 49 CFR 180.511 for the periodic testing of railcar cargo tanks.

(ii) The leakage pressure test procedure required under 49 CFR 180.509(j) and used to show no indication of leakage under 49 CFR 180.511(f) shall be ASTM E 515–95, BS EN 1593:1999, or another bubble leak test procedure meeting the requirements in 49 CFR 179.7, 49 CFR 180.505, and 49 CFR 180.509.

(iii) The alternative requirements in this paragraph (f)(2) may not be used for any railcar cargo tank that collects gasoline vapors from a vapor balance system and the system complies with a Federal, State, local, or tribal rule or permit. A vapor balance system is a piping and collection system designed to collect gasoline vapors displaced from a storage vessel, barge, or other container being loaded, and routes the displaced gasoline vapors into the railcar cargo tank from which liquid gasoline is being unloaded.

(g) *Conduct of performance tests.* Performance tests conducted for this subpart shall be conducted under such conditions as the Administrator specifies to the owner or operator, based on representative performance (*i.e.,* performance based on normal operating conditions) of the affected source. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

[73 FR 1933, Jan. 10, 2008 as amended at 73 FR 12276, Mar. 7, 2008; 76 FR 4177, Jan. 24, 2011]

Notifications, Records, and Reports

§ 63.11093 What notifications must I submit and when?

(a) Each owner or operator of an affected source under this subpart must submit an Initial Notification as specified in §63.9(b). If your facility is in compliance with the requirements of this subpart at the time the Initial Notification is due, the Notification of Compliance Status required under paragraph (b) of this section may be submitted in lieu of the Initial Notification.

(b) Each owner or operator of an affected source under this subpart must submit a Notification of Compliance Status as specified in §63.9(h). The Notification of Compliance Status must specify which of the compliance options included in Table 1 to this subpart is used to comply with this subpart.

(c) Each owner or operator of an affected bulk gasoline terminal under this subpart must submit a Notification of Performance Test, as specified in §63.9(e), prior to initiating testing required by §63.11092(a) or §63.11092(b).

(d) Each owner or operator of any affected source under this subpart must submit additional notifications specified in §63.9, as applicable.

§ 63.11094 What are my recordkeeping requirements?

(a) Each owner or operator of a bulk gasoline terminal or pipeline breakout station whose storage vessels are subject to the provisions of this subpart shall keep records as specified in §60.115b of this chapter if you are complying with options 2(a), 2(b), or 2(c) in Table 1 to this subpart, except records shall be kept for at least 5 years. If you are complying with the requirements of option 2(d) in Table 1 to this subpart, you shall keep records as specified in §63.1065.

(b) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall keep records of the test results for each gasoline cargo tank loading at the facility as specified in paragraphs (b)(1) through (3) of this section.

(1) Annual certification testing performed under §63.11092(f)(1) and periodic railcar bubble leak testing performed under §63.11092(f)(2).

(2) The documentation file shall be kept up-to-date for each gasoline cargo tank loading at the facility. The documentation for each test shall include, as a minimum, the following information:

(i) *Name of test:* Annual Certification Test—Method 27 or Periodic Railcar Bubble Leak Test Procedure.

(ii) Cargo tank owner's name and address.

(iii) Cargo tank identification number.

(iv) Test location and date.

(v) Tester name and signature.

(vi) *Witnessing inspector, if any:* Name, signature, and affiliation.

(vii) *Vapor tightness repair:* Nature of repair work and when performed in relation to vapor tightness testing.

(viii) *Test results:* Test pressure; pressure or vacuum change, mm of water; time period of test; number of leaks found with instrument; and leak definition.

(3) If you are complying with the alternative requirements in §63.11088(b), you must keep records documenting that you have verified the vapor tightness testing according to the requirements of the Administrator.

(c) As an alternative to keeping records at the terminal of each gasoline cargo tank test result as required in paragraph (b) of this section, an owner or operator may comply with the requirements in either paragraph (c)(1) or paragraph (c)(2) of this section.

(1) An electronic copy of each record is instantly available at the terminal.

(i) The copy of each record in paragraph (c)(1) of this section is an exact duplicate image of the original paper record with certifying signatures.

(ii) The Administrator is notified in writing that each terminal using this alternative is in compliance with paragraph (c)(1) of this section.

(2) For facilities that use a terminal automation system to prevent gasoline cargo tanks that do not have valid cargo tank vapor tightness documentation from loading (e.g., via a card lock-out system), a copy of the documentation is made available (e.g., via facsimile) for inspection by the Administrator's delegated representatives during the course of a site visit, or within a mutually agreeable time frame.

(i) The copy of each record in paragraph (c)(2) of this section is an exact duplicate image of the original paper record with certifying signatures.

(ii) The Administrator is notified in writing that each terminal using this alternative is in compliance with paragraph (c)(2) of this section.

(d) Each owner or operator subject to the equipment leak provisions of §63.11089 shall prepare and maintain a record describing the types, identification numbers, and locations of all equipment in gasoline service. For facilities electing to implement an instrument program under §63.11089, the record shall contain a full description of the program.

(e) Each owner or operator of an affected source subject to equipment leak inspections under §63.11089 shall record in the log book for each leak that is detected the information specified in paragraphs (e)(1) through (7) of this section.

(1) The equipment type and identification number.

(2) The nature of the leak (i.e., vapor or liquid) and the method of detection (i.e., sight, sound, or smell).

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

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

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

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

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

(f) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall:

(1) Keep an up-to-date, readily accessible record of the continuous monitoring data required under §63.11092(b) or §63.11092(e). This record shall indicate the time intervals during which loadings of gasoline cargo tanks have occurred or, alternatively, shall record the operating parameter data only during such loadings. The date and time of day shall also be indicated at reasonable intervals on this record.

(2) Record and report simultaneously with the Notification of Compliance Status required under §63.11093(b):

(i) All data and calculations, engineering assessments, and manufacturer's recommendations used in determining the operating parameter value under §63.11092(b) or §63.11092(e); and

(ii) The following information when using a flare under provisions of §63.11(b) to comply with §63.11087(a):

(A) Flare design (i.e., steam-assisted, air-assisted, or non-assisted); and

(B) All visible emissions (VE) readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required under §63.11092(e)(3).

(3) Keep an up-to-date, readily accessible copy of the monitoring and inspection plan required under §63.11092(b)(1)(i)(B)(*2*) or §63.11092(b)(1)(iii)(B)(*2*).

(4) Keep an up-to-date, readily accessible record of all system malfunctions, as specified in §63.11092(b)(1)(i)(B)(*2*)(*v*) or §63.11092(b)(1)(iii)(B)(*2*)(*v*).

(5) If an owner or operator requests approval to use a vapor processing system or monitor an operating parameter other than those specified in §63.11092(b), the owner or operator shall submit a description of planned reporting and recordkeeping procedures.

(g) Each owner or operator of an affected source under this subpart shall keep records as specified in paragraphs (g)(1) and (2) of this section.

(1) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

(2) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.11085(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[73 FR 1933, Jan. 10, 2008, as amended at 76 FR 4178, Jan. 24, 2011]

§ 63.11095 What are my reporting requirements?

(a) Each owner or operator of a bulk terminal or a pipeline breakout station subject to the control requirements of this subpart shall include in a semiannual compliance report to the Administrator the following information, as applicable:

(1) For storage vessels, if you are complying with options 2(a), 2(b), or 2(c) in Table 1 to this subpart, the information specified in §60.115b(a), §60.115b(b), or §60.115b(c) of this chapter, depending upon the control equipment installed, or, if you are complying with option 2(d) in Table 1 to this subpart, the information specified in §63.1066.

(2) For loading racks, each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility.

(3) For equipment leak inspections, the number of equipment leaks not repaired within 15 days after detection.

(4) For storage vessels complying with §63.11087(b) after January 10, 2011, the storage vessel's Notice of Compliance Status information can be included in the next semi-annual compliance report in lieu of filing a separate Notification of Compliance Status report under §63.11093.

(b) Each owner or operator of an affected source subject to the control requirements of this subpart shall submit an excess emissions report to the Administrator at the time the semiannual compliance report is submitted. Excess emissions events under this subpart, and the information to be included in the excess emissions report, are specified in paragraphs (b)(1) through (5) of this section.

(1) Each instance of a non-vapor-tight gasoline cargo tank loading at the facility in which the owner or operator failed to take steps to assure that such cargo tank would not be reloaded at the facility before vapor tightness documentation for that cargo tank was obtained.

(2) Each reloading of a non-vapor-tight gasoline cargo tank at the facility before vapor tightness documentation for that cargo tank is obtained by the facility in accordance with §63.11094(b).

(3) Each exceedance or failure to maintain, as appropriate, the monitored operating parameter value determined under §63.11092(b). The report shall include the monitoring data for the days on which exceedances or failures to maintain have occurred, and a description and timing of the steps taken to repair or perform maintenance on the vapor collection and processing systems or the CMS.

(4) Each instance in which malfunctions discovered during the monitoring and inspections required under §63.11092(b)(1)(i)(B)(*2*) and (b)(1)(iii)(B)(*2*) were not resolved according to the necessary corrective actions described in the monitoring and inspection plan. The report shall include a description of the malfunction and the timing of the steps taken to correct the malfunction.

(5) For each occurrence of an equipment leak for which no repair attempt was made within 5 days or for which repair was not completed within 15 days after detection:

(i) The date on which the leak was detected;

(ii) The date of each attempt to repair the leak;

(iii) The reasons for the delay of repair; and

(iv) The date of successful repair.

(c) Each owner or operator of a bulk gasoline plant or a pipeline pumping station shall submit a semiannual excess emissions report, including the information specified in paragraphs (a)(3) and (b)(5) of this section, only for a 6-month period during which an excess emission event has occurred. If no excess emission events have occurred during the previous 6-month period, no report is required.

(d) Each owner or operator of an affected source under this subpart shall submit a semiannual report including the number, duration, and a brief description of each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.11085(a), including actions taken to correct a malfunction. The report may be submitted as a part of the semiannual compliance report, if one is required. Owners or operators of affected bulk plants and pipeline pumping stations are not required to submit reports for periods during which no malfunctions occurred.

[73 FR 1933, Jan. 10, 2008 as amended at 73 FR 12276, Mar. 7, 2008; 76 FR 4178, Jan. 24, 2011]

Other Requirements and Information

§ 63.11098 What parts of the General Provisions apply to me?

Table 3 to this subpart shows which parts of the General Provisions apply to you.

§ 63.11099 Who implements and enforces this subpart?

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

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

(c) The authorities that cannot be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the requirements in §§63.11086 through 63.11088 and §63.11092. Any owner or operator requesting to use an alternative means of emission limitation for storage vessels in Table 1 to this subpart must follow either the provisions in §60.114b of this chapter if you are complying with options 2(a), 2(b), or 2(c) in Table 1 to this subpart, or the provisions in §63.1064 if you are complying with option 2(d) in Table 1 to this subpart.

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

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

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

§ 63.11100 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act (CAA), in subparts A, K, Ka, Kb, and XX of part 60 of this chapter, or in subparts A, R, and WW of this part. All terms defined in both subpart A of part 60 of this chapter and subparts A, R, and WW of this part

shall have the meaning given in subparts A, R, and WW of this part. For purposes of this subpart, definitions in this section supersede definitions in other parts or subparts.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this subpart).

Bulk gasoline plant means any gasoline storage and distribution facility that receives gasoline by pipeline, ship or barge, or cargo tank, and subsequently loads the gasoline into gasoline cargo tanks for transport to gasoline dispensing facilities, and has a gasoline throughput of less than 20,000 gallons per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal, State, or local law, and discoverable by the Administrator and any other person.

Bulk gasoline terminal means any gasoline storage and distribution facility that receives gasoline by pipeline, ship or barge, or cargo tank and has a gasoline throughput of 20,000 gallons per day or greater. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal, State, or local law and discoverable by the Administrator and any other person.

Equipment means each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in the gasoline liquid transfer and vapor collection systems. This definition also includes the entire vapor processing system except the exhaust port(s) or stack(s).

Flare means a thermal oxidation system using an open (without enclosure) flame.

Gasoline means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater, which is used as a fuel for internal combustion engines.

Gasoline cargo tank means a delivery tank truck or railcar which is loading gasoline or which has loaded gasoline on the immediately previous load.

Gasoline storage tank or vessel means each tank, vessel, reservoir, or container used for the storage of gasoline, but does not include:

(1) Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of gasoline or gasoline vapors;

(2) Subsurface caverns or porous rock reservoirs;

(3) Oil/water separators and sumps, including butane blending sample recovery tanks, used to collect drained material such that it can be pumped to storage or back into a process; or

(4) Tanks or vessels permanently attached to mobile sources such as trucks, railcars, barges, or ships.

In gasoline service means that a piece of equipment is used in a system that transfers gasoline or gasoline vapors.

Monthly means once per calendar month at regular intervals of no less than 28 days and no more than 35 days.

Operating parameter value means a value for an operating or emission parameter of the vapor processing system (e.g., temperature) which, if maintained continuously by itself or in combination with

one or more other operating parameter values, determines that an owner or operator has complied with the applicable emission standard. The operating parameter value is determined using the procedures specified in §63.11092(b).

Pipeline breakout station means a facility along a pipeline containing storage vessels used to relieve surges or receive and store gasoline from the pipeline for re-injection and continued transportation by pipeline or to other facilities.

Pipeline pumping station means a facility along a pipeline containing pumps to maintain the desired pressure and flow of product through the pipeline, and not containing gasoline storage tanks other than surge control tanks.

Submerged filling means, for the purposes of this subpart, the filling of a gasoline cargo tank or a stationary storage tank through a submerged fill pipe whose discharge is no more than the applicable distance specified in §63.11086(a) from the bottom of the tank. Bottom filling of gasoline cargo tanks or storage tanks is included in this definition.

Surge control tank or vessel means, for the purposes of this subpart, those tanks or vessels used only for controlling pressure in a pipeline system during surges or other variations from normal operations.

Vapor collection-equipped gasoline cargo tank means a gasoline cargo tank that is outfitted with the equipment necessary to transfer vapors, displaced during the loading of gasoline into the cargo tank, to a vapor processor system.

Vapor-tight gasoline cargo tank means a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in §63.11092(f).

[73 FR 1933, Jan. 10, 2008, as amended at 76 FR 4178, Jan. 24, 2011]

Table 1 to Subpart BBBBBB of Part 63—Applicability Criteria, Emission Limits, and Management Practices for Storage Tanks

If you own or operate . . .	Then you must . . .
1. A gasoline storage tank meeting either of the following conditions: (i) a capacity of less than 75 cubic meters (m^3); or (ii) a capacity of less than 151 $m^3$and a gasoline throughput of 480 gallons per day or less. Gallons per day is calculated by summing the current day's throughput, plus the throughput for the previous 364 days, and then dividing that sum by 365	Equip each gasoline storage tank with a fixed roof that is mounted to the storage tank in a stationary manner, and maintain all openings in a closed position at all times when not in use.
2. A gasoline storage tank with a capacity of greater than or equal to 75 $m^3$and not meeting any of the criteria specified in item 1 of this Table	Do the following: (a) Reduce emissions of total organic HAP or TOC by 95 weight-percent with a closed vent system and control device, as specified in §60.112b(a)(3) of this chapter; or
	(b) Equip each internal floating roof gasoline storage tank according to the requirements in §60.112b(a)(1) of this chapter, except for the secondary seal requirements under

If you own or operate . . .	Then you must . . .
	§60.112b(a)(1)(ii)(B) and the requirements in §60.112b(a)(1)(iv) through (ix) of this chapter; and
	(c) Equip each external floating roof gasoline storage tank according to the requirements in §60.112b(a)(2) of this chapter, except that the requirements of §60.112b(a)(2)(ii) of this chapter shall only be required if such storage tank does not currently meet the requirements of §60.112b(a)(2)(i) of this chapter; or
	(d) Equip and operate each internal and external floating roof gasoline storage tank according to the applicable requirements in §63.1063(a)(1) and (b), except for the secondary seal requirements under §63.1063(a)(1)(i)(C) and (D), and equip each external floating roof gasoline storage tank according to the requirements of §63.1063(a)(2) if such storage tank does not currently meet the requirements of §63.1063(a)(1).
3. A surge control tank	Equip each tank with a fixed roof that is mounted to the tank in a stationary manner and with a pressure/vacuum vent with a positive cracking pressure of no less than 0.50 inches of water. Maintain all openings in a closed position at all times when not in use.

[76 FR 4179, Jan. 24, 2011]

Table 2 to Subpart BBBBBB of Part 63—Applicability Criteria, Emission Limits, and Management Practices for Loading Racks

If you own or operate . . .	Then you must . . .
1. A bulk gasoline terminal loading rack(s) with a gasoline throughput (total of all racks) of 250,000 gallons per day, or greater. Gallons per day is calculated by summing the current day's throughput, plus the throughput for the previous 364 days, and then dividing that sum by 365	(a) Equip your loading rack(s) with a vapor collection system designed to collect the TOC vapors displaced from cargo tanks during product loading; and (b) Reduce emissions of TOC to less than or equal to 80 mg/l of gasoline loaded into gasoline cargo tanks at the loading rack; and (c) Design and operate the vapor collection system to prevent any TOC vapors collected at one loading rack or lane from passing through another loading rack or lane to the atmosphere; and (d) Limit the loading of gasoline into gasoline cargo tanks that are vapor tight using the procedures specified in §60.502(e) through (j) of this chapter. For the purposes of this section, the term “tank truck” as used in §60.502(e) through (j) of this chapter means “cargo tank” as defined in §63.11100.
2. A bulk gasoline terminal loading rack(s) with a gasoline throughput (total of all racks) of less than 250,000 gallons per day. Gallons per day is calculated by summing the current day's throughput, plus the throughput for the previous 364 days, and then dividing that sum by 365	(a) Use submerged filling with a submerged fill pipe that is no more than 6 inches from the bottom of the cargo tank; and (b) Make records available within 24 hours of a request by the Administrator to document your gasoline throughput.

[76 FR 4179, Jan. 24, 2011]

Table 3 to Subpart BBBBBB of Part 63—Applicability of General Provisions

Citation	Subject	Brief description	Applies to subpart BBBBBB
§63.1	Applicability	Initial applicability determination; applicability after standard established; permit requirements; extensions, notifications	Yes, specific requirements given in §63.11081.
§63.1(c)(2)	Title V permit	Requirements for obtaining a title V permit from the applicable permitting authority	Yes, §63.11081(b) of subpart BBBBBB exempts identified area sources from the obligation to obtain title V operating permits.
§63.2	Definitions	Definitions for part 63 standards	Yes, additional definitions in §63.11100.
§63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§63.4	Prohibited Activities and Circumvention	Prohibited activities; circumvention, severability	Yes.
§63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes.
§63.6(a)	Compliance with Standards/Operation & Maintenance Applicability	General Provisions apply unless compliance extension; General Provisions apply to area sources that become major	Yes.
§63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed Sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for CAA section 112(f)	Yes.
§63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes.
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources that Become Major	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source	No.
§63.6(c)(1)–(2)	Compliance Dates for Existing Sources	Comply according to date in this subpart, which must be no later than 3 years after effective date; for CAA	No, §63.11083 specifies the compliance dates.

Citation	Subject	Brief description	Applies to subpart BBBBBB
		section 112(f) standards, comply within 90 days of effective date unless compliance extension	
§63.6(c)(3)–(4)	[Reserved]		
§63.6(c)(5)	Compliance Dates for Existing Area Sources that Become Major	Area sources that become major must comply with major source standards by date indicated in this subpart or by equivalent time period (e.g., 3 years)	No.
§63.6(d)	[Reserved]		
63.6(e)(1)(i)	General duty to minimize emissions	Operate to minimize emissions at all times; information Administrator will use to determine if operation and maintenance requirements were met	No. *See* §63.11085 for general duty requirement.
63.6(e)(1)(ii)	Requirement to correct malfunctions as soon as possible	Owner or operator must correct malfunctions as soon as possible	No.
§63.6(e)(2)	[Reserved]		
§63.6(e)(3)	Startup, Shutdown, and Malfunction (SSM) plan	Requirement for SSM plan; content of SSM plan; actions during SSM	No.
§63.6(f)(1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM	No.
§63.6(f)(2)–(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes.
§63.6(g)(1)–(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§63.6(h)(1)	Compliance with Opacity/VE Standards	You must comply with opacity/VE standards at all times except during SSM	No.
§63.6(h)(2)(i)	Determining Compliance with Opacity/VE Standards	If standard does not State test method, use EPA Method 9 for opacity in appendix A of part 60 of this chapter and EPA Method 22 for VE in appendix A of part 60 of this chapter	No.
§63.6(h)(2)(ii)	[Reserved]		
§63.6(h)(2)(iii)	Using Previous Tests to Demonstrate Compliance with Opacity/VE Standards	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart	No.
§63.6(h)(3)	[Reserved]		

Citation	Subject	Brief description	Applies to subpart BBBBBB
§63.6(h)(4)	Notification of Opacity/VE Observation Date	Must notify Administrator of anticipated date of observation	No.
§63.6(h)(5)(i), (iii)–(v)	Conducting Opacity/VE Observations	Dates and schedule for conducting opacity/VE observations	No.
§63.6(h) (5)(ii)	Opacity Test Duration and Averaging Times	Must have at least 3 hours of observation with 30 6-minute averages	No.
§63.6(h)(6)	Records of Conditions During Opacity/VE Observations	Must keep records available and allow Administrator to inspect	No.
§63.6(h)(7)(i)	Report Continuous Opacity Monitoring System (COMS) Monitoring Data from Performance Test	Must submit COMS data with other performance test data	No.
§63.6(h)(7)(ii)	Using COMS Instead of EPA Method 9	Can submit COMS data instead of EPA Method 9 results even if rule requires EPA Method 9 in appendix A of part 60 of this chapter, but must notify Administrator before performance test	No.
§63.6(h)(7)(iii)	Averaging Time for COMS During Performance Test	To determine compliance, must reduce COMS data to 6-minute averages	No.
§63.6(h)(7)(iv)	COMS Requirements	Owner/operator must demonstrate that COMS performance evaluations are conducted according to §63.8(e); COMS are properly maintained and operated according to §63.8(c) and data quality as §63.8(d)	No.
§63.6(h)(7)(v)	Determining Compliance with Opacity/VE Standards	COMS is probable but not conclusive evidence of compliance with opacity standard, even if EPA Method 9 observation shows otherwise. Requirements for COMS to be probable evidence-proper maintenance, meeting Performance Specification 1 in appendix B of part 60 of this chapter, and data have not been altered	No.
§63.6(h)(8)	Determining Compliance with Opacity/VE Standards	Administrator will use all COMS, EPA Method 9 (in appendix A of part 60 of this chapter), and EPA Method 22 (in appendix A of part 60 of this chapter) results, as well as information about operation and maintenance to determine compliance	No.

Citation	Subject	Brief description	Applies to subpart BBBBBB
§63.6(h)(9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard	No.
§63.6(i)(1)–(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes.
§63.6(j)	Presidential Compliance Exemption	President may exempt any source from requirement to comply with this subpart	Yes.
§63.7(a)(2)	Performance Test Dates	Dates for conducting initial performance testing; must conduct 180 days after compliance date	Yes.
§63.7(a)(3)	Section 114 Authority	Administrator may require a performance test under CAA section 114 at any time	Yes.
§63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test	Yes.
§63.7(b)(2)	Notification of Re-scheduling	If have to reschedule performance test, must notify Administrator of rescheduled date as soon as practicable and without delay	Yes.
§63.7(c)	Quality Assurance (QA)/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing	Yes.
§63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
63.7(e)(1)	Conditions for Conducting Performance Tests	Performance test must be conducted under representative conditions	No, §63.11092(g) specifies conditions for conducting performance tests.
§63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to this subpart and EPA test methods unless Administrator approves alternative	Yes.
§63.7(e)(3)	Test Run Duration	Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used	Yes, except for testing conducted under §63.11092(a).
§63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an intermediate or major change, or alternative to a test method	Yes.

Citation	Subject	Brief description	Applies to subpart BBBBBB
§63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; must submit performance test data 60 days after end of test with the notification of compliance status; keep data for 5 years	Yes.
§63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes.
§63.8(a)(2)	Performance Specifications	Performance specifications in appendix B of 40 CFR part 60 apply	Yes.
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring of Flares	Monitoring requirements for flares in §63.11 apply	Yes.
§63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes.
§63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems; must install on each affected source or after combined with another affected source before it is released to the atmosphere provided the monitoring is sufficient to demonstrate compliance with the standard; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup	Yes.
§63.8(c)(1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices	Yes.
§63.8(c)(1)(i)	Operation and Maintenance of CMS	Must maintain and operate each CMS as specified in §63.6(e)(1)	No.
§63.8(c)(1)(ii)	Operation and Maintenance of CMS	Must keep parts for routine repairs readily available	Yes.
§63.8(c)(1)(iii)	Operation and Maintenance of CMS	Requirement to develop SSM Plan for CMS	No.
§63.8(c) (2)–(8)	CMS Requirements	Must install to get representative emission or parameter measurements; must verify operational status before or at performance test	Yes.

Citation	Subject	Brief description	Applies to subpart BBBBBB
§63.8(d)	CMS Quality Control	Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years; keep old versions for 5 years after revisions	No.
§63.8(e)	CMS Performance Evaluation	Notification, performance evaluation test plan, reports	Yes.
§63.8(f) (1)–(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	Yes.
§63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for CEMS	Yes.
§63.8(g)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that cannot be used in average	Yes.
§63.9(a)	Notification Requirements	Applicability and State delegation	Yes.
§63.9(b) (1)–(2), (4)–(5)	Initial Notifications	Submit notification within 120 days after effective date; notification of intent to construct/reconstruct, notification of commencement of construction/reconstruction, notification of startup; contents of each	Yes.
§63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate	Yes.
§63.9(d)	Notification of Special Compliance Requirements for New Sources	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes.
§63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.
§63.9(g)	Additional Notifications When Using CMS	Notification of performance evaluation; notification about use of COMS data; notification that exceeded criterion for relative accuracy alternative	Yes, however, there are no opacity standards.
§63.9(h)(1)–(6)	Notification of Compliance Status	Contents due 60 days after end of performance test or other	Yes, except as specified in

Citation	Subject	Brief description	Applies to subpart BBBBBB
		compliance demonstration, except for opacity/VE, which are due 30 days after; when to submit to Federal vs. State authority	§63.11095(a)(4); also, there are no opacity standards.
§63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change when notifications must be submitted	Yes.
§63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.
§63.10(a)	Record-keeping/Reporting	Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source	Yes.
§63.10(b)(1)	Record-keeping/Reporting	General requirements; keep all records readily available; keep for 5 years	Yes.
§63.10(b)(2)(i)	Records related to SSM	Recordkeeping of occurrence and duration of startups and shutdowns	No.
§63.10(b)(2)(ii)	Records related to SSM	Recordkeeping of malfunctions	No. *See* §63.11094(g) for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunction.
§63.10(b)(2)(iii)	Maintenance records	Recordkeeping of maintenance on air pollution control and monitoring equipment	Yes.
§63.10(b)(2)(iv)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§63.10(b)(2)(v)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§63.10(b)(2)(vi)–(xi)	CMS Records	Malfunctions, inoperative, out-of-control periods	Yes.
§63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	Yes.
§63.10(b)(2)(xiv)	Records	All documentation supporting initial notification and notification of compliance status	Yes.
§63.10(b)(3)	Records	Applicability determinations	Yes.
§63.10(c)	Records	Additional records for CMS	No.

Citation	Subject	Brief description	Applies to subpart BBBBBB
§63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes.
§63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	No.
§63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes.
§63.10(d)(5)	SSM Reports	Contents and submission	No. *See* §63.11095(d) for malfunction reporting requirements.
§63.10(e)(1)–(2)	Additional CMS Reports	Must report results for each CEMS on a unit; written copy of CMS performance evaluation; 2–3 copies of COMS performance evaluation	No.
§63.10(e)(3)(i)–(iii)	Reports	Schedule for reporting excess emissions	Yes, note that §63.11095 specifies excess emission events for this subpart.
§63.10(e)(3)(iv)–(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§63.8(c)(7)–(8) and 63.10(c)(5)–(13)	Yes, §63.11095 specifies excess emission events for this subpart.
§63.10(e)(3)(vi)–(viii)	Excess Emissions Report and Summary Report	Requirements for reporting excess emissions for CMS; requires all of the information in §§63.8(c)(7)–(8) and 63.10(c)(5)–(13)	Yes.
§63.10(e)(4)	Reporting COMS Data	Must submit COMS data with performance test data	Yes.

Citation	Subject	Brief description	Applies to subpart BBBBBB
§63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.
§63.11(b)	Flares	Requirements for flares	Yes, the section references §63.11(b).
§63.12	Delegation	State authority to enforce standards	Yes.
§63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes.
§63.14	Incorporations by Reference	Test methods incorporated by reference	Yes.
§63.15	Availability of Information	Public and confidential information	Yes.

[73 FR 1933, Jan. 10, 2008, as amended at 76 FR 4180, Jan. 24, 2011]

Indiana Department of Environmental Management
Office of Air Quality

Attachment H

Subpart CCCCCC—National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

Source: 73 FR 1945, Jan. 10, 2008, unless otherwise noted.

What This Subpart Covers

§ 63.11110 What is the purpose of this subpart?

This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF). This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices.

§ 63.11111 Am I subject to the requirements in this subpart?

(a) The affected source to which this subpart applies is each GDF that is located at an area source. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.

(b) If your GDF has a monthly throughput of less than 10,000 gallons of gasoline, you must comply with the requirements in §63.11116.

(c) If your GDF has a monthly throughput of 10,000 gallons of gasoline or more, you must comply with the requirements in §63.11117.

(d) If your GDF has a monthly throughput of 100,000 gallons of gasoline or more, you must comply with the requirements in §63.11118.

(e) An affected source shall, upon request by the Administrator, demonstrate that their monthly throughput is less than the 10,000-gallon or the 100,000-gallon threshold level, as applicable. For new or reconstructed affected sources, as specified in §63.11112(b) and (c), recordkeeping to document monthly throughput must begin upon startup of the affected source. For existing sources, as specified in §63.11112(d), recordkeeping to document monthly throughput must begin on January 10, 2008. For existing sources that are subject to this subpart only because they load gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, recordkeeping to document monthly throughput must begin on January 24, 2011. Records required under this paragraph shall be kept for a period of 5 years.

(f) If you are an owner or operator of affected sources, as defined in paragraph (a) of this section, you are not required to obtain a permit under 40 CFR part 70 or 40 CFR part 71 as a result of being subject to this subpart. However, you must still apply for and obtain a permit under 40 CFR part 70 or 40 CFR part 71 if you meet one or more of the applicability criteria found in 40 CFR 70.3(a) and (b) or 40 CFR 71.3(a) and (b).

(g) The loading of aviation gasoline into storage tanks at airports, and the subsequent transfer of aviation gasoline within the airport, is not subject to this subpart.

(h) Monthly throughput is the total volume of gasoline loaded into, or dispensed from, all the gasoline storage tanks located at a single affected GDF. If an area source has two or more GDF at separate locations within the area source, each GDF is treated as a separate affected source.

(i) If your affected source's throughput ever exceeds an applicable throughput threshold, the affected source will remain subject to the requirements for sources above the threshold, even if the affected source throughput later falls below the applicable throughput threshold.

(j) The dispensing of gasoline from a fixed gasoline storage tank at a GDF into a portable gasoline tank for the on-site delivery and subsequent dispensing of the gasoline into the fuel tank of a motor vehicle or other gasoline-fueled engine or equipment used within the area source is only subject to §63.11116 of this subpart.

(k) For any affected source subject to the provisions of this subpart and another Federal rule, you may elect to comply only with the more stringent provisions of the applicable subparts. You must consider all provisions of the rules, including monitoring, recordkeeping, and reporting. You must identify the affected source and provisions with which you will comply in your Notification of Compliance Status required under §63.11124. You also must demonstrate in your Notification of Compliance Status that each provision with which you will comply is at least as stringent as the otherwise applicable requirements in this subpart. You are responsible for making accurate determinations concerning the more stringent provisions, and noncompliance with this rule is not excused if it is later determined that your determination was in error, and, as a result, you are violating this subpart. Compliance with this rule is your responsibility and the Notification of Compliance Status does not alter or affect that responsibility.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4181, Jan. 24, 2011]

§ 63.11112 What parts of my affected source does this subpart cover?

(a) The emission sources to which this subpart applies are gasoline storage tanks and associated equipment components in vapor or liquid gasoline service at new, reconstructed, or existing GDF that meet the criteria specified in §63.11111. Pressure/Vacuum vents on gasoline storage tanks and the equipment necessary to unload product from cargo tanks into the storage tanks at GDF are covered emission sources. The equipment used for the refueling of motor vehicles is not covered by this subpart.

(b) An affected source is a new affected source if you commenced construction on the affected source after November 9, 2006, and you meet the applicability criteria in §63.11111 at the time you commenced operation.

(c) An affected source is reconstructed if you meet the criteria for reconstruction as defined in §63.2.

(d) An affected source is an existing affected source if it is not new or reconstructed.

§ 63.11113 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section, except as specified in paragraph (d) of this section.

(1) If you start up your affected source before January 10, 2008, you must comply with the standards in this subpart no later than January 10, 2008.

(2) If you start up your affected source after January 10, 2008, you must comply with the standards in this subpart upon startup of your affected source.

(b) If you have an existing affected source, you must comply with the standards in this subpart no later than January 10, 2011.

(c) If you have an existing affected source that becomes subject to the control requirements in this subpart because of an increase in the monthly throughput, as specified in §63.11111(c) or §63.11111(d), you must comply with the standards in this subpart no later than 3 years after the affected source becomes subject to the control requirements in this subpart.

(d) If you have a new or reconstructed affected source and you are complying with Table 1 to this subpart, you must comply according to paragraphs (d)(1) and (2) of this section.

(1) If you start up your affected source from November 9, 2006 to September 23, 2008, you must comply no later than September 23, 2008.

(2) If you start up your affected source after September 23, 2008, you must comply upon startup of your affected source.

(e) The initial compliance demonstration test required under §63.11120(a)(1) and (2) must be conducted as specified in paragraphs (e)(1) and (2) of this section.

(1) If you have a new or reconstructed affected source, you must conduct the initial compliance test upon installation of the complete vapor balance system.

(2) If you have an existing affected source, you must conduct the initial compliance test as specified in paragraphs (e)(2)(i) or (e)(2)(ii) of this section.

(i) For vapor balance systems installed on or before December 15, 2009, you must test no later than 180 days after the applicable compliance date specified in paragraphs (b) or (c) of this section.

(ii) For vapor balance systems installed after December 15, 2009, you must test upon installation of the complete vapor balance system.

(f) If your GDF is subject to the control requirements in this subpart only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, you must comply with the standards in this subpart as specified in paragraphs (f)(1) or (f)(2) of this section.

(1) If your GDF is an existing facility, you must comply by January 24, 2014.

(2) If your GDF is a new or reconstructed facility, you must comply by the dates specified in paragraphs (f)(2)(i) and (ii) of this section.

(i) If you start up your GDF after December 15, 2009, but before January 24, 2011, you must comply no later than January 24, 2011.

(ii) If you start up your GDF after January 24, 2011, you must comply upon startup of your GDF.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 35944, June 25, 2008; 76 FR 4181, Jan. 24, 2011]

Emission Limitations and Management Practices

§ 63.11115 What are my general duties to minimize emissions?

Each owner or operator of an affected source under this subpart must comply with the requirements of paragraphs (a) and (b) of this section.

(a) You must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(b) You must keep applicable records and submit reports as specified in §63.11125(d) and §63.11126(b).

[76 FR 4182, Jan. 24, 2011]

§ 63.11116 Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.

(a) You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

(1) Minimize gasoline spills;

(2) Clean up spills as expeditiously as practicable;

(3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

(4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

(b) You are not required to submit notifications or reports as specified in §63.11125, §63.11126, or subpart A of this part, but you must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(c) You must comply with the requirements of this subpart by the applicable dates specified in §63.11113.

(d) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (a)(3) of this section.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4182, Jan. 24, 2011]

§ 63.11117 Requirements for facilities with monthly throughput of 10,000 gallons of gasoline or more.

(a) You must comply with the requirements in section §63.11116(a).

(b) Except as specified in paragraph (c) of this section, you must only load gasoline into storage tanks at your facility by utilizing submerged filling, as defined in §63.11132, and as specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section. The applicable distances in paragraphs (b)(1) and (2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.

(1) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the tank.

(2) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank.

(3) Submerged fill pipes not meeting the specifications of paragraphs (b)(1) or (b)(2) of this section are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit.

(c) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements in paragraph (b) of this section, but must comply only with all of the requirements in §63.11116.

(d) You must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(e) You must submit the applicable notifications as required under §63.11124(a).

(f) You must comply with the requirements of this subpart by the applicable dates contained in §63.11113.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008; 76 FR 4182, Jan. 24, 2011]

§ 63.11118 Requirements for facilities with monthly throughput of 100,000 gallons of gasoline or more.

(a) You must comply with the requirements in §§63.11116(a) and 63.11117(b).

(b) Except as provided in paragraph (c) of this section, you must meet the requirements in either paragraph (b)(1) or paragraph (b)(2) of this section.

(1) Each management practice in Table 1 to this subpart that applies to your GDF.

(2) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(2)(i) and (ii) of this section, you will be deemed in compliance with this subsection.

(i) You operate a vapor balance system at your GDF that meets the requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 1 to this subpart.

(ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.

(c) The emission sources listed in paragraphs (c)(1) through (3) of this section are not required to comply with the control requirements in paragraph (b) of this section, but must comply with the requirements in §63.11117.

(1) Gasoline storage tanks with a capacity of less than 250 gallons that are constructed after January 10, 2008.

(2) Gasoline storage tanks with a capacity of less than 2,000 gallons that were constructed before January 10, 2008.

(3) Gasoline storage tanks equipped with floating roofs, or the equivalent.

(d) Cargo tanks unloading at GDF must comply with the management practices in Table 2 to this subpart.

(e) You must comply with the applicable testing requirements contained in §63.11120.

(f) You must submit the applicable notifications as required under §63.11124.

(g) You must keep records and submit reports as specified in §§63.11125 and 63.11126.

(h) You must comply with the requirements of this subpart by the applicable dates contained in §63.11113.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008]

Testing and Monitoring Requirements

§ 63.11120 What testing and monitoring requirements must I meet?

(a) Each owner or operator, at the time of installation, as specified in §63.11113(e), of a vapor balance system required under §63.11118(b)(1), and every 3 years thereafter, must comply with the requirements in paragraphs (a)(1) and (2) of this section.

(1) You must demonstrate compliance with the leak rate and cracking pressure requirements, specified in item 1(g) of Table 1 to this subpart, for pressure-vacuum vent valves installed on your gasoline storage tanks using the test methods identified in paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.

(i) California Air Resources Board Vapor Recovery Test Procedure TP–201.1E,—Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, adopted October 8, 2003 (incorporated by reference, see §63.14).

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in §63.7(f).

(2) You must demonstrate compliance with the static pressure performance requirement specified in item 1(h) of Table 1 to this subpart for your vapor balance system by conducting a static pressure test on your gasoline storage tanks using the test methods identified in paragraphs (a)(2)(i), (a)(2)(ii), or (a)(2)(iii) of this section.

(i) California Air Resources Board Vapor Recovery Test Procedure TP–201.3,—Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, adopted April 12, 1996, and amended March 17, 1999 (incorporated by reference, see §63.14).

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in §63.7(f).

(iii) Bay Area Air Quality Management District Source Test Procedure ST–30—Static Pressure Integrity Test—Underground Storage Tanks, adopted November 30, 1983, and amended December 21, 1994 (incorporated by reference, *see* §63.14).

(b) Each owner or operator choosing, under the provisions of §63.6(g), to use a vapor balance system other than that described in Table 1 to this subpart must demonstrate to the Administrator or delegated authority under paragraph §63.11131(a) of this subpart, the equivalency of their vapor balance system to that described in Table 1 to this subpart using the procedures specified in paragraphs (b)(1) through (3) of this section.

(1) You must demonstrate initial compliance by conducting an initial performance test on the vapor balance system to demonstrate that the vapor balance system achieves 95 percent reduction using the California Air Resources Board Vapor Recovery Test Procedure TP–201.1,—Volumetric Efficiency for Phase I Vapor Recovery Systems, adopted April 12, 1996, and amended February 1, 2001, and October 8, 2003, (incorporated by reference, see §63.14).

(2) You must, during the initial performance test required under paragraph (b)(1) of this section, determine and document alternative acceptable values for the leak rate and cracking pressure requirements specified in item 1(g) of Table 1 to this subpart and for the static pressure performance requirement in item 1(h) of Table 1 to this subpart.

(3) You must comply with the testing requirements specified in paragraph (a) of this section.

(c) Conduct of performance tests. Performance tests conducted for this subpart shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (*i.e.,* performance based on normal operating conditions) of the affected source. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(d) Owners and operators of gasoline cargo tanks subject to the provisions of Table 2 to this subpart must conduct annual certification testing according to the vapor tightness testing requirements found in §63.11092(f).

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4182, Jan. 24, 2011]

Notifications, Records, and Reports

§ 63.11124 What notifications must I submit and when?

(a) Each owner or operator subject to the control requirements in §63.11117 must comply with paragraphs (a)(1) through (3) of this section.

(1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or at the time you become subject to the control requirements in §63.11117, unless you meet the requirements in paragraph (a)(3) of this section. If your affected source is subject to the control requirements in §63.11117 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, you must submit the Initial Notification by May 24, 2011. The Initial Notification must contain the information specified in paragraphs (a)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in §63.13.

(i) The name and address of the owner and the operator.

(ii) The address (i.e., physical location) of the GDF.

(iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of §63.11117 that apply to you.

(2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in §63.13, within 60 days of the applicable compliance date specified in §63.11113, unless you meet the requirements in paragraph (a)(3) of this section. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facilities' monthly throughput is calculated based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (a)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (a)(1) of this section.

(3) If, prior to January 10, 2008, you are operating in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in §63.11117(b), you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (a)(1) or paragraph (a)(2) of this section.

(b) Each owner or operator subject to the control requirements in §63.11118 must comply with paragraphs (b)(1) through (5) of this section.

(1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or at the time you become subject to the control requirements in §63.11118. If your affected source is subject to the control requirements in §63.11118 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, you must submit the Initial Notification by May 24, 2011. The Initial Notification must contain the information specified in paragraphs (b)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in §63.13.

(i) The name and address of the owner and the operator.

(ii) The address (i.e., physical location) of the GDF.

(iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of §63.11118 that apply to you.

(2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in §63.13, in accordance with the schedule specified in §63.9(h). The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facility's throughput is determined based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (b)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (b)(1) of this section.

(3) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(3)(i) and (ii) of this section, you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (b)(1) or paragraph (b)(2) of this subsection.

(i) You operate a vapor balance system at your gasoline dispensing facility that meets the requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 1 to this subpart.

(ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(4) You must submit a Notification of Performance Test, as specified in §63.9(e), prior to initiating testing required by §63.11120(a) and (b).

(5) You must submit additional notifications specified in §63.9, as applicable.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008; 76 FR 4182, Jan. 24, 2011]

§ 63.11125 What are my recordkeeping requirements?

(a) Each owner or operator subject to the management practices in §63.11118 must keep records of all tests performed under §63.11120(a) and (b).

(b) Records required under paragraph (a) of this section shall be kept for a period of 5 years and shall be made available for inspection by the Administrator's delegated representatives during the course of a site visit.

(c) Each owner or operator of a gasoline cargo tank subject to the management practices in Table 2 to this subpart must keep records documenting vapor tightness testing for a period of 5 years. Documentation must include each of the items specified in §63.11094(b)(2)(i) through (viii). Records of vapor tightness testing must be retained as specified in either paragraph (c)(1) or paragraph (c)(2) of this section.

(1) The owner or operator must keep all vapor tightness testing records with the cargo tank.

(2) As an alternative to keeping all records with the cargo tank, the owner or operator may comply with the requirements of paragraphs (c)(2)(i) and (ii) of this section.

(i) The owner or operator may keep records of only the most recent vapor tightness test with the cargo tank, and keep records for the previous 4 years at their office or another central location.

(ii) Vapor tightness testing records that are kept at a location other than with the cargo tank must be instantly available (*e.g.,* via e-mail or facsimile) to the Administrator's delegated representative during the course of a site visit or within a mutually agreeable time frame. Such records must be an exact duplicate image of the original paper copy record with certifying signatures.

(d) Each owner or operator of an affected source under this subpart shall keep records as specified in paragraphs (d)(1) and (2) of this section.

(1) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

(2) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4183, Jan. 24, 2011]

§ 63.11126 What are my reporting requirements?

(a) Each owner or operator subject to the management practices in §63.11118 shall report to the Administrator the results of all volumetric efficiency tests required under §63.11120(b). Reports submitted under this paragraph must be submitted within 180 days of the completion of the performance testing.

(b) Each owner or operator of an affected source under this subpart shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred.

[76 FR 4183, Jan. 24, 2011]

Other Requirements and Information

§ 63.11130 What parts of the General Provisions apply to me?

Table 3 to this subpart shows which parts of the General Provisions apply to you.

§ 63.11131 Who implements and enforces this subpart?

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

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

(c) The authorities that cannot be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (3) of this section.

(1) Approval of alternatives to the requirements in §§63.11116 through 63.11118 and 63.11120.

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

(3) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

§ 63.11132 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act (CAA), or in subparts A and BBBBBB of this part. For purposes of this subpart, definitions in this section supersede definitions in other parts or subparts.

Dual-point vapor balance system means a type of vapor balance system in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.

Gasoline means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater, which is used as a fuel for internal combustion engines.

Gasoline cargo tank means a delivery tank truck or railcar which is loading or unloading gasoline, or which has loaded or unloaded gasoline on the immediately previous load.

Gasoline dispensing facility (GDF) means any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine used solely for competition. These facilities include, but are not limited to, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment, boats, test engines, landscaping equipment, generators, pumps, and other gasoline-fueled engines and equipment.

Monthly throughput means the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each GDF during a month. Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12.

Motor vehicle means any self-propelled vehicle designed for transporting persons or property on a street or highway.

Nonroad engine means an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 of this title or section 7521 of this title.

Nonroad vehicle means a vehicle that is powered by a nonroad engine, and that is not a motor vehicle or a vehicle used solely for competition.

Submerged filling means, for the purposes of this subpart, the filling of a gasoline storage tank through a submerged fill pipe whose discharge is no more than the applicable distance specified in §63.11117(b) from the bottom of the tank. Bottom filling of gasoline storage tanks is included in this definition.

Vapor balance system means a combination of pipes and hoses that create a closed system between the vapor spaces of an unloading gasoline cargo tank and a receiving storage tank such that vapors displaced from the storage tank are transferred to the gasoline cargo tank being unloaded.

Vapor-tight means equipment that allows no loss of vapors. Compliance with vapor-tight requirements can be determined by checking to ensure that the concentration at a potential leak source is not equal to or greater than 100 percent of the Lower Explosive Limit when measured with a combustible gas detector, calibrated with propane, at a distance of 1 inch from the source.

Vapor-tight gasoline cargo tank means a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in §63.11092(f) of this part.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4183, Jan. 24, 2011]

Table 1 to Subpart CCCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More[1]

If you own or operate	Then you must
1. A new, reconstructed, or existing GDF subject to §63.11118	Install and operate a vapor balance system on your gasoline storage tanks that meets the design criteria in paragraphs (a) through (h).
	(a) All vapor connections and lines on the storage tank shall be equipped with closures that seal upon disconnect.
	(b) The vapor line from the gasoline storage tank to the gasoline cargo tank shall be vapor-tight, as defined in §63.11132.
	(c) The vapor balance system shall be designed such that the pressure in the tank truck does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer.
	(d) The vapor recovery and product adaptors, and the method of connection with the delivery elbow, shall be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations.
	(e) If a gauge well separate from the fill tube is used, it shall be provided with a submerged drop tube that extends the same distance from the bottom of the storage tank as specified in §63.11117(b).
	(f) Liquid fill connections for all systems shall be equipped with vapor-tight caps.
	(g) Pressure/vacuum (PV) vent valves shall be installed on the storage tank vent pipes. The pressure specifications for PV vent valves shall be: a positive pressure setting of 2.5 to 6.0 inches of water and a negative pressure setting of 6.0 to 10.0 inches of water. The total leak rate of all PV vent valves at an affected facility, including connections, shall not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water.
	(h) The vapor balance system shall be capable of meeting the static pressure performance requirement of the following equation:
	$Pf = 2e^{-500.887/v}$
	Where:
	Pf = Minimum allowable final pressure, inches of water.
	v = Total ullage affected by the test, gallons.
	e = Dimensionless constant equal to approximately 2.718.
	2 = The initial pressure, inches water.
2. A new or reconstructed GDF, or	Equip your gasoline storage tanks with a dual-point vapor balance

If you own or operate	Then you must
any storage tank(s) constructed after November 9, 2006, at an existing affected facility subject to §63.11118	system, as defined in §63.11132, and comply with the requirements of item 1 in this Table.

[1]The management practices specified in this Table are not applicable if you are complying with the requirements in §63.11118(b)(2), except that if you are complying with the requirements in §63.11118(b)(2)(i)(B), you must operate using management practices at least as stringent as those listed in this Table.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 35944, June 25, 2008; 76 FR 4184, Jan. 24, 2011]

Table 2 to Subpart CCCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Cargo Tanks Unloading at Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More

If you own or operate	Then you must
A gasoline cargo tank	Not unload gasoline into a storage tank at a GDF subject to the control requirements in this subpart unless the following conditions are met:
	(i) All hoses in the vapor balance system are properly connected,
	(ii) The adapters or couplers that attach to the vapor line on the storage tank have closures that seal upon disconnect,
	(iii) All vapor return hoses, couplers, and adapters used in the gasoline delivery are vapor-tight,
	(iv) All tank truck vapor return equipment is compatible in size and forms a vapor-tight connection with the vapor balance equipment on the GDF storage tank, and
	(v) All hatches on the tank truck are closed and securely fastened.
	(vi) The filling of storage tanks at GDF shall be limited to unloading from vapor-tight gasoline cargo tanks. Documentation that the cargo tank has met the specifications of EPA Method 27 shall be carried with the cargo tank, as specified in §63.11125(c).

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4184, Jan. 24, 2011]

Table 3 to Subpart CCCCCC of Part 63—Applicability of General Provisions

Citation	Subject	Brief description	Applies to subpart CCCCCC
§63.1	Applicability	Initial applicability determination; applicability after standard established; permit requirements; extensions, notifications	Yes, specific requirements given in §63.11111.
§63.1(c)(2)	Title V Permit	Requirements for obtaining a title V permit from the applicable permitting	Yes, §63.11111(f) of subpart

Citation	Subject	Brief description	Applies to subpart CCCCCC
		authority	CCCCCC exempts identified area sources from the obligation to obtain title V operating permits.
§63.2	Definitions	Definitions for part 63 standards	Yes, additional definitions in §63.11132.
§63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§63.4	Prohibited Activities and Circumvention	Prohibited activities; Circumvention, severability	Yes.
§63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes, except that these notifications are not required for facilities subject to §63.11116
§63.6(a)	Compliance with Standards/Operation & Maintenance—Applicability	General Provisions apply unless compliance extension; General Provisions apply to area sources that become major	Yes.
§63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed Sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for CAA section 112(f)	Yes.
§63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes.
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source	No.
§63.6(c)(1)–(2)	Compliance Dates for Existing Sources	Comply according to date in this subpart, which must be no later than 3 years after effective date; for CAA section 112(f) standards, comply within 90 days of effective date unless compliance extension	No, §63.11113 specifies the compliance dates.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§63.6(c)(3)–(4)	[Reserved]		
§63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major	Area sources That become major must comply with major source standards by date indicated in this subpart or by equivalent time period (e.g., 3 years)	No.
§63.6(d)	[Reserved]		
63.6(e)(1)(i)	General duty to minimize emissions	Operate to minimize emissions at all times; information Administrator will use to determine if operation and maintenance requirements were met.	No. *See* §63.11115 for general duty requirement.
63.6(e)(1)(ii)	Requirement to correct malfunctions ASAP	Owner or operator must correct malfunctions as soon as possible.	No.
§63.6(e)(2)	[Reserved]		
§63.6(e)(3)	Startup, Shutdown, and Malfunction (SSM) Plan	Requirement for SSM plan; content of SSM plan; actions during SSM	No.
§63.6(f)(1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM	No.
§63.6(f)(2)–(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes.
§63.6(g)(1)–(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§63.6(h)(1)	Compliance with Opacity/Visible Emission (VE) Standards	You must comply with opacity/VE standards at all times except during SSM	No.
§63.6(h)(2)(i)	Determining Compliance with Opacity/VE Standards	If standard does not State test method, use EPA Method 9 for opacity in appendix A of part 60 of this chapter and EPA Method 22 for VE in appendix A of part 60 of this chapter	No.
§63.6(h)(2)(ii)	[Reserved]		
§63.6(h)(2)(iii)	Using Previous Tests To Demonstrate Compliance With Opacity/VE Standards	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart	No.
§63.6(h)(3)	[Reserved]		
§63.6(h)(4)	Notification of Opacity/VE Observation Date	Must notify Administrator of anticipated date of observation	No.
§63.6(h)(5)(i), (iii)–(v)	Conducting Opacity/VE Observations	Dates and schedule for conducting opacity/VE observations	No.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§63.6(h)(5)(ii)	Opacity Test Duration and Averaging Times	Must have at least 3 hours of observation with 30 6-minute averages	No.
§63.6(h)(6)	Records of Conditions During Opacity/VE Observations	Must keep records available and allow Administrator to inspect	No.
§63.6(h)(7)(i)	Report Continuous Opacity Monitoring System (COMS) Monitoring Data From Performance Test	Must submit COMS data with other performance test data	No.
§63.6(h)(7)(ii)	Using COMS Instead of EPA Method 9	Can submit COMS data instead of EPA Method 9 results even if rule requires EPA Method 9 in appendix A of part 60 of this chapter, but must notify Administrator before performance test	No.
§63.6(h)(7)(iii)	Averaging Time for COMS During Performance Test	To determine compliance, must reduce COMS data to 6-minute averages	No.
§63.6(h)(7)(iv)	COMS Requirements	Owner/operator must demonstrate that COMS performance evaluations are conducted according to §63.8(e); COMS are properly maintained and operated according to §63.8(c) and data quality as §63.8(d)	No.
§63.6(h)(7)(v)	Determining Compliance with Opacity/VE Standards	COMS is probable but not conclusive evidence of compliance with opacity standard, even if EPA Method 9 observation shows otherwise. Requirements for COMS to be probable evidence-proper maintenance, meeting Performance Specification 1 in appendix B of part 60 of this chapter, and data have not been altered	No.
§63.6(h)(8)	Determining Compliance with Opacity/VE Standards	Administrator will use all COMS, EPA Method 9 (in appendix A of part 60 of this chapter), and EPA Method 22 (in appendix A of part 60 of this chapter) results, as well as information about operation and maintenance to determine compliance	No.
§63.6(h)(9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard	No.
§63.6(i)(1)–(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§63.6(j)	Presidential Compliance Exemption	President may exempt any source from requirement to comply with this subpart	Yes.
§63.7(a)(2)	Performance Test Dates	Dates for conducting initial performance testing; must conduct 180 days after compliance date	Yes.
§63.7(a)(3)	CAA Section 114 Authority	Administrator may require a performance test under CAA section 114 at any time	Yes.
§63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test	Yes.
§63.7(b)(2)	Notification of Re-scheduling	If have to reschedule performance test, must notify Administrator of rescheduled date as soon as practicable and without delay	Yes.
§63.7(c)	Quality Assurance (QA)/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing	Yes.
§63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
63.7(e)(1)	Conditions for Conducting Performance Tests	Performance test must be conducted under representative conditions	No, §63.11120(c) specifies conditions for conducting performance tests.
§63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to this subpart and EPA test methods unless Administrator approves alternative	Yes.
§63.7(e)(3)	Test Run Duration	Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used	Yes.
§63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an intermediate or major change, or alternative to a test method	Yes.
§63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; must submit performance test data 60 days after end of test with	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
		the Notification of Compliance Status; keep data for 5 years	
§63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes.
§63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of 40 CFR part 60 apply	Yes.
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring of Flares	Monitoring requirements for flares in §63.11 apply	Yes.
§63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes.
§63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems; must install on each affected source or after combined with another affected source before it is released to the atmosphere provided the monitoring is sufficient to demonstrate compliance with the standard; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup	No.
§63.8(c)(1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices	No.
§63.8(c)(1)(i)–(iii)	Operation and Maintenance of Continuous Monitoring Systems (CMS)	Must maintain and operate each CMS as specified in §63.6(e)(1); must keep parts for routine repairs readily available; must develop a written SSM plan for CMS, as specified in §63.6(e)(3)	No.
§63.8(c)(2)–(8)	CMS Requirements	Must install to get representative emission or parameter measurements; must verify operational status before or at performance test	No.
§63.8(d)	CMS Quality Control	Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years; keep old versions for 5 years after revisions	No.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§63.8(e)	CMS Performance Evaluation	Notification, performance evaluation test plan, reports	No.
§63.8(f)(1)–(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	No.
§63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for continuous emissions monitoring system (CEMS)	No.
§63.8(g)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that cannot be used in average	No.
§63.9(a)	Notification Requirements	Applicability and State delegation	Yes.
§63.9(b)(1)–(2), (4)–(5)	Initial Notifications	Submit notification within 120 days after effective date; notification of intent to construct/reconstruct, notification of commencement of construction/reconstruction, notification of startup; contents of each	Yes.
§63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate	Yes.
§63.9(d)	Notification of Special Compliance Requirements for New Sources	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes.
§63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.
§63.9(g)	Additional Notifications when Using CMS	Notification of performance evaluation; notification about use of COMS data; notification that exceeded criterion for relative accuracy alternative	Yes, however, there are no opacity standards.
§63.9(h)(1)–(6)	Notification of Compliance Status	Contents due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after; when to submit to Federal vs. State authority	Yes, however, there are no opacity standards.
§63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change when notifications must be submitted	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.
§63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source	Yes.
§63.10(b)(1)	Recordkeeping/Reporting	General requirements; keep all records readily available; keep for 5 years	Yes.
§63.10(b)(2)(i)	Records related to SSM	Recordkeeping of occurrence and duration of startups and shutdowns	No.
§63.10(b)(2)(ii)	Records related to SSM	Recordkeeping of malfunctions	No. *See* §63.11125(d) for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunction.
§63.10(b)(2)(iii)	Maintenance records	Recordkeeping of maintenance on air pollution control and monitoring equipment	Yes.
§63.10(b)(2)(iv)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§63.10(b)(2)(v)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§63.10(b)(2)(vi)–(xi)	CMS Records	Malfunctions, inoperative, out-of-control periods	No.
§63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	Yes.
§63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status	Yes.
§63.10(b)(3)	Records	Applicability determinations	Yes.
§63.10(c)	Records	Additional records for CMS	No.
§63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes.
§63.10(d)(3)	Reporting Opacity or VE	What to report and when	No.

Citation	Subject	Brief description	Applies to subpart CCCCCC
	Observations		
§63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes.
§63.10(d)(5)	SSM Reports	Contents and submission	No. *See* §63.11126(b) for malfunction reporting requirements.
§63.10(e)(1)–(2)	Additional CMS Reports	Must report results for each CEMS on a unit; written copy of CMS performance evaluation; two-three copies of COMS performance evaluation	No.
§63.10(e)(3)(i)–(iii)	Reports	Schedule for reporting excess emissions	No.
§63.10(e)(3)(iv)–(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§63.8(c)(7)–(8) and 63.10(c)(5)–(13)	No.
§63.10(e)(3)(iv)–(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§63.8(c)(7)–(8) and 63.10(c)(5)–(13)	No, §63.11130(K) specifies excess emission events for this subpart.
§63.10(e)(3)(vi)–	Excess Emissions Report and	Requirements for reporting excess	No.

Citation	Subject	Brief description	Applies to subpart CCCCCC
(viii)	Summary Report	emissions for CMS; requires all of the information in §§63.10(c)(5)–(13) and 63.8(c)(7)–(8)	
§63.10(e)(4)	Reporting COMS Data	Must submit COMS data with performance test data	No.
§63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.
§63.11(b)	Flares	Requirements for flares	No.
§63.12	Delegation	State authority to enforce standards	Yes.
§63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes.
§63.14	Incorporations by Reference	Test methods incorporated by reference	Yes.
§63.15	Availability of Information	Public and confidential information	Yes.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4184, Jan. 24, 2011]

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Permit

Source Description and Location

Source Name:	Abengoa Bioenergy of Indiana, LLC
Source Location:	8999 West Franklin Rd, Mt. Vernon, IN 47620
County:	Posey
SIC Code:	2869
Operation Permit No.:	T 129-31150-00050
Permit Reviewer:	Kristen Willoughby

Abengoa Bioenergy of Indiana, LLC was issued a Federally Enforceable State Operating Permit (F129-23484-00050) on January 25, 2007. On November 15, 2011, Abengoa Bioenergy of Indiana, LLC submitted an application to the Office of Air Quality (OAQ) for a Part 70 Operating Permit.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

(a) One (1) grain receiving area, approved in 2009 for construction, and consisting of the following:

(1) One (1) truck/rail receiving pit, identified as T-1101, with a rated capacity of 1680 tons of corn per hour and a maximum operating capacity of 1059 tons of corn per hour, controlled by baghouse F-1101, and exhausting through stack S-1101;

(2) One (1) truck receiving pit, identified as T-1102, with a rated capacity of 1120 tons of corn per hour and a maximum operating capacity of 398 tons of corn per hour, controlled by baghouse F-1102, and exhausting through stack S-1102;

(3) Two (2) grain transfer drag conveyors, identified as CV-1101 and CV-1102, with a rated capacity of 1680 tons of corn per hour and 1120 tons of corn per hour and a maximum operating capacity of 1059 tons of corn per hour and 398 tons of corn per hour, controlled by baghouses F-1101 and F-1102, and exhausting through stacks S-1101 and S-1102, respectively; and

(4) Two (2) grain storage silos, identified as T-2001 and T-2002, each with a maximum capacity of 150 tons of corn per hour, controlled by baghouses F-2003A, F-2003B, F-2004A, and F-2004B, and exhausting through stacks B-2003A, B-2003B, B-2004A, and B-2004B, respectively.

(b) One (1) corn scalper, identified as SC-1201, approved in 2009 for construction, with a maximum capacity of 150 tons of corn per hour, controlled by baghouse F-1200, and exhausting through stack B-1200.

(c) Four (4) hammer mill surge bins, identified as T-1201, T-1202, T-1203, T-1204, approved in 2009 for construction, each with a maximum capacity of 117.6 tons of grain per hour, controlled by baghouse F-1200, and exhausting through stack B-1200.

(d) Four (4) hammermills, identified as G-1205, G-1206, G-1207, and G-1208, approved in 2009 for construction, each with a rated capacity of 117.6 tons per hour of grain and a maximum operating capacity of 42 tons per hour of grain, controlled by baghouses F-

1205, F-1206, F-1207, and F-1208, and exhausting through stacks S-1205, S-1206, S-1207, and S-1208, respectively.

(e) Two (2) pellet mills, identified as PM-2251 and PM-2254, approved in 2009 for construction, each with a maximum capacity of 30 tons per hour, controlled by cyclones F-2251 and F-2252, and exhausting through stacks B-2251 and B-2252, respectively.

(f) One (1) DDGS unloading and loading area, approved in 2009 for construction, and consisting of the following:

(1) One (1) DDGS rail to barge unloading operation, identified as EP-2252, with a maximum capacity of 400 tons per hour, controlled by baghouse S-2252, and exhausting through stack S-2252;

(2) One (1) DDGS barge loadout operation, identified as EP-2251, with a maximum capacity of 200 tons per hour, controlled by high efficiency dustless spout filter system DC-2251, and exhausting through stack DC-2251;

(3) One (1) DDGS truck loadout operation, identified as LS-2201, with a rated capacity of 200 tons per hour and a maximum operating capacity of 169 tons per hour, controlled by high efficiency dustless spout filter system LS2201, and exhausting through stack F-2201; and

(4) Three (3) DDGS rail loadout operations, identified as LS-2202A, LS-2202B, and LS-2202C, with a rated capacity of 200 tons per hour, each and a maximum operating capacity of 169 tons of corn per hour, each, controlled by high efficiency dustless spout filter systems LS-2202A, LS-2202B, and LS-2202C, and exhausting through stacks F-2202A, F-2202B, and F-2202C, respectively.

(g) One (1) fermentation process, approved in 2009 for construction, with a maximum throughput rate of 12,000 gallons of anhydrous ethanol per hour, consisting of the following major equipment:

(1) One (1) prefermenter tank, identified as T-1400, using a wet scrubber (S1400) and sodium bisulfite injection for VOC control, exhausting through stack S1400.

(2) Six (6) main fermenters and one (1) beer well, identified as T-1401 through T-1407, using a wet scrubber (S1401), and sodium bisulfite injection for VOC control, exhausting through stack S-1401.

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

(h) One (1) distillation process, approved in 2009 for construction, with a maximum throughput rate of 12,000 gallons of anhydrous ethanol per hour, using a wet scrubber, (S-1504) and sodium bisulfite injection for VOC control, exhausting through stack S-1504, and consisting of the following major equipment:

(1) One (1) beer column identified as C-1510.

(2) One (1) stripping column identified as C-1520.

(3) One (1) rectifying column identified as C-1530.

(4) One (1) four-bottle molecular sieve unit, with associated heat exchangers and pumps.

(5) One (1) degas column identified as C-1500.

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

(i) Four (4) natural gas fired boilers, identified as BL-5001, BL-5002, BL-5003, and BL-5004, approved in 2009 for construction, with a maximum heat input rate of 92.4 MMBtu/hr, each, and exhausting through stacks S-5001, S-5002, S-5003, and S-5004, respectively.

Under NSPS, Subpart Dc, the boilers are considered affected facilities.

(j) Two (2) natural gas fired Swiss Combi "Eco-Dry" Dryer Systems, identified as D-1801A and D-1801B, approved in 2009 for construction, with a maximum heat input rate of 76.7MMBtu/hr and a design throughput rate of 20 tons per hour of DDGS each, with emissions exhausting through stacks ST-1802A and ST-1802B.

Note: The basis of the Swiss Combi Dryer System is an indirect heat drying process using a closed steam loop with thermal oxidation. The DDGS cooler is also integrated into the Eco-Dry system.

Under NSPS, Subpart Dc, the Swiss Combi Dryer Systems are considered affected facilities.

(k) One (1) ethanol and E85 loading rack for trucks and railcars, identified as L-2101D, approved in 2009 for construction, with rated throughput rate of 4,200 gallons per minute for trucks and railcars and a maximum operating capacity of 180,600 gallons per hour for trucks and railcars, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as C-2101, and exhausting through stack S-2101.

Under NSPS, Subpart VVa, equipment (as defined in 40 CFR 60.481a) within a process unit is an affected facility. Under NESHAP, Subpart BBBBBB this is a new affected unit.

(l) One (1) ethanol and E85 loading rack for barges, identified as EP-2501, approved in 2009 for construction, with a maximum throughput rate of 4,200 gallons per minute, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as S-2501, and exhausting through stack S-2501.

Under NSPS, Subpart VVa, equipment (as defined in 40 CFR 60.481a) within a process unit is an affected facility. Under NESHAP, Subpart BBBBBB this is a new affected unit.

New Emission Units and Pollution Control Equipment

The following is a list of the proposed emission units and pollution control devices:

(a) One (1) corn oil separation process, approved in 2012 for construction, with a maximum throughput of 3,500,000 gallons per year, and consisting of the following:

(1) Two (2) tricanter centrifuges, uncontrolled, and exhausting inside.

(2) Four (4) storage tanks, storing corn oil, each with a maximum capacity of 9,500 gallons, and controlled by the distillation scrubber (S-1504).

(3) Six (6) process tanks, uncontrolled, exhausting inside, and consisting of the following:

(A) One (1) 560 gallon tank;

(B) One (1) 270 gallon tank;

(C) One (1) 3,759 gallon tank;

(D) One (1) 1,000 gallon tank;

(E) One (1) 450 gallon tank;

(F) One (1) 400 gallon tank; and

(G) One (1) 205 gallon tank.

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

Insignificant Activities

The source also consists of the following insignificant activities:

(a) One (1) diesel fired stationary fire pump, identified as P-7075B, approved in 2009 for construction, with a maximum power output rate of 460 horsepower, and exhausting through stack P-7075B. [326 IAC 2-8-4]

Under NSPS, Subpart IIII and NESHAP, Subpart ZZZZ, the diesel fire pump is considered a new certified National Fire Protection Association (NFPA) fire pump.

(b) One (1) emergency diesel generator, identified as GN-7000, approved in 2009 for construction, with a maximum power output rate of 1,495 horsepower, and exhausting through stack GN-7000.

Under NSPS, Subpart IIII and NESHAP, Subpart ZZZZ, the emergency diesel generator is considered a new stationary compression ignition internal combustion engine.

(c) Noncontact cooling tower system with natural draft not regulated under a NESHAP.

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

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

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

(g) 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.

(h) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(i) 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 storage tank, identified as T-2104, with a maximum capacity of 128,800 gallons equipped with an internal floating roof for VOC emissions control. [326 IAC 8-4-3] [40 CFR 60, Subpart Kb]

(2) Three (3) tanks for storage of denatured fuel ethanol and/or E-85, identified as T-2102, T-2103, and T-2105 each with a maximum capacity of 1,015,164 gallons, and each equipped with an internal floating roof for VOC emissions control. [40 CFR 60, Subpart Kb]

(3) One (1) fixed-roof anhydrous ethanol off-spec storage tank, identified as T-2101, with a maximum capacity of 39,500 gallons, equipped with an internal floating roof for VOC emissions control.

(4) Two (2) fixed-roof anhydrous ethanol storage tanks (shift tanks), identified as T-2110 and T-2111, each with a maximum capacity of 250,000 gallons, and each equipped with an internal floating roof for VOC emissions control. [40 CFR 60, Subpart Kb]

Under NSPS, Subpart Kb, storage tanks T-2104, T-2102, T-2103, T-2105, T-2110, and T2111 are considered volatile organic liquid storage vessels.

(5) Cook area process equipment, including: one (1) slurry tank (T-1301), one (1) mash cooker (V-1302), two (2) conversion tanks (T-1304 and T-1305), one (1) hot water tank (T-1303), one (1) saccharification flash vessel (V-1306), three (3) mash coolers (E-1311 through E-1313), and three (3) mash trim coolers (E-1515 through E-1517).

(6) Equipment for handling spent grain from the fermentation process, including: one (1) triple effect light evaporation system, one (1) final concentrator, one (1) whole stillage tank (T-1701), one (1) thin stillage tank (T-1600), one (1) intermediate stillage tank (T-1702), one (1) syrup tank (T-1650), and Four (4) stillage decanters (SP-1701 through SP-1704).

(7) One (1) corrosion inhibitor storage tank.

(8) One (1) sulfuric acid tank (T-1911).

(9) One (1) Clean-in place (CIP) system.

(10) Compressed air and dry air systems.

(j) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment.

(1) One (1) gasoline tank, approved in 2009 for construction, with a maximum capacity of 500 gallons and an estimated monthly throughput of 140 gallons.

Under NESHAP, Subpart CCCCCC this is considered a new affected unit.

(k) A petroleum fuel other than gasoline dispensing facility, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less.

(1) One (1) diesel fuel tank, approved in 2009 for construction, with a maximum capacity of 500 gallons and an estimated monthly throughput of 1,100 gallons.

Existing Approvals

The source was issued FESOP Permit No. T129-23484-00050 on January 25, 2007. The source has since received the following approvals:

Permit Type	Permit Number	Issuance Date
Significant Permit Revision	129-27302-00050	June 17, 2009
Administrative Amendment	129-29069-00050	April 14, 2010
Administrative Amendment	129-29519-00050	August 19, 2010

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

The following terms and conditions from previous approvals have been determined no longer applicable; therefore, were not incorporated into this Part 70 Operating Permit:

(a) All construction conditions from all previously issued permits.

Reason not incorporated: All facilities previously permitted have already been constructed; therefore, the construction conditions are no longer necessary as part of the operating permit. Any facilities that were previously permitted but have not yet been constructed would need new pre-construction approval before beginning construction.

(b) All FESOP conditions.

Reason not incorporated: The source applied for a TV permit; therefore, the FESOP conditions are no longer applicable.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Posey County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.
Unclassifiable or attainment effective April 5, 2005, for PM2.5.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient

Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Posey County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Posey County has been classified as attainment for $PM_{2.5}$. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective, June 28, 2011.. Therefore, direct $PM_{2.5}$ and SO_2 emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants
Posey County has been classified as attainment or unclassifiable in Indiana for all other regulated pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

The proposed source includes a grain elevator, an ethanol production operation, and natural gas fired boilers which support the ethanol plant with a total heat input rating of greater than 250 million British thermal units per hour (MMBtu/hr).

(1) EPA published a final rule in the Federal Register on May 1, 2007, that excluded ethanol production facilities, that produce ethanol through natural fermentation, from the major source category "Chemical Process Plants". Therefore, their fugitive emissions, are no longer counted toward determination of PSD applicability.

(2) The fugitive emissions from equipment leaks are not counted toward PSD applicability, because the applicable NSPS, VV was in effect after August 7, 1980.

(3) The fugitive emissions from the grain elevator are not counted toward PSD applicability, because this grain elevator is not part of the source category regulated under the applicable NSPS that was in effect on August 7, 1980.

(4) The natural gas fired boilers with a total heat input rating of greater than 250 MMBtu/hr are considered one of the 28 listed source categories, based on the EPA guidance for “nesting activities”. Therefore, any fugitive emissions from these boilers are counted toward PSD applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Unrestricted Potential Emissions	
Pollutant	Tons/year
PM	> 250
PM_{10}	> 250
$PM_{2.5}$	> 250
SO_2	< 100
VOC	> 250
CO	> 250
NO_x	> 100 < 250
GHGs as CO2e	>100,000
Single HAP	> 10
Total HAP	> 25

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10, PM2.5, VOC, CO, and NOx is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of GHGs is equal to or greater than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit.

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(d) This source has the potential to emit 472,240 tons of biogenic CO_2 per year. On July 20, 2011 U.S. EPA issued a deferral of Biogenic CO_2 emissions from PSD and Title V. Therefore, these CO2 emissions were not included in the listed GHG emissions.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

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

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)									
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP (Acetaldehyde)
Grain Handling	48.99	48.99	48.99	-	-	-	-	-	-	-
DDGS Handling	25.12	25.12	25.12	-	-	-	-	-	-	-
Fermentation & Distillation******	-	-	-	-	-	95.30	-	330,615	7.68	4.16
Boilers	3.02	12.06	12.06	15.87	80.94	8.73	80.94	191,453	3.00	-
Dryers/Swiss Combi Systems	94.61	94.61	94.61	7.12	141.10	71.83	166.44	79,046	11.97	5.78
Ethanol Loadout	-	-	-	-	-	19.99	-	-	1.26	-
Diesel Fire Pump	0.25	0.25	0.25	0.24	3.57	0.28	0.77	132.25	3.12E-03	6.17E-04
Diesel Emergency Generator	0.26	0.15	0.15	0.15	8.97	0.26	2.06	433.55	4.12E-03	6.59E-05
Cooling Tower	19.64	19.64	19.64	-	-	-	-	-	-	-
Corn Oil Separation	-	-	-	-	-	0.08	-	-	3.11E-04	3.11E-04
Storage Tanks****	-	-	-	-	-	3.54	-	-	8.71E-06	4.36E-06
Wet Cake Storage*****	-	-	-	-	-	3.42	-	-	0.16	0.05
Leaks***	-	-	-	-	-	See Note	-	-	0.42	1.46E-03
Total PTE of Entire Source	**191.88**	**200.82**	**200.82**	**23.38**	**234.57**	**200.02**	**240.52**	**600,680**	**24.50**	**9.98**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000 CO_2e	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	100,000 CO_2e	NA	NA

negl. = negligible
*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.
*** Since the source is no longer 1 of the 28 listed source categories fugitive PM/PM10/PM2.5 and VOC emissions no longer count toward the determination of PSD, Emission Offset, and Part 70 Permit applicability. However, fugitive HAP emissions still count toward the determination of Part 70 Permit applicability.
**** 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 is likely the worst case scenario. Therefore, the PTE of VOC of the wet cake storage is not included in the PTE for the entire source.
******CO_2 emissions from fermentation are not counted toward the total greenhouse gases at this time.

(a) This existing source is not a major stationary source for PSD (326 IAC 2-2) because the emissions of each regulated pollutant, excluding GHGs, are less than two hundred fifty (<250) tons per year, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1), and the source has not undertaken a physical change or change in the method of operation on or after July 1, 2011 that resulted in an emissions increase of seventy-five thousand (75,000) tpy CO_2e or more.

(b) On July 20, 2011 U.S. EPA issued a deferral of Biogenic CO_2 emissions from PSD and Title V. Therefore, these CO2 emissions were not included in the listed GHG emissions.

Nested Activity
The table below summarizes the potential to emit, reflecting all limits, of the nested activity's emission units.

Process/ Emission Unit	Potential To Emit of the Nested Activity After Issuance of Renewal (tons/year)									
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP (Acetaldehyde)
Boilers	3.02	12.06	12.06	15.87	80.94	8.73	80.94	191,612	3.00	-
Total PTE of Entire Nested Activity	**3.02**	**12.06**	**12.06**	**15.87**	**80.94**	**8.73**	**80.94**	**191,612**	**3.00**	**-**
PSD Major Source Thresholds	100	100	100	100	100	100	100	100,000 CO_2e	NA	NA

negl. = negligible
*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.

(a) The nested activity is not a major stationary source for PSD (326 IAC 2-2) because the emissions of each regulated pollutant, excluding GHGs, are less than one hundred (<100) tons per year, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1), and the source has not undertaken a physical change or change in the method of operation on or after July 1, 2011, that resulted in an emissions increase of seventy-five thousand (75,000) tons per year of CO_2e or more.

Federal Rule Applicability Determination

NSPS:

(a) This source is not subject to the requirements of the New Source Performance Standard for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971, 40 CFR 60, Subpart D, because each of the four boilers, identified as BL-5001, BL-5002, BL-5003, and BL-5004, has a maximum heat input capacity less than 250 MMBtu/hr. Therefore, the requirements of the NSPS are not included in the permit.

(b) This source is not subject to the requirements of the New Source Performance Standard for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, 40 CFR 60, Subpart Da, because each of the four boilers, identified as BL-5001, BL-5002, BL-5003, and BL-5004, has a maximum heat input capacity less than 250 MMBtu/hr and the units do not generate power for sale. Therefore, the requirements of the NSPS are not included in the permit.

(c) This source is not subject to the requirements of the New Source Performance Standard for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Db, because each of the four boilers, identified as BL-5001, BL-5002, BL-5003, and BL-5004, has a maximum heat input capacity less than 100 MMBtu/hr. Therefore, the requirements of the NSPS are not included in the permit.

(d) This source is subject to the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60, Subpart Dc), which is incorporated by reference as 326 IAC 12. The units subject to this rule include the following:

(1) Four (4) natural gas fired boilers, identified as BL-5001, BL-5002, BL-5003, and BL5004, approved for construction in 2009, with a maximum heat input rate of 92.4 MMBtu/hr, each, and exhausting through stacks S-5001, S-5002, S-5003, and S-5004, respectively.

(2) Two (2) natural gas fired Swiss Combi "Eco-Dry" Dryer Systems, identified as D-1801A and D-1801B, approved for construction in 2009, with a maximum heat input rate of 76.7MMBtu/hr and a design throughput rate of 20 tons per hour of DDGS each, with emissions exhausting through stacks ST-1802A and ST-1802B.

Nonapplicable portions of the NSPS will not be included in the permit. This source is subject to the following portions of Subpart Dc.

(1) 40 CFR 60.40c
(2) 40 CFR 60.41c
(3) 40 CFR 60.48c (a)
(4) 40 CFR 60.48c (g)(2)
(5) 40 CFR 60.48c (i)
(4) 40 CFR 60.48c (j)

(e) This source is subject to the New Source Performance Standards for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (40 CFR 60, Subpart Kb), which is incorporated by reference as 326 IAC 12. The units subject to this rule include the following:

(1) One (1) denaturant storage tank, identified as T-2104, with a maximum capacity of 128,800 gallons equipped with an internal floating roof for VOC emissions control.

(2) Three (3) tanks for storage of denatured fuel ethanol and/or E-85, identified as T-2102, T-2103, and T-2105 each with a maximum capacity of 1,015,164 gallons, and each equipped with an internal floating roof for VOC emissions control.

(3) Two (2) fixed-roof anhydrous ethanol storage tanks (shift tanks), identified as T-2110 and T-2111, each with a maximum capacity of 250,000 gallons~~.~~, and each equipped with an internal floating roof for VOC emissions control.

Nonapplicable portions of the NSPS will not be included in the permit. This source is subject to the following portions of 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 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) are not included for storage vessel T-2101 and all tanks associated with the corn oil extraction process. Tank T-2101 has a capacity greater than 75 cubic meters (19,813 gallons) but less than 151 cubic meters (39,890 gallons) and the stored liquid has a vapor pressures less than 15.0 kPa. The tanks associated with the corn oil extraction process each have a capacity less than 75 cubic meters (19,813 gallons).

(f) 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.

(g) Ethanol is one of the chemicals listed in 40 CFR 60.489. Therefore, this ethanol production plant is subject to the requirements of Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (326 IAC 12, 40 CFR 60.480a - 489a Subpart VVa).

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 VVa.

(1) 40 CFR 60.480a
(2) 40 CFR 60.481a
(3) 40 CFR 60.482-1a
(4) 40 CFR 60.482-2a
(5) 40 CFR 60.482-3a
(6) 40 CFR 60.482-4a
(7) 40 CFR 60.482-5a
(8) 40 CFR 60.482-6a
(9) 40 CFR 60.482-7a
(10) 40 CFR 60.482-8a
(11) 40 CFR 60.482-9a
(12) 40 CFR 60.482-10a
(13) 40 CFR 60.482-11a
(14) 40 CFR 60.483-1a
(15) 40 CFR 60.483-2a
(16) 40 CFR 60.485a
(17) 40 CFR 60.486a
(18) 40 CFR 60.487a
(19) 40 CFR 60.488a
(20) 40 CFR 60.489a

(h) The requirements of New Source Performance Standards for Subpart XX, Standards of Performance for Bulk Gasoline Terminals (326 IAC 12, 40 CFR 60.500 - 506, Subpart XX) are not included in this permit for the ethanol and E85 loading rack for trucks, identified as EP-2210. The loading rack is not considered a bulk gasoline terminal as defined in 40 CFR 60.501.

(i) 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 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). Therefore, the requirements of the NSPS are not included in the permit.

(j) This source is subject to the New Source Performance Standards for Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII), which is incorporated by reference as 326 IAC 12. The units subject to this rule include the following:

(1) One (1) diesel fired stationary fire pump, identified as P-7075B, approved for construction in 2009, with a maximum power output rate of 460 horsepower, and exhausting through stack P-7075B.

(2) One (1) emergency diesel generator, identified as GN-7000, approved for construction in 2009, with a maximum power output rate of 1,495 horsepower, and exhausting through stack GN-7000.

Nonapplicable portions of the NSPS will not be included in the permit. This source is subject to the following portions of Subpart IIII.

(1) 40 CFR 60.4200(a)(2)
(2) 40 CFR 60.4200(a)(3)
(3) 40 CFR 60.4205(b)
(4) 40 CFR 60.4205(c)
(5) 40 CFR 60.4206
(6) 40 CFR 60.4207(a)
(7) 40 CFR 60.4207(b)
(8) 40 CFR 60.4208
(9) 40 CFR 60.4209(a)
(10) 40 CFR 60.4211(a)
(11) 40 CFR 60.4211(c)
(12) 40 CFR 60.4211(e)
(13) 40 CFR 60.4212
(14) 40 CFR 60.4214(b)
(15) 40 CFR 60.4218
(16) 40 CFR 60.4219
(17) Tables 5 and 8

NESHAP:

(k) 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).

(l) 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).

(m) 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.

(n) The requirements of National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) (326 IAC 12, 40 CFR 63.420 - 429, Subpart R) are not included in this permit for the ethanol and E85 loading rack for trucks, identified as L-2101D. The loading rack is not considered a bulk gasoline terminal as defined in 40 CFR 63.421.

(o) The requirements of the National Emission Standards for Tanks - Level 1, 40 CFR 63, Subpart OO, are not included in this permit because there are no subparts of 40 CFR 60, 61, or 63 applicable to this source that reference Subpart OO.

(p) The requirements of the National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process, 40 CFR 63, Subpart SS, are not included in this permit because there are no subparts of 40 CFR Part 63 that reference the use of Subpart SS.

(q) The requirements of the National Emission Standards for Equipment Leaks - Control Level 1, 40 CFR 63, Subpart TT, are not included in this permit because there are no subparts of 40 CFR Part 63 that reference the use of Subpart TT.

(r) The requirements of the National Emission Standards for Equipment Leaks - Control Level 2 Standards, 40 CFR 63, Subpart UU, are not included in this permit because there are no subparts of 40 CFR Part 63 that reference the use of Subpart UU.

(s) The requirements of the National Emission Standards for Storage Vessels (Tanks) - Control Level 2, 40 CFR 63, Subpart WW, are not included in this permit because there are no subparts of 40 CFR Part 63 that reference the use of Subpart WW.

(t) The requirements of the National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline), 40 CFR 63, Subpart EEEE, are not included in this permit because this source is not a major source of HAP emissions.

(u) The requirements of the National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing, 40 CFR 63, Subpart FFFF, are not included in this permit because this source is not a major source of HAP emissions.

(v) This source is subject to the National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ). The units subject to this rule include the following:

(a) One (1) diesel fired stationary fire pump, identified as P-7075B, approved in 2009 for construction, with a maximum power output rate of 460 horsepower, and exhausting through stack P-7075B.

(b) One (1) emergency diesel generator, identified as GN-7000, approved in 2009 for construction, with a maximum power output rate of 1,495 horsepower, and exhausting through stack GN-7000.

Nonapplicable portions of the NESHAP will not be included in the permit. This source is subject to the following portions of Subpart ZZZZ:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585 (a), (c), & (d)
(3) 40 CFR 63.6590 (a)(2)(iii), & (c)(1)
(4) 40 CFR 63.6670
(5) 40 CFR 63.6675
(6) Table 8

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

(w) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial/Commercial/Institutional Boilers and Process Heaters, Subpart DDDDD because it has accepted limits that make it a minor source of hazardous air pollutants.

(x) This source is subject to the National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities (40 CFR 63, Subpart BBBBBB). The compliance date for this source is January 10, 2011. This source is considered a bulk gasoline terminal as defined under 40 CFR 63.11100 becasue it receives and loads gasoline (as defined in 40 CFR 63.11100) by cargo tanks. The units subject to this rule include the following:

(1) One (1) ethanol and E85 loading rack for trucks and railcars, identified as L-2101D, approved in 2009 for construction, with a rated throughput rate of 4,200 gallons per minute for trucks and railcars and a maximum operating capacity of 180,600 gallons per hour for trucks and railcars, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as C-2101, and exhausting through stack S2101.

(2) One (1) ethanol and E85 loading rack for barges, identified as EP-2501, approved in 2009 for construction, with a maximum throughput rate of 4,200 gallons per minute, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as S-2501, and exhausting through stack S-2501.

Non applicable portions of the NESHAP will not be included in the permit. This source is subject to the following portions of Subpart BBBBBB.

(1) 40 CFR 63.11080
(2) 40 CFR 63.11081 (a)(1), (b), (c), (e), (f), (g), (h), (i), (j)
(3) 40 CFR 63.11082 (a), (b)
(4) 40 CFR 63.11083 (a)(2)
(5) 40 CFR 63.11085
(6) 40 CFR 63.11087
(7) 40 CFR 63.11088
(8) 40 CFR 63.11089
(9) 40 CFR 63.11092
(10) 40 CFR 63.11093
(11) 40 CFR 63.11094
(12) 40 CFR 63.11095 (a), (b), (d)
(13) 40 CFR 63.11098
(14) 40 CFR 63.11099
(15) 40 CFR 63.11100
(16) Table 1
(17) Table 2
(18) Table 3

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

(y) This source is subject to the National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities (40 CFR 63, Subpart CCCCCC). The compliance date for this source is January 10, 2011. This source has a gasoline dispensing facility as defined under 40 CFR 63.11132. The unit subject to this rule include the following:

(a) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment.

(1) One (1) gasoline tank, with a maximum capacity of 500 gallons and an estimated monthly throughput of 140 gallons.

Non applicable portions of the NESHAP will not be included in the permit. The emission unit is subject to the following portions of Subpart CCCCCC.

(1) 40 CFR 63.11110
(2) 40 CFR 63.11111 (a), (b), (e), (f), (h), (i), (j), (k)
(3) 40 CFR 63.11112 (a), (b)

(4) 40 CFR 63.11113 (a)(2)
(5) 40 CFR 63.11115
(6) 40 CFR 63.11116
(7) 40 CFR 63.11125 (d)
(8) 40 CFR 63.11130
(9) 40 CFR 63.11131
(10) 40 CFR 63.11132
(11) Table 3

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

(z) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ, for the four (4) natural gas-fired boilers, identified as BL-5002, BL-5003, and BL-5004, because the units do not belong to one of the subcategory of boilers listed in 40 CFR 63.1120.

(aa) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Chemical Manufacturing Area Sources, 40 CFR 63.11494, Subpart VVVVVV. The source has determined that the feedstocks do not contain any of the HAPs listed in Table 1 to this subpart. Acetaldhyde, which is listed in Table 1 is produced as a trace byproduct in the fermentation process. However, the source has determined that no HAPs as listed in Table 1 to this subpart are present in the process fluids at concentrations greater than 0.1 percent for carcinogens, as defined by the Occupational Safety and Health Administration at 29 CFR 1910.1200(d)(4), and greater than 1.0 percent for noncarcinogens.

(bb) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Sources: Chemical Preparations Industry, 40 CFR 63.11579, Subpart BBBBBBB, are not included in the permit, since this source does not operate a chemical preparations facility as defined in 40 CFR 63.11588.

CAM:

(cc) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets the following criteria:

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

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

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

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit and specified pollutant subject to CAM:

PM10 / PM2.5							
Emission Unit / Pollutant	**Control Device Used**	**Emission Limitation (Y/N)**	**Uncontrolled PTE (tons/year)**	**Controlled PTE (tons/year)**	**Major Source Threshold (tons/year)**	**CAM Applicable (Y/N)**	**Large Unit (Y/N)**
Truck/Rail Grain Receiving and Grain Conveying (T-1101, CV-	F-1101	Y	450.51	4.51	100	Y	N

PM10 / PM2.5							
Emission Unit / Pollutant	**Control Device Used**	**Emission Limitation (Y/N)**	**Uncontrolled PTE (tons/year)**	**Controlled PTE (tons/year)**	**Major Source Threshold (tons/year)**	**CAM Applicable (Y/N)**	**Large Unit (Y/N)**
1101)							
Truck Grain Receiving and Grain Conveying (T-1102, CV-1102)	F-1102	Y	187.71	1.88	100	Y	N
Grain Storage (T-2001)	F-2003A& F-2003B	Y	37.54	0.38	100	N	N
Grain Storage (T-2002)	F-2004A & F-2004B	Y	37.54	0.38	100	N	N
Surge Bins (T-1201, T-1202, T-1203, T-1204)	F-1200	Y	18.77	0.19	100	N	N
Hammermill (G-1205)	F-1205	Y	112.63	1.13	100	Y	N
Hammermill (G-1206)	F-1206	Y	112.63	1.13	100	Y	N
Hammermill (G-1207)	F-1207	Y	112.63	1.13	100	Y	N
Hammermill (G-1208)	F-1208	Y	112.63	1.13	100	Y	N
Pellet Mill (PM-2251)	F-2251	Y	225.26	2.25	100	Y	N
Pellet Mill (PM-2254)	F-2252	Y	225.26	2.25	100	Y	N
DDGS Rail to Barge Unloading (EP-2252)	S-2252	Y	450.51	4.51	100	Y	N
DDGS Barge Loadout (EP-2251)	DC-2251	Y	281.60	2.82	100	Y	N
DDGS Truck Loadout (L-2201)	F-2201	Y	26.30	0.26	100	N	N
DDGS Rail Loadout (LS-2202A)	F-2202A	Y	26.30	0.26	100	N	N
DDGS Rail Loadout (LS-2202B)	F-2202B	Y	26.30	0.26	100	N	N
DDGS Rail Loadout (LS-2202C)	F-2202C	Y	26.30	0.26	100	N	N
Swiss Combi Dryer System (D-1801A)	D-1801A	Y	946.08	47.30	100	Y	N
Swiss Combi Dryer System (D-1801B)	D-1801B	Y	946.08	47.30	100	Y	N

Note - The 2 Swiss Combi Dryer Systems are subject to 40 CFR 60, Subpart Dc which does have particulate limits. However, these units are not subject to the particulate limits in 40 CFR 60, Subpart Dc. Therefore, CAM applies for these units.

VOC							
Emission Unit / Pollutant	**Control Device Used**	**Emission Limitation (Y/N)**	**Uncontrolled PTE (tons/year)**	**Controlled PTE (tons/year)**	**Major Source Threshold (tons/year)**	**CAM Applicable (Y/N)**	**Large Unit (Y/N)**
Prefermenter Tank (T-1400)	S-1400	Y	733.21	14.66	100	Y	N
Main Fermenters (T-1401 - T-1407)	S-1401	Y	3689.71	73.79	100	Y	N
Distillation Process (C-1510, C-1520, C-1530, C-1500)	S-1504	Y	342.08	6.84	100	Y	N
Swiss Combi Dryer System (D-1801A)	D-1801A	Y	1795.80	35.92	100	Y	N
Swiss Combi Dryer System (D-1801B)	D-1801B	Y	1795.80	35.92	100	Y	N
Ethanol & E85 Loading Rack for Trucks/Rail (L-2101D)	C-2101	Y	6,863	19.99	100	Y	N
Ethanol & E85 Loading Rack for Barges (EP-2501)	S-2501	Y	4,305	19.99	100	Y	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to T-1101, CV-1101, T-1102, CV-1102, G-1205, G-1206, G-1207, G-1208, PM-2251, PM-2254, EP-2252, EP-2251, D-1801A, and D-1801B for PM10 and PM2.5 upon issuance of the Title V Renewal. A CAM plan must be submitted as part of the Renewal application.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to T-1400 - T-1407, C-1510, C-1520, C-1530, C-1500, D-18021, D-1801B, L-2101D, and EP-2501 for VOC upon issuance of the Title V Renewal. A CAM plan must be submitted as part of the Renewal application.

State Rule Applicability Determination

326 IAC 1-5-2 (Emergency Reduction Plans)
The source is subject to 326 IAC 1-5-2 since it has the potential to emit greater than one hundred (100) tons per year of particulate matter.

326 IAC 1-6-3 (Preventive Maintenance Plan)
The source is subject to 326 IAC 1-6-3.

326 IAC 1-7 (Stack Height Provisions)
Pursuant to 326 IAC 1-7, the source shall comply with 326 IAC 1-7-3 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.

326 IAC 2-2 (PSD)
In order to make the requirement of 326 IAC 2-2 (PSD) not applicable, the source shall comply with the following emission limitations:

(a) The PM, PM10, and PM2.5 emissions from the source shall not exceed the emission limits listed in the table below:

Unit Description	Baghouse ID	PM Emission Limit (lbs/hr)	PM10 Emission Limit (lbs/hr)	PM2.5 Emission Limit (lbs/hr)
Truck/Rail Receiving Pit and Grain Conveyor (T-1101 and CV-1101)	F-1101	3.09	3.09	3.09
Truck Receiving Pit and Grain Conveyor (T-1102 and CV-1102)	F-1102	1.29	1.29	1.29
Grain Storage Silo (T-2001)	F-2003A	0.13	0.13	0.13
Grain Storage Silo (T-2001)	F-2003B	0.13	0.13	0.13
Grain Storage Silo (T-2002)	F-2004A	0.13	0.13	0.13
Grain Storage Silo (T-2002)	F-2004B	0.13	0.13	0.13
Corn Scalper and Hammer Mill Surge Bins (SC-1201 and T-1201 through T-1204)	F-1200	0.13	0.13	0.13
Hammermill (G-1205)	F-1205	0.77	0.77	0.77
Hammermill (G-1206)	F-1206	0.77	0.77	0.77
Hammermill (G-1207)	F-1207	0.77	0.77	0.77
Hammermill (G-1208)	F-1208	0.77	0.77	0.77
Pellet Mill (PM-2251)	F-2251	1.54	1.54	1.54
Pellet Mill (PM-2254)	F-2252	1.54	1.54	1.54
DDGS Rail to Barge Unloading (EP-2252)	S-2252	3.09	3.09	3.09
DDGS Barge Loadout (EP-2251)	DC-2251	1.93	1.93	1.93
DDGS Truck Loadout (LS-2201)	F-2201	0.18	0.18	0.18
DDGS Rail Loadout (LS-2202A)	LS-2202A	0.18	0.18	0.18
DDGS Rail Loadout (LS-2202B)	LS-2202B	0.18	0.18	0.18
DDGS Rail Loadout (LS-2202C)	LS-2202C	0.18	0.18	0.18
Swiss Combi Dryer System (D-1801A)	D1802A	0.54 lb/ton	0.54 lb/ton	0.54 lb/ton
Swiss Combi Dryer System (D-1801B)	D1802B	0.54 lb/ton	0.54 lb/ton	0.54 lb/ton

(1) The Swiss Combi Dryer Systems (D-1801A and D-1801B) shall only burn natural gas.

(2) The throughput of DDGS to the Swiss Combi Dryer Systems (D-1801A and D-1801B) shall be limited to 330,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with the above limits, in conjunction with the potential to emit PM, PM10, and PM2.5 from all other emission units at this source, shall limit the source-wide total potential to emit of PM, PM10, and PM2.5 to less than 250 tons per 12 consecutive month period, each, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(b) The VOC emissions from the source shall not exceed the emission limits listed in the table below:

Process /Control Device ID	VOC Limit (lb/hr)
Pre-Fermentation Scrubber (S-1400)	4.50
Fermentation Scrubber (S-1401)	20.00
Distillation Scrubber (S-1504)	2.50
Swiss Combi Dryer System (D-1801A)	0.41 lb/ton
Swiss Combi Dryer System (D-1801B)	0.41 lb/ton
Ethanol Loading Rack (C-2101)	0.2946 lb/kgal
Ethanol Loading Rack (S-2501)	0.2946 lb/kgal

(1) The Swiss Combi Dryer Systems (D-1801A and D-1801B) shall only burn natural gas.

(2) The throughput of DDGS to the Swiss Combi Dryer Systems (D-1801A and D-1801B) shall be limited to 330,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(3) The combined total denatured ethanol and E85 load-out rate shall not exceed 135,714,290 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

(4) The Permittee shall use a carbon adsorption/absorption hydrocarbon vapor recovery system identified as C-2101 to control the emissions from ethanol loading to trucks and railcars (L-2101D).

(5) The Permittee shall use a carbon adsorption/absorption hydrocarbon vapor recovery system identified as S-2501 to control the emissions from ethanol loading to barges (EP-2501).

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

(7) The railcars, trucks, and barges shall not use vapor balance services.

Compliance with the above limits, in conjunction with the potential to emit VOC from all other emission units at this source, shall limit the source-wide total potential to emit of VOC to less than 250 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(c) The NOx emissions from the source shall not exceed the emission limits listed below:

(1) The boilers shall only burn natural gas.

(2) The input of natural gas to the boilers shall be limited to 3174.2 MMCF per twelve (12) consecutive month period, with compliance determined at the end of each month.

(3) NOx emissions shall not exceed 51.0 pounds per MMCF.

Compliance with the above limits, in conjunction with the potential to emit NOx from all other emission units at this source, shall limit the source-wide total potential to emit of

NOx to less than 250 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

Compliance with the above limits, shall limit the total potential to emit of NOx from the boilers to less than 100 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(d) The CO emissions from the source shall not exceed the emission limits listed below:

(1) The boilers shall only burn natural gas.

(2) The input of natural gas to the boilers shall be limited to 3174.2 MMCF per twelve (12) consecutive month period, with compliance determined at the end of each month.

(3) CO emissions shall not exceed 51.0 pounds per MMCF.

(4) The Swiss Combi Dryer Systems (D-1801A and D-1801B) shall only burn natural gas.

(5) The throughput of DDGS to the Swiss Combi Dryer Systems (D-1801A and D-1801B) shall be limited to 330,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(6) CO emissions shall not exceed 0.95 lb/ton for each stack (ST-1802A and ST-1802B).

Compliance with the above limits, in conjunction with the potential to emit CO from all other emission units at this source, shall limit the source-wide total potential to emit of CO to less than 250 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

Compliance with the above limits, shall limit the total potential to emit of CO from the boilers to less than 100 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(e) The SO2 emissions from the source shall not exceed the emission limits listed below:

(1) The Swiss Combi Dryer Systems (D-1801A and D-1801B) shall only burn natural gas.

(2) The throughput of DDGS to the Swiss Combi Dryer Systems (D-1801A and D-1801B) shall be limited to 330,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(3) SO2 emissions shall not exceed 0.0106 lb/MMBtu for each stack (ST-1802A and ST-1802B).

Compliance with the above limits, in conjunction with the potential to emit SO2 from all other emission units at this source, shall limit the source-wide total potential to emit of SO2 to less than 250 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The unlimited potential to emit of HAPs from the source is greater than ten (10) tons per year for any single HAP and/or greater than twenty-five (25) tons per year of a combination of HAPs. However, the source shall limit the source-wide potential to emit of HAPs to less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, the source is not subject to the requirements of 326 IAC 2-4.1.

The single and total HAP emissions from each of following operations shall not exceed the pound per hour limit listed in the table below:

Emission Unit ID	Emission Unit Description	Acetaldehyde Limit (lbs/hr)	Total HAP Limit (lbs/hr)
S-1400	Pre-Fermentation	0.30	0.46
S-1401	Fermentation	0.45	1.04
S-1504	Distillation	0.20	0.27
D-1801A	Swiss Combi Dryer System (D-1801A)	0.65	1.37
D-1801B	Swiss Combi Dryer System (D-1801B)	0.65	1.37

(a) The Swiss Combi Dryer Systems (D1802A and D1802B) shall only burn natural gas.

(b) The throughput of DDGS to the Swiss Combi Dryer Systems (D-1801A and D-1801B) shall be limited to 330,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with the above HAP limits in conjunction with the potential to emit HAPs from other emission units at the source, shall limit the HAP emissions from the entire source to less than 10 tons per twelve (12) consecutive month period for a single HAP and less than 25 tons per twelve (12) consecutive month period for combined HAPs and render 326 IAC 2-4.1 (MACT) not applicable.

326 IAC 2-6 (Emission Reporting)
Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). In accordance with the compliance schedule in 326 IAC 2-6-3, an emission statement must be submitted triennially. The first report is due no later than July 1, 2015, and subsequent reports are due every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 2-8-4 (FESOP)
The Permittee has applied to transition from a FESOP to a Part 70 Operating Permit. Limits established in the FESOP in order to limit the PTE of PM10, PM2.5, VOC, CO, SO2, and/or NOx to less than the Part 70 Operating Permit Program thresholds of 100 tons per year are no longer applicable. Emission limits are still included in the permit in order to render other rule requirements not applicable as described elsewhere in this technical support document.

326 IAC 5-1 (Opacity Limitations)
This source is subject to the opacity limitations specified in 326 IAC 5-1-2(1)

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 source is subject to the requirements of 326 IAC 6-5, because the potential fugitive particulate emissions from grain receiving and DDGS handling and storage are each greater than 25 tons per year. Pursuant to 326 IAC 6-5, fugitive particulate matter emissions shall be controlled according to the Fugitive Dust Control Plan, which is included as Attachment A to the permit.

326 IAC 7-1.1 Sulfur Dioxide Emission Limitations
This source is not subject to 326 IAC 326 IAC 7-1.1 because the source wide SO_2 PTE is less than 25 tons.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements (BACT))
The source has combined potential VOC emissions from the fermentation process, distillation process, Swiss Combi Dryer Systems, and ethanol loadout operations greater than 25 tons per year. However, the fermentation process, distillation process, Swiss Combi Dryer Systems, and ethanol loadout operations at this source are subject to the requirements of 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills). Therefore these operations are not subject to the requirements of 326 IAC 8-1-6 (BACT).

326 IAC 8-4-4 (Bulk Gasoline Terminals)
The source does not operate a bulk gasoline terminal, as defined in 326 IAC 1-2-8, because it does not deliver gasoline to bulk gasoline plants or to commercial or retail accounts primarily by transport. Therefore, the requirements of 326 IAC 8-4-4 are not applicable.

326 IAC 8-4-5 (Bulk Gasoline Plants)
The source does not operate a bulk gasoline plant, as defined in 326 IAC 1-2-7, because it does not dispense gasoline via account trucks to local farms, businesses and service stations. Therefore, the requirements of 326 IAC 8-4-5 are not applicable.

<u>Grain Receiving and DDGS Handling Operations</u>

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

Unit ID	Unit Description	Max. Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
T-1101	Truck/Rail Receiving Pit	1059	78.3
T-1102	Truck Receiving Pit	398	66.3
CV-1101	Grain Conveyor	1059	78.3
CV-1102	Grain Conveyor	398	66.3
T-2001	Grain Storage Silo	140	54.7
T-2002	Grain Storage Silo	140	54.7
SC-1201	Corn Scalper	150	55.4
T-1201 through T-1204	Hammer Mill Surge Bins	117.6, each	52.9, each
G-1205	Hammermill	42	43.0
G-1206	Hammermill	42	43.0
G-1207	Hammermill	42	43.0
G-1208	Hammermill	42	43.0
PM-2251	Pellet Mill*	30	40.0
PM-2254	Pellet Mill*	30	40.0
EP-2252	DDGS Rail to Barge Unloading	400	66.3

Unit ID	Unit Description	Max. Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
EP-2251	DDGS Barge Loadout	200	58.5
LS-2201	DDGS Truck Loadout	169	56.7
LS-2202A	DDGS Rail Loadout	169	56.7
LS-2202B	DDGS Rail Loadout	169	56.7
LS-2202C	DDGS Rail Loadout	169	56.7

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

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

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

or

Interpolation and extrapolation 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

(b) 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.

(c) According to the emission calculations (see Appendix A), the potential to emit PM before control from the truck receiving pit and grain conveyor, grain storage silos, hammer mill surge bins and corn scalper, hammermills and DDGS truck, rail, and barge loadout are less than the emission limits shown above; therefore these operations are capable of complying with 326 IAC 6-3-2 without the use of a control device. The potential to emit PM after control from the truck/rail receiving pit and grain conveyor, pellet mills, and DDGS rail to barge unloading are less than the emission limit above. Therefore, in order to comply with this limit, baghouses F-1101, S-2252, and cyclones F-2251 and F-2252 shall be in operation at all times when the truck/rail receiving pit and grain conveyor, pellet mills, and DDGS rail to barge unloading are in operation.

Fermentation and Distillation Processes

326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills)
On February 20, 2007, IDEM, OAQ adopted a new rule (326 IAC 8-5-6) for fuel grade ethanol production at dry mills. This facility modified the fuel grade ethanol production plant after April 1, 2007 and has a combined potential VOC emissions from the fermentation process, distillation process, DDGS dryers, and ethanol loadout operation greater than 25 tons per year. As a result, the fermentation and distillation processes at this source are subject to the requirements in 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills). Therefore, the fermentation and distillation processes at this source are not subject to the requirements of 326 IAC 8-1-6 (BACT). The Permittee 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 and distillation processes with wet scrubbers. Therefore, the following conditions apply:

(1) The VOC emissions from the fermentation and distillation processes shall be controlled by wet scrubbers, identified as S-1400, S-1401, and S-1504.

(2) The overall efficiency for each of the wet scrubbers S-1400, S-1401, and S-1504 (including the capture efficiency and absorption efficiency), shall be at least 98%, or the VOC outlet concentration shall not exceed 20 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 the wet scrubbers S-1400, S-1401, and S-1504:

(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.

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)(4) = 369.6 MMBtu/hr. Therefore, the PM emission limit for each of the boilers identified as BL-5001, BL-5002, BL-5003, and BL-5004 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 21.62 lbs/hr (0.234 lbs/MMBtu x 92.4 MMBtu/hr = 21.62 lbs/hr) of PM emissions from each of the boilers identified as BL-5001, BL-5002, BL-5003, and BL-5004. According to the emission calculations in Appendix A, the total PM emissions from BL-5001, BL-5002, BL-5003, and BL-5004 are 0.72 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)
See Federal Rule Applicability Section of this TSD.

326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

DDGS Drying and Cooling Systems

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from each of 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)
D-1801A	20	30.5
D-1801B	20	30.5

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

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

$E = 4.10\ P^{0.67}$ 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 before control from the DDGS drying and cooling systems are greater than the emission limits shown above; therefore, in order to comply with this limit, the thermal oxidizers shall be in operation at all times when the DDGS drying and cooling systems are in operation.

326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills)
On February 20, 2007, IDEM, OAQ adopted a new rule (326 IAC 8-5-6) for fuel grade ethanol production at dry mills. The facility modified the fuel grade ethanol production plant after April 1, 2007 and has a combined potential VOC emissions from the fermentation process, distillation process, DDGS dryers, and ethanol loadout operation greater than 25 tons per year. As a result, the DDGS dryers at this source are subject to the requirements in 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills). Therefore, the DDGS dryers at this source are not subject to the requirements of 326 IAC 8-1-6 (BACT). The Permittee 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 DDGS dryers by thermal oxidation. Therefore, the following conditions apply:

(1) The VOC emissions from the Swiss Combi Dryer Systems (D-1801A and D-1801B) shall be controlled by thermal oxidation.

(2) The overall efficiency for the Swiss Combi Dryer Systems, identified as D-1801A and D-1801B, (including the capture efficiency and destruction 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 the Swiss Combi Dryer Systems, identified as D-1801A and D-1801B:

(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 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.

326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

Ethanol Loading Racks (Ethanol Barge Loadout, Truck Loadout and Ethanol Rail Loadout)

326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills)
On February 20, 2007, IDEM, OAQ adopted a new rule (326 IAC 8-5-6) for fuel grade ethanol production at dry mills. The facility modified the fuel grade ethanol production plant after April 1, 2007 and has a combined potential VOC emissions from the fermentation process, distillation process, DDGS dryers, and ethanol loadout operation greater than 25 tons per year. As a result, the ethanol loadout operations at this source are subject to the requirements in 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills). Therefore, the ethanol loadout operations at this source are not subject to the requirements of 326 IAC 8-1-6 (BACT).

Pursuant to 326 IAC 8-5-6, the Permittee may use a thermal oxidizer, wet scrubber, or enclosed flare to control VOC emissions from the ethanol loadout operations. In FESOP No. 129-23484-00050, issued on January 25, 2007, the source was required pursuant to 326 IAC 8-1-6 (BACT) to control VOC emissions from the ethanol loadout operations using two (2) enclosed flares.

However, the source has requested to use two carbon adsorption/absorption hydrocarbon vapor recovery systems, identified as C-2101 and S-2501 to control VOC emission from the ethanol truck and rail loading rack (L-2101D) and the ethanol barge loading rack (EP-2501) in lieu of the requirement to use enclosed flares. Pursuant to Indiana Code 13-14-8-8, IDEM allows sources to request a variance from a rule if they believe it will impose an "undue hardship or burden" upon the source. As a result, the Permittee submitted a request for a variance from the requirements of 326 IAC 8-5-6 for the ethanol loading racks on February 23, 2009.

(a) Pursuant to Commissioner's Order #2009-OAQ-01 and Variance issued on April 29, 2009, in lieu of the requirement to control VOC emissions from the ethanol loading racks as specified in 326 IAC 8-5-6, the Permittee shall control the VOC emissions from the ethanol loading racks with carbon adsorption/absorption hydrocarbon vapor recovery systems. Therefore, the following conditions apply:

(1) The Permittee shall use a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as C-2101 to control the emissions from ethanol loading to trucks and railcars (L-2101D).

(2) The Permittee shall use a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as S-2501 to control the emissions from ethanol loading to barges (EP-2501).

(3) The overall efficiency for each of the carbon adsorption/absorption hydrocarbon vapor recovery systems, C-2101 and S-2501 (including the capture efficiency and adsorption/absorption efficiency) shall be at least 98%.

(4) The carbon adsorption/absorption hydrocarbon vapor recovery systems (C-2101 and S-2501) shall be in operation and control emissions from the ethanol loading systems (L-2101D and EP-2501) at all times when these units are in operation.

(5) 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.

(6) The Permittee shall monitor and record the carbon bed regeneration pressure for each carbon adsorption/absorption hydrocarbon vapor recovery system (C-2101 and S-2501) when the ethanol loading systems (L-2101D and EP-2501) are in operation at least once per day. The carbon bed regeneration pressure for each carbon adsorption/absorption hydrocarbon vapor recovery system (C-2101 and S-2501) shall achieve 3 inches Hg during the regeneration cycle of the carbon beds.

(7) The Permittee shall monitor and record the high adsorber bed temperature for each carbon adsorption/absorption hydrocarbon vapor recovery system (C-2101 and S-2501) when the ethanol loading systems (L-2101D and EP-2501) are in operation at least once per day. The high adsorber bed temperature for each carbon adsorption/absorption hydrocarbon vapor recovery system (C-2101 and S-2501) shall be maintained at a temperature below 200°F.

(8) The Permittee shall maintain records of the carbon bed regeneration pressure and high adsorber bed temperature for each carbon adsorption/absorption hydrocarbon vapor recovery system (C-2101 and S-2501).

<u>Cooling Tower (Insignificant Activity)</u>

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.

<u>Storage Tanks (Insignificant Activities)</u>

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)
The denaturant storage tank (T-2104) 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. T-2104 will be equipped with an internal floating roof.

(a) Pursuant to 326 IAC 8-4-3(b)(1)(B), the denaturant storage tank (T-2104) 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 denaturant storage tank (T-2104):

(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 8-4-6 (Gasoline Dispensing Facilities)
The 500 gallon storage tank which dispenses gasoline to motor vehicle tanks or portable containers dispenses less than 10,000 gallons per month. Therefore, the requirements of 326 IAC 8-4-6 are not applicable to this source.

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.

Emergency Diesel Generator (Insignificant Activity)

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
The emergency generator is not subject to 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating), because, pursuant to 326 IAC 1-2-19, this emission unit does not meet the definition of an indirect heating unit.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
The emergency generator is exempt from the requirements of 326 IAC 6-3, because it is does not participate in the production of a product.

326 IAC 9-1-1 (Carbon Monoxide Emission Limits)
The emergency generator is not subject to 326 IAC 9-1-1 (Carbon Monoxide Emission Limits) because there are no applicable emission limits for the source under 326 IAC 9-1-2.

326 IAC 10-1-1 (Nitrogen Oxides Control)
The emergency generator is not subject to 326 IAC 10-1-1 (Nitrogen Oxides Control) because the source is not located in Clark or Floyd counties.

326 IAC 10-5-1 (Nitrogen Oxide Reduction Program for Internal Combustion Engines (ICE))
The emergency generator is not subject to 326 IAC 10-5-1 (Nitrogen Oxide Reduction Program for Internal Combustion Engines (ICE)) because it is not a large NOx SIP Call engines, as defined in 326 IAC 10-5-2(4).

326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.

326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

Diesel Fire Pump (Insignificant Activity)

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 (EP-1075) is 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 (EP-1075) is not subject to the requirements of 326 IAC 10-1.

326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.

326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

Other Insignififcant Activities

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emissions from each grinding and machining operation 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 shallbe calculated using the following equation:

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

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

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

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

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The Compliance Determination Requirements and Monitoring Requirements applicable to this source are as follows:

(1) The grain and DDGS handling processes have applicable compliance determination requirements as specified below:

Particulate Control

(a) The baghouses for particulate control shall be in operation and control emissions from the emission units at all times that the emission units are in operation as listed in the table below, when these units are in operation:

Unit Description	Control Device ID
Truck/Rail Receiving Pit and Grain Conveyor (T-1101 and CV-1101)	F-1101
Truck Receiving Pit and Grain Conveyor (T-1102 and CV-1102)	F-1102
Grain Storage Silo (T-2001)	F-2003A F-2003B
Grain Storage Silo (T-2002)	F-2004A F-2004B
Corn Scalper and Hammer Mill Surge Bins (SC-1201 and T-1201 through T-1204)	F-1200
Hammermill (G-1205)	F-1205
Hammermill (G-1206)	F-1206
Hammermill (G-1207)	F-1207
Hammermill (G-1208)	F-1208
Pellet Mill (PM-2251)	F-2251
Pellet Mill (PM-2254)	F-2252
DDGS Rail to Barge Unloading (EP-2252)	S-2252
DDGS Barge Loadout (EP-2251)	DC-2251
DDGS Truck Loadout (LS-2201)	LS-2201
DDGS Rail Loadout (LS-2202A)	LS-2202A
DDGS Rail Loadout (LS-2202B)	LS-2202B
DDGS Rail Loadout (LS-2202C)	LS-2202C

(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.

(c) Testing

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing
Truck/Rail Receiving Pit and Grain Conveyor (T-1101 and CV-1101)	F-1101	5 yrs from most recent valid compliance demonstration	PM, PM_{10}, $PM_{2.5}$	Once every 5 years
Truck Receiving Pit and Grain Conveyor (T-1102 and CV-1102)	F-1102	5 yrs from most recent valid compliance demonstration	PM, PM_{10}, $PM_{2.5}$	Once every 5 years

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing
Grain Storage Silo (T-2001)	F-2003A F-2003B	5 yrs from most recent valid compliance demonstration	PM, PM_{10}, $PM_{2.5}$	Once every 5 years
Grain Storage Silo (T-2002)	F-2004A F-2004B	5 yrs from most recent valid compliance demonstration	PM, PM_{10}, $PM_{2.5}$	Once every 5 years
Corn Scalper and Hammer Mill Surge Bins (SC-1201 and T-1201 through T-1204	F-1200	5 yrs from most recent valid compliance demonstration	PM, PM_{10}, $PM_{2.5}$	Once every 5 years
Hammermills (G-1205, G-1206, G-1207, G-1208)	F-1205 - F-1208	5 yrs from most recent valid compliance demonstration	PM, PM_{10}, $PM_{2.5}$	Once every 5 years
Pellet Mill (PM-2251, PM-2254)	F-2251, F-2252	5 yrs from most recent valid compliance demonstration	PM, PM_{10}, $PM_{2.5}$	Once every 5 years
DDGS Rail to Barge Unloading (EP-2252)	S-2252	180 days of startup	PM, PM_{10}, $PM_{2.5}$	Once every 5 years
DDGS Barge Loadout (EP-2251)	DC-2251	180 days of startup	PM, PM_{10}, $PM_{2.5}$	Once every 5 years
DDGS Truck and Rail Loadout (LS-2201, LS-2202A, LS-2202B, LS-2202C)	LS-2201, LS-2202A, LS-2202B, LS-2202C	5 yrs from most recent valid compliance demonstration	PM, PM_{10}, $PM_{2.5}$	Once every 5 years

(2) The grain and DDGS handling processes have applicable compliance monitoring requirements as specified below:

Parametric Monitoring

Control	Parameter	Frequency	Range	Excursions and Exceedances
F-1101, F-1102, F-2003A, F-2003B, F-2004A, F-2004B, F-1200,	Water Pressure Drop	Daily	1.0 to 6.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
S-1205, S-1206, S-1207, and S-1208	Water Pressure Drop	Daily	1.0 to 11.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
S-2252, DC-2251, LS-2201, LS-2202A, LS-2202B, and LS-2202C	Water Pressure Drop	Daily	0.25 to 6.0 inches	Response Steps

Control	Parameter	Frequency	Range	Excursions and Exceedances
	Visible Emissions		Normal-Abnormal	
F-2251, F-2252	Visible Emissions	Daily	Normal-Abnormal	Response Steps

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.

These monitoring conditions are necessary because the baghouses and filter need to operate properly to ensure compliance with 326 IAC 6-3 (Process Operations), 326 IAC 2-2 (PSD), and 326 IAC 2-7 (Part 70).

(3) The fermentation and distillation processes have applicable compliance determination requirements as specified below:

(a) The scrubbers (S-1400, S-1401, and S-1504) shall be in operation and control emissions from the fermentation and distillation processes at all times that these units are in operation.

(b) The sodium bisulfite injection systems shall be in operation and injecting sodium bisulfite into scrubbers S-1400, S-1401, and S-1504 at all times that the fermentation and distillation processes are in operation.

(c) Testing

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing
Pre-Fermentation Process	S-1400	5 yrs from most recent valid compliance demonstration	VOC, Acetaldehyde	Once every 5 years
Fermentation Process	S-1401	5 yrs from most recent valid compliance demonstration	VOC, Acetaldehyde	Once every 5 years
Distillation Process	S-1504	5 yrs from most recent	VOC, Acetaldehyde	Once every 5 years

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing
		valid compliance demonstration		

(4) The fermentation and distillation processed have applicable compliance monitoring requirements as follows:

Parametric Monitoring

Control	Parameter	Frequency	Range	Excursions and Exceedances
S-1400, S-1401	Water Pressure Drop	Daily	1.0 to 12.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
	Flow Rate		Minumum rate observed in most recent stack test	
	Sodium Bisulfite Injection Rate	Continuous	Rate observed in most recent stack test	
S-1504	Water Pressure Drop	Daily	1.0 to 6.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
	Flow Rate		Minumum rate observed in most recent stack test	
	Sodium Bisulfite Injection Rate	Continuous	Rate observed in most recent stack test	

Scrubber Failure
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 shall be considered a deviation from this permit. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition.

These monitoring conditions are necessary because the scrubbers need to operate properly to ensure compliance with 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants), 326 IAC 2-2 (PSD), 326 IAC 8-5-6 (Fuel Grade Ethanol Production), and 326 IAC 2-7 (Part 70).

(5) The boilers have applicable compliance determination requirements as specified below:

Testing

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing
BL-5001, BL-5002, BL-5003, BL-5004	none	5 yrs from most recent valid compliance demonstration	NOx and CO	Once every 5 years

(6) The Swiss Combi “Eco-Dry” Dryer Systems have applicable compliance determination requirements as specified below:

(a) The Swiss Combi Dryer Systems (D-1801A and D-1801B) shall be in operation and control emissions from the DDGS dryers and coolers at all times that these units are in operation.

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing
D-1801A, D-1801B	D-1801A, D-1801B	5 yrs from most recent valid compliance demonstration	PM, PM10, PM2.5, VOC, NOx, CO, and Acetaldehyde	Once every 5 years

(7) The Swiss Combit "Eco-Dry" Dryer Systems have applicable compliance monitoring requirements as follows:

Parametric Monitoring

Control	Parameter	Frequency	Range	Excursions and Exceedances
D-1801A, D-1801B	Visible Emissions	Daily	Normal-Abnormal	Response Steps
	Duct Pressure or Fan Amperage		Minumum rate observed in most recent stack test	
	Temperature	Continuous	Rate observed in most recent stack test	

These monitoring conditions are necessary because the thermal oxidizers need to operate properly to ensure compliance with 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants), 326 IAC 2-2 (PSD), 326 IAC 8-5-6 (Fuel Grade Ethanol Production), 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), and 326 IAC 2-7 (Part 70).

(8) The ethanol loading racks have applicable compliance determination requirements as specified below:

(a) Carbon adsorption/absorption vapor recovery systems (C-2101 and S-2501) shall be in operation and control emissions from the ethanol loading system at all times when these units are in operation.

(b) Testing

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing
L-2101D, EP-2501	C-2101, S-2501	5 yrs from most recent valid compliance demonstration	VOC	Once every 5 years

(9) The ethanol loading racks have applicable compliance monitoring requirements as follows:

Parametric Monitoring

Control	Parameter	Frequency	Range	Excursions and Exceedances
C-2101, S-2501	Carbon bed regeneration pressure	Daily	≥3 inHg or Minumum rate observed in most recent stack test	Response Steps
	High absorber bed temperature		<200°F or Maximum rate observed in most recent stack test	
F-1205, F-1206, F-1207, and F-1208	Water Pressure Drop	Daily	1.0 to 11.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
S-2252, DC-2251, LS-2201, LS-2202A, LS-2202B, and LS-2202C	Water Pressure Drop	Daily	0.25 to 6.0 inches	Response Steps

These monitoring conditions are necessary because the carbon adsorption/absorption hydrocarbon vapor recovery systems need to operate properly to ensure compliance with 326 IAC 2-2 (PSD), Comissioner's Order #2009-OAQ-01 and Variance issued on April 29, 2009, and 326 IAC 2-7 (Part 70).

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T129-31150-00050. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Summary of Updates to Section A

(a) As part of transitioning from a FESOP to a Title V permit, the Permittee has increased throughput on some units through process optimization / removing permit limits and added a few insignificant activities. These changes have been made in the equipment list and each emission unit description box as follows:

A.2 Emission Units and Pollution Control Equipment Summary [~~326 IAC 2-8-3(c)(3)~~]
[326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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

(a) One (1) grain receiving area, approved **in 2009** for construction ~~in 2009~~, and consisting of the following:

(1) One (1) truck/rail receiving pit, identified as ~~EP~~**T-**1101, with a ~~maximum~~ **rated** capacity of 1680 tons of corn per hour **and a maximum operating capacity of 1059 tons of corn per hour**, controlled by baghouse ~~DC~~**F-**1101, and exhausting through stack **S-**~~DC~~1101;

(2) One (1) truck receiving pit, identified as **T-**~~EP~~1102, with a ~~maximum~~ **rated** capacity of 1120 tons of corn per hour **and a maximum operating capacity of 398 tons of corn per hour**, controlled by baghouse **F-**~~DC~~1102, and exhausting through stack **S-**~~DC~~1102;

(3) Two (2) grain transfer drag conveyors, identified as **CV-**~~EP~~1101~~C~~ and **CV-**~~EP~~1102~~C~~, with a ~~maximum~~ **rated** capacity of 1680 tons of corn per hour and 1120 tons of corn per hour **and a maximum operating capacity of 1059 tons of corn per hour and 398 tons of corn per hour**, controlled by baghouses **F-**~~DC~~1101 and **F-**~~DC~~1102, and exhausting through stacks **S-**~~DC~~1101 and **S-**~~DC~~1102, respectively; and

(4) Two (2) grain storage silos, identified as **T-2001**~~EP2003A~~ and **T-2002**~~EP2004A~~, each with a maximum capacity of 150 tons of corn per hour, controlled by baghouses **F-**~~DC~~2003A, **F-**~~DC~~2003B, **F-**~~DC~~2004A, and **F-**~~DC~~2004B, and exhausting through stacks **B-**~~DC~~2003A, **B-**~~DC~~2003B, **B-**~~DC~~2004A, and **B-**~~DC~~2004B, respectively.

(b) One (1) corn scalper, identified as **SC-1201**~~EP2005A~~, approved **in 2009** for construction ~~in 2009~~, with a maximum capacity of 150 tons of corn per hour, controlled by baghouse **F-**~~DC~~1200, and exhausting through stack **B-**~~DC~~1200.

(c) Four (4) hammer mill surge bins, identified as ~~EP1200A, EP1200B, EP1200C, and EP1200D~~ **T-1201, T-1202, T-1203, T-1204**, approved **in 2009** for construction ~~in 2009~~, each with a maximum capacity of 117.6 tons of grain per hour, controlled by baghouse **F-**~~DC~~1200, and exhausting through stack **B-**~~DC~~1200.

(d) Four (4) hammermills, identified as ~~EP1205, EP1206, EP1207, and EP1208~~ **G-1205, G-1206, G-1207, and G-1208**, approved **in 2009** for construction ~~in 2009~~, each with a ~~maximum~~ **rated** capacity of 117.6 tons per hour of grain **and a maximum operating capacity of 42 tons per hour of grain**, controlled by baghouses ~~DC1205, DC1206, DC1207, and DC1208~~ **F-1205, F-1206, F-1207, and F-1208**, and exhausting through stacks ~~DC1205, DC1206, DC1207, and DC1208~~ **S-1205, S-1206, S-1207, and S-1208**, respectively.

(e) Two (2) pellet mills, identified as ~~EP2250A and EP2250B~~ **PM-2251 and PM-2254**, approved **in 2009** for construction ~~in 2009~~, each with a maximum capacity of 30 tons per hour, controlled by cyclones ~~DC2250A and DC2250B~~ **F-2251 and F-2252**, and exhausting through stacks ~~DC2250A and DC2250B~~ **B-2251 and B-2252**, respectively.

(f) One (1) DDGS unloading and loading area, approved **in 2009** for construction ~~in 2009~~, and consisting of the following:

(1) One (1) DDGS rail to barge unloading operation, identified as EP-2252, with a maximum capacity of 400 tons per hour, controlled by baghouse S-2252, and exhausting through stack S-2252;

(2) One (1) DDGS barge loadout operation, identified as EP-2251, with a maximum capacity of 200 tons per hour, controlled by high efficiency dustless spout filter system DC-2251, and exhausting through stack DC-2251;

(3) One (1) DDGS truck loadout operation, identified as ~~EP2201~~ **LS-2201**, with a ~~maximum~~ **rated** capacity of 200 tons per hour **and a maximum operating**

capacity of 169 tons per hour, controlled by high efficiency dustless spout filter system LS2201, and exhausting through stack **F-**~~LS~~2201; and

(4) Three (3) DDGS rail loadout operations, identified as **LS-**~~EP~~2202A, **LS-**~~EP~~2202B, and **LS-**~~EP~~2202C, with a ~~maximum~~ **rated** capacity of 200 tons per hour, each **and a maximum operating capacity of 169 tons of corn per hour, each**, controlled by high efficiency dustless spout filter systems LS-2202A, LS-2202B, and LS-2202C, and exhausting through stacks **F-**~~LS~~2202A, **F-**~~LS~~2202B, and **F-**~~LS~~2202C, respectively.

(g) One (1) fermentation process, approved **in 2009** for construction ~~in 2009~~, with a maximum throughput rate of 12,000 gallons of anhydrous ethanol per hour, consisting of the following major equipment:

(1) One (1) prefermenter tank, identified as T-1400, using a wet scrubber (S-1400) and sodium bisulfite injection for VOC control, exhausting through stack S-1400.

(2) Six (6) main fermenters and one (1) beer well, identified as T-1401 through T-1407, using a wet scrubber (S-1401), and sodium bisulfite injection for VOC control, exhausting through stack S-1401.

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

(h) One (1) distillation process, approved **in 2009** for construction ~~in 2009~~, with a maximum throughput rate of 12,000 gallons of anhydrous ethanol per hour, using a wet scrubber, (S-1504) and sodium bisulfite injection for VOC control, exhausting through stack S-1504, and consisting of the following major equipment:

(1) One (1) beer column identified as C-1510.

(2) One (1) stripping column identified as C-1520.

(3) One (1) rectifying column identified as C-1530.

(4) One (1) four-~~tower~~**bottle** molecular sieve unit, with associated heat exchangers and pumps.

(5) One (1) degas column identified as C-1500.

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

(i) Four (4) natural gas fired boilers, identified as BL-5001, BL-5002, BL-5003, and BL-5004, approved **in 2009** for construction ~~in 2009~~, with a maximum heat input rate of 92.4 MMBtu/hr, each, and exhausting through stacks **S-**~~BL~~5001, **S-**~~BL~~5002, **S-**~~BL~~5003, and **S-**~~BL~~5004, respectively.

Under NSPS, Subpart Dc, the boilers are considered affected facilities.

(j) Two (2) natural gas fired Swiss Combi "Eco-Dry" Dryer Systems, identified as ~~D1802A and D1802B~~**D-1801A and D-1801B**, approved **in 2009** for construction ~~in 2009~~, with a maximum heat input rate of 76.7MMBtu/hr and a design throughput rate of 20 tons per hour of DDGS each, with emissions exhausting through stacks S**T-**1802A and S**T-**1802B.

Note: The basis of the Swiss Combi Dryer System is an indirect heat drying process using a closed steam loop with thermal oxidation. The DDGS cooler is also integrated into the Eco-Dry system.

Under NSPS, Subpart Dc, the Swiss Combi Dryer Systems are considered affected facilities.

(k) One (1) ethanol and E85 loading rack for trucks and railcars, identified as ~~EP2101~~**L-2101D**, approved **in 2009** for construction ~~in 2009~~, with a ~~maximum~~ **rated** throughput rate of 4,200 gallons per minute for trucks and railcars **and a maximum operating capacity of 180,600 gallons per hour for trucks and railcars**, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as **C-**~~S~~2101, and exhausting through stack S-2101.

Under NSPS, Subpart VVa, equipment (as defined in 40 CFR 60.481a) within a process unit is an affected facility. **Under NESHAP, Subpart BBBBBB this is a new affected unit.**

(l) One (1) ethanol and E85 loading rack for barges, identified as EP-2501, approved **in 2009** for construction ~~in 2009~~, with a maximum throughput rate of 4,200 gallons per minute, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as S-2501, and exhausting through stack S-2501.

Under NSPS, Subpart VVa, equipment (as defined in 40 CFR 60.481a) within a process unit is an affected facility. **Under NESHAP, Subpart BBBBBB this is a new affected unit.**

A.3 Specifically Regulated Insignificant Activities
[326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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

(a) One (1) diesel fired stationary fire pump, identified as P-7075B, approved **in 2009** for construction ~~in 2009~~, with a maximum power output rate of 460 horsepower, and exhausting through stack P7075B. [326 IAC 2-8-4]

Under NSPS, Subpart IIII **and NESHAP, Subpart ZZZZ**, the diesel fire pump is considered a new certified National Fire Protection Association (NFPA) fire pump.

(b) One (1) emergency diesel generator, identified as GN-7000, approved **in 2009** for construction ~~in 2009~~, with a maximum power output rate of 1,495 horsepower, and exhausting through stack GN-7000.

Under NSPS, Subpart IIII **and NESHAP, Subpart ZZZZ**, the emergency diesel generator is considered a new stationary compression ignition internal combustion engine.

~~(c) Noncontact cooling tower system with natural draft not regulated under a NESHAP.~~

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

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

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

(~~g~~**d**) 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. **[326 IAC 6-3-2]**

~~(h) A laboratory as defined in 326 IAC 2-7-1(21)(D).~~

(~~i~~**e**) 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 storage tank, identified as T-2104, with a maximum capacity of 128,800 gallons equipped with an internal floating roof for VOC emissions control. [326 IAC 8-4-3] [40 CFR 60, Subpart Kb]

(2) Three (3) tanks for storage of denatured fuel ethanol and/or E-85, identified as T-2102, T-2103, and T-2105 each with a maximum capacity of 1,015,164 gallons, and each equipped with an internal floating roof for VOC emissions control. [40 CFR 60, Subpart Kb]

~~(3) One (1) fixed-roof anhydrous ethanol off-spec storage tank, identified as T2101, with a maximum capacity of 39,500 gallons, equipped with an internal floating roof for VOC emissions control.~~

(~~4~~**3**) Two (2) fixed-roof anhydrous ethanol storage tanks (shift tanks), identified as T-2110 and T-2111, each with a maximum capacity of 250,000 gallons~~.~~, and each equipped with an internal floating roof for VOC emissions control. [40 CFR 60, Subpart Kb]

Under NSPS, Subpart Kb, storage tanks T-2104, T-2102, T-2103, T-2105, T-2110, and T-2111 are considered volatile organic liquid storage vessels.

~~(5) Cook area process equipment, including: one (1) slurry tank (T-1301), one (1) mash cooker (V-1302), two (2) conversion tanks (T-1304 and T-1305), one (1) hot water tank (T-1303), one (1) saccharification flash vessel (V-1306), three (3) mash coolers (E-1311 through E-1313), and three (3) mash trim coolers (E-1515 through E-1517).~~

~~(6) Equipment for handling spent grain from the fermentation process, including: one (1) triple effect light evaporation system, one (1) final concentrator, one (1) whole stillage tank (T-1701), one (1) thin stillage tank (T-1600), one (1) intermediate stillage tank (T-1702), one (1) syrup tank (T-1650), and Four (4) stillage decanters (SP-1701 through SP-1704).~~

~~(7) One (1) corrosion inhibitor storage tank.~~

~~(8) One (1) sulfuric acid tank (T-1911).~~

~~(9) One (1) Clean-in place (CIP) system.~~

~~(10) Compressed air and dry air systems.~~

(4) One (1) corn oil separation process, approved in 2012 for construction, with a maximum throughput of 3,500,000 gallons per year, and consisting of the following:

(A) Two (2) tricanter centrifuges, uncontrolled, and exhausting inside.

(B) Four (4) storage tanks, storing corn oil, each with a maximum capacity of 9,500 gallons, and controlled by the distillation scrubber (S-1504).

(C) Seven (7) process tanks, uncontrolled, exhausting inside, and consisting of the following:

(i) One (1) 560 gallon tank;

(ii) One (1) 270 gallon tank;

(iii) One (1) 3,759 gallon tank;

(iv) One (1) 1,000 gallon tank;

(v) One (1) 450 gallon tank;

(vi) One (1) 400 gallon tank; and

(vii) One (1) 205 gallon tank.

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

(f) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment.

(1) One (1) gasoline tank, approved in 2009 for construction, with a maximum capacity of 500 gallons and an estimated monthly throughput of 140 gallons.

Under NESHAP, Subpart CCCCCC this is considered a new affected unit.

A.4 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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

(a) Noncontact cooling tower system with natural draft not regulated under a NESHAP.

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

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

(d) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(e) 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) fixed-roof anhydrous ethanol off-spec storage tank, identified as T-2101, with a maximum capacity of 39,500 gallons, equipped with an internal floating roof for VOC emissions control.

(2) Cook area process equipment, including: one (1) slurry tank (T-1301), one (1) mash cooker (V-1302), two (2) conversion tanks (T-1304 and T-1305), one (1) hot water tank (T-1303), one (1) saccharification flash vessel (V-1306), three (3) mash coolers (E-1311 through E-1313), and three (3) mash trim coolers (E-1515 through E-1517).

(3) Equipment for handling spent grain from the fermentation process, including: one (1) triple effect light evaporation system, one (1) final concentrator, one (1) whole stillage tank (T-1701), one (1) thin stillage tank (T-1600), one (1) intermediate stillage tank (T-1702), one (1) syrup tank (T-1650), and Four (4) stillage decanters (SP-1701 through SP-1704).

(4) One (1) corrosion inhibitor storage tank.

(5) One (1) sulfuric acid tank (T-1911).

(6) One (1) Clean-in place (CIP) system.

(7) Compressed air and dry air systems.

(f) A petroleum fuel other than gasoline dispensing facility, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less.

(1) One (1) diesel fuel tank, approved in 2009 for construction, with a maximum capacity of 500 gallons and an estimated monthly throughput of 1,100 gallons.

Summary of Model Updates for D Conditions

IDEM, OAQ has made changes to some of the standard language in conditions in the D Sections of the permit to help clarify the intent of these conditions. The following revisions have been made to the D Sections of the permit:

(a) For clarity, IDEM, OAQ has changed references to the general conditions such as "in accordance with Section B", "in accordance with Section C", or other similar language to "Section C...contains the Permittee's obligation with regard to the records required by this condition.

(b) IDEM, OAQ has decided to clarify Section D - Testing Requirements.

(c) The word "status" has been added to the Record Keeping Requirements and Reporting Requirements. The Permittee has the obligation to document the compliance status. The wording has been revised to properly reflect this.

(d) IDEM, OAQ has decided that the phrases "no later than" and "not later than" are clearer than "within" in relation to the end of a timeline. Therefore, all references to timelines have been revised to "no later than" or "not later than".

(e) IDEM, OAQ has included the replacement of an instrument as an acceptable action in the Parametric Monitoring Conditions.

(f) 326 IAC 2-7 requires that "a responsible official" perform certain actions. 326 IAC 2-7-1(34) allows for multiple people to meet the definition of "responsible official." Therefore, IDEM, OAQ is revising all instances of "the responsible official" to read "a responsible official".

(g) IDEM, OAQ has decided to clarify what rule requirements a certification needs to meet.

(h) IDEM, OAQ has revised the language in the parametric monitoring conditions to clarify when a range should be modified due to test results.

The following revisions to the D sections of the permit are specific to this Permittee. Some of these revisions are considered Title I changes.

(i) IDEM, OAQ has removed all construction conditions from the permit since all units have been constructed.

(j) PSD and HAP minor limits have been redone since the source is no longer restricted by FESOP limits to be under 100 tpy. Compliance determintation, monitoring, record keeping, reporting, and forms have been updated to reflect these changes.

(k) The throuhgput rates and limits pursuant to 326 IAV 6-3-2 have been adjusted due to process optimization.

(l) Testing conditions have been updated to reflect that the first round of testing is complete and EPA has issued the revised condensable PM test method.

(m) In Section 6 the Preventative Maintenace Plan (PMP) requirement has been updated to reflect that all units in this section and their associated control devices need a PMP. This includes woodworking since correct operation of the associated integral control is necessary to ensure compliance with 326 IAC 6-3-2.

(n) D Conditions which cite E Conditions for NSPS applicability have been removed because they are duplicative.

(o) Section E.2 was modified to reflect updates to 40 CFR 60, Subpart IIII.

(p) New Sections E.5 through E.7 were added due to updated NESHAP applicability.

SECTION D.1 FACILITY OPERATION CONDITIONS – Grain and DDGS Handling Processes

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

(a) One (1) grain receiving area, approved **in 2009** for construction ~~in 2009~~, and consisting of the following:

(1) One (1) truck/rail receiving pit, identified as ~~EP~~**T-**1101, with a ~~maximum~~ **rated** capacity of 1680 tons of corn per hour **and a maximum operating capacity of 1059 tons of corn per hour**, controlled by baghouse ~~DC~~**F-**1101, and exhausting through stack **S-**~~DC~~1101;

(2) One (1) truck receiving pit, identified as **T-**~~EP~~1102, with a ~~maximum~~ **rated** capacity of 1120 tons of corn per hour **and a maximum operating capacity of 398 tons of corn per hour**, controlled by baghouse **F-**~~DC~~1102, and exhausting through stack **S-**~~DC~~1102;

(3) Two (2) grain transfer drag conveyors, identified as **CV-**~~EP~~1101~~C~~ and **CV-**~~EP~~1102~~C~~, with a ~~maximum~~ **rated** capacity of 1680 tons of corn per hour and 1120 tons of corn per hour **and a maximum operating capacity of 1059 tons of corn per hour and 398 tons of corn per hour**, controlled by baghouses **F-**~~DC~~1101 and **F-**~~DC~~1102, and exhausting through stacks **S-**~~DC~~1101 and **S-**~~DC~~1102, respectively; and

(4) Two (2) grain storage silos, identified as **T-2001**~~EP2003A~~ and **T-2002**~~EP2004A~~, each with a maximum capacity of 150 tons of corn per hour, controlled by baghouses **F-**~~DC~~2003A, **F-**~~DC~~2003B, **F-**~~DC~~2004A, and **F-**~~DC~~2004B, and exhausting through stacks **B-**~~DC~~2003A, **B-**~~DC~~2003B, **B-**~~DC~~2004A, and **B-**~~DC~~2004B, respectively.

(b) One (1) corn scalper, identified as **SC-1201**~~EP2005A~~, approved **in 2009** for construction ~~in 2009~~, with a maximum capacity of 150 tons of corn per hour, controlled by baghouse **F-**~~DC~~1200, and exhausting through stack **B-**~~DC~~1200.

(c) Four (4) hammer mill surge bins, identified as ~~EP1200A, EP1200B, EP1200C, and EP1200D~~ **T-1201, T-1202, T-1203, T-1204**, approved **in 2009** for construction ~~in 2009~~, each with a maximum capacity of 117.6 tons of grain per hour, controlled by baghouse **F-**~~DC~~1200, and exhausting through stack **B-**~~DC~~1200.

(d) Four (4) hammermills, identified as ~~EP1205, EP1206, EP1207, and EP1208~~ **G-1205, G-1206, G-1207, and G-1208**, approved **in 2009** for construction ~~in 2009~~, each with a ~~maximum~~ **rated** capacity of 117.6 tons per hour of grain **and a maximum operating capacity of 42 tons per hour of grain**, controlled by baghouses ~~DC1205, DC1206, DC1207, and DC1208~~ **F-1205, F-1206, F-1207, and F-1208**, and exhausting through stacks ~~DC1205, DC1206, DC1207, and DC1208~~ **S-1205, S-1206, S-1207, and S-1208**, respectively.

(e) Two (2) pellet mills, identified as ~~EP2250A and EP2250B~~ **PM-2251 and PM-2254**, approved **in 2009** for construction ~~in 2009~~, each with a maximum capacity of 30 tons per hour, controlled by cyclones ~~DC2250A and DC2250B~~ **F-2251 and F-2252**, and exhausting through stacks ~~DC2250A and DC2250B~~ **B-2251 and B-2252**, respectively.

(f) One (1) DDGS unloading and loading area, approved **in 2009** for construction ~~in 2009~~, and consisting of the following:

(1) One (1) DDGS rail to barge unloading operation, identified as EP-2252, with a maximum capacity of 400 tons per hour, controlled by baghouse S-2252, and exhausting through stack S-2252;

(2) One (1) DDGS barge loadout operation, identified as EP-2251, with a maximum capacity of 200 tons per hour, controlled by high efficiency dustless spout filter system DC-2251, and exhausting through stack DC-2251;

(3) One (1) DDGS truck loadout operation, identified as ~~EP2201~~ **LS-2201**, with a ~~maximum~~ **rated** capacity of 200 tons per hour **and a maximum operating capacity of 169 tons per hour**, controlled by high efficiency dustless spout filter system LS2201, and exhausting through stack **F-**~~LS~~2201; and

(4) Three (3) DDGS rail loadout operations, identified as **LS-**~~EP~~2202A, **LS-**~~EP~~2202B, and **LS-**~~EP~~2202C, with a ~~maximum~~ **rated** capacity of 200 tons per hour, each **and a maximum operating capacity of 169 tons of corn per hour, each**, controlled by high efficiency dustless spout filter systems LS2202A, LS2202B, and LS2202C, and exhausting through stacks **F-**~~LS~~2202A, **F-**~~LS~~2202B, and **F-**~~LS~~2202C, respectively.

(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)]~~**[326 IAC 2-7-5(1)]**

D.1.~~4~~**1** PM, PM10, and PM2.5 Emissions [326 IAC 2-2] ~~[326 IAC 2-8-4]~~

(a) The PM, PM10, and PM2.5 emissions from the grain receiving, handling, unloading, and loadout operations shall not exceed the emission limits listed in the table below:

Unit Description	Baghouse ID	PM Emission Limit (lbs/hr)	PM10 Emission Limit (lbs/hr)	PM2.5 Emission Limit (lbs/hr)
Truck/Rail Receiving Pit and Grain Conveyor (**T-**~~EP~~1101 and **CV-**~~EP~~1101~~C~~)	**F-**~~DC~~1101	~~1.03~~ **3.09**	~~1.03~~ **3.09**	~~1.03~~ **3.09**
Truck Receiving Pit and Grain Conveyor (**T-**~~EP~~1102 and **CV-**~~EP~~1102~~C~~)	**F-**~~DC~~1102	~~0.43~~ **1.29**	~~0.43~~ **1.29**	~~0.43~~ **1.29**
Grain Storage Silo (~~EP2003A~~**T-2001**)	**F-**~~DC~~2003A ~~DC2003B~~	~~0.08~~ **0.13**	~~0.08~~ **0.13**	~~0.08~~ **0.13**
Grain Storage Silo (T-2001)	**F-2003B**	**0.13**	**0.13**	**0.13**
Grain Storage Silo (**T-2002**~~EP2004A~~)	**F-**~~DC~~2004A ~~DC2004B~~	~~0.08~~ **0.13**	~~0.08~~ **0.13**	~~0.08~~ **0.13**
Grain Storage Silo (T-2002)	**F-2004B**	**0.13**	**0.13**	**0.13**
Corn Scalper and Hammer Mill Surge Bins (~~EP2005A~~ **SC-1201** and ~~EP1200A~~ **T-1201** through ~~EP1200D~~**T-1204)**	**F-**~~DC~~1200	~~0.04~~ **0.13**	~~0.04~~ **0.13**	~~0.04~~ **0.13**
Hammermill (**G-**~~EP~~1205)	**F-**~~DC~~1205	~~0.26~~ **0.77**	~~0.26~~ **0.77**	~~0.26~~ **0.77**
Hammermill (**G-**~~EP~~1206)	**F-**~~DC~~1206	~~0.26~~ **0.77**	~~0.26~~ **0.77**	~~0.26~~ **0.77**
Hammermill (**G-**~~EP~~1207)	**F-**~~DC~~1207	~~0.26~~ **0.77**	~~0.26~~ **0.77**	~~0.26~~ **0.77**
Hammermill (**G-**~~EP~~1208)	**F-**~~DC~~1208	~~0.26~~ **0.77**	~~0.26~~ **0.77**	~~0.26~~ **0.77**
Pellet Mill (~~EP2250A~~**PM-2251**)	~~DC2250A~~**F-2251**	~~0.51~~ **1.54**	~~0.51~~ **1.54**	~~0.51~~ **1.54**
Pellet Mill (~~EP2250B~~**PM-2254**)	~~DC2250B~~**F-2252**	~~0.51~~ **1.54**	~~0.51~~ **1.54**	~~0.51~~ **1.54**
DDGS Rail to Barge Unloading (EP-2252)	S-2252	~~1.03~~ **3.09**	~~1.03~~ **3.09**	~~1.03~~ **3.09**
DDGS Barge Loadout	DC-2251	~~0.64~~ **1.93**	~~0.64~~ **1.93**	~~0.64~~ **1.93**

Unit Description	Baghouse ID	PM Emission Limit (lbs/hr)	PM10 Emission Limit (lbs/hr)	PM2.5 Emission Limit (lbs/hr)
(EP-2251)				
DDGS Truck Loadout (**LS-**~~EP~~2201)	**F-**~~LS~~2201	~~0.06~~ **0.18**	~~0.06~~ **0.18**	~~0.06~~ **0.18**
DDGS Rail Loadout (**LS-**~~EP~~2202A)	LS-2202A	~~0.06~~ **0.18**	~~0.06~~ **0.18**	~~0.06~~ **0.18**
DDGS Rail Loadout (**LS-**~~EP~~2202B)	LS-2202B	~~0.06~~ **0.18**	~~0.06~~ **0.18**	~~0.06~~ **0.18**
DDGS Rail Loadout (**LS-**~~EP~~2202C)	LS-2202C	~~0.06~~ **0.18**	~~0.06~~ **0.18**	~~0.06~~ **0.18**

Compliance with these limits, **in conjunction with the limits in Condition D.4.1 and** ~~combined with~~ the potential to emit PM, PM10, and PM2.5 from all other emission units at this source, shall limit the source-wide total potential to emit of PM**, PM10, and PM2.5** to less than 250 tons per 12 consecutive month period ~~and PM10 and PM2.5 to less than 100 tons per 12 consecutive month period~~, each, and shall render ~~326 IAC 2-7 (Part 70 Program) and~~ 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.~~5~~**2** Particulate Emission Limitations [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from each of 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)
T-~~EP~~1101	Truck/Rail Receiving Pit	~~1680~~ **1059**	~~84.5~~ **78.3**
T-~~EP~~1102	Truck Receiving Pit	~~1120~~ **398**	~~79.1~~ **66.3**
CV-~~EP~~1101~~C~~	Grain Conveyor	~~1680~~ **1059**	~~84.5~~ **78.3**
CV-~~EP~~1102~~C~~	Grain Conveyor	~~1120~~ **398**	~~79.1~~ **66.3**
~~EP2003A~~**T-2001**	Grain Storage Silo	140	54.7
~~EP2004A~~**T-2002**	Grain Storage Silo	140	54.7
~~EP2005A~~**SC-1201**	Corn Scalper	150	55.4
~~EP1200A~~ **T-1201** through ~~EP1200D~~**T-1204**	Hammer Mill Surge Bins	117.6, each	52.9, each
G-~~EP~~1205	Hammermill	~~117.6~~ **42**	~~52.9~~ **43.0**
G-~~EP~~1206	Hammermill	~~117.6~~ **42**	~~52.9~~ **43.0**
G-~~EP~~1207	Hammermill	~~117.6~~ **42**	~~52.9~~ **43.0**
G-~~EP~~1208	Hammermill	~~117.6~~ **42**	~~52.9~~ **43.0**
~~EP2250A~~**PM-2251**	Pellet Mill*	30	40.0
~~EP2250B~~**PM-2254**	Pellet Mill*	30	40.0
EP-2252	DDGS Rail to Barge Unloading	400	66.3
EP-2251	DDGS Barge Loadout	200	58.5
LS-~~EP~~2201	DDGS Truck Loadout	~~200~~ **169**	~~58.5~~ **56.7**
LS-~~EP~~2202A	DDGS Rail Loadout	~~200~~ **169**	~~58.5~~ **56.7**
LS-~~EP~~2202B	DDGS Rail Loadout	~~200~~ **169**	~~58.5~~ **56.7**
LS-~~EP~~2202C	DDGS Rail Loadout	~~200~~ **169**	~~58.5~~ **56.7**

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D.1.~~6~~**3** Preventive Maintenance Plan ~~[326 IAC 2-8-4(9)]~~**[326 IAC 2-7-5(12)]**

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Compliance Determination Requirements

D.1.~~7~~**4** Particulate Control

(a) In order to comply with Conditions ~~D.1.4~~ **D.1.1** and ~~D.1.5~~ **D.1.2**, each of the following emission units shall be controlled by the associated control device, as listed in the table below, when these units are in operation:

***

D.1.~~8~~**5** Testing Requirements ~~[326 IAC 2-8-5(a)(1), (4)]~~ [326 IAC 2-1.1-11]**[326 IAC 2-7-6(1),(6)]**

In order to demonstrate compliance with Conditions ~~D.1.4~~ **D.1.1** and ~~D.1.5~~ **D.1.2**:

(a) The Permittee shall perform PM**, PM10, and PM2.5** testing for baghouses ~~DC1101, DC1102~~, S-2252~~,~~ and high efficiency dustless spout filter system DC-2251 not later than 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 the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. **PM10 and PM2.5 includes filterable and condensable PM.**

(b) The Permittee shall perform PM**, PM10, and PM2.5** testing for one of the baghouses ~~DC1205, DC1206, DC1207 and DC1208~~**S-1205, S-1206, S-1207, and S-1208**, for one of the cyclones ~~DC2250A and DC2250B~~**F-2251 and F-2252**, and one of the high efficiency dustless spout filter systems LS-2201, LS-2202A, LS-2202B, and LS-2202C ~~not later than 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 the most recent valid compliance demonstration. **The source will test the control device within each group for which the longest period of time has passed since the last valid compliance test.** Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. **PM10 and PM2.5 includes filterable and condensable PM.**

(c) The Permittee shall perform **PM,** PM2.5 and PM10 testing for baghouses **F-**~~DC~~1101~~,~~ **and** F-~~DC~~1102~~, S2252, and high efficiency dustless spout filter system DC2251 not later than 60 days after achieving the maximum capacity, but not later than 180 days after initial startup or not later than 180 days after final promulgation of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008, whichever occurs later. This testing shall be conducted~~ utilizing methods as approved by the Commissioner~~. These tests shall be repeated~~ at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable PM.

~~(d) The Permittee shall perform PM2.5 and PM10 testing for one of the baghouses DC1205, DC1206, DC1207 and DC1208, for one of the cyclones DC2250A and DC2250B, and one of the and high efficiency dustless spout filter systems LS2201, LS2202A, LS2202B, and LS2202C not later than 60 days after achieving the maximum capacity, but not later than 180 days after initial startup or not later than 180 days after final promulgation of the~~

~~new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008, whichever occurs later. This testing shall be conducted 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 the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable PM~~.

Compliance Monitoring Requirements ~~[326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]~~**[326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]**

D.1.~~9~~**6** Visible Emissions Notations

(a) Visible emission notations of the stack exhausts (stacks ~~DC1101, DC1102, DC2003A, DC2003B, DC2004A, DC2004B, DC1200, DC1205, DC1206, DC1207, DC1208, DC2250A, DC2250B, S2252, DC2251, LS2201, LS2202A, LS2202B, and LS2202C~~**F-1101, F-1102, F-2003A, F-2003B, F-2004A, F-2004B, F-1200, F-1205, F-1206, F-1207, F-1208, F-2251, F-2252, S-2252, DC-2251, LS-2201, LS-2202A, LS-2202B, AND LS-2202C**) shall be performed once per day during normal daylight operations. A trained employee or a trained contractor shall record whether emissions are normal or abnormal.

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(e) If abnormal emissions are observed, the Permittee shall take **a** reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.1.~~10~~**7** Parametric Monitoring

(a) The Permittee shall monitor and record the pressure drop across the baghouses used in conjunction with the following:

Emissions Units	Control Devices	Normal Parameters	Frequency
Grain receiving and handling ~~EP1101, EP1102, EP1101C, EP1102C, EP2003A, and EP2004A~~ **T-1101, T-1102, CV-1101, CV-1102, T-2001, and T-2002**	Baghouses ~~DC1101, DC1102, DC2003A, DC2003B,DC2004A, and DC2004B~~**F-1101, F-1102, F-2003A, F-2003B, F-2004A, and F-2004B**	Pressure drop 1 inch to 6 inches of water	Once per day minimum when in operation
Corn scalper and hammermill surge bins ~~EP2005A~~ **SC-1201** and ~~EP1200A~~ **T-1201** through ~~EP1200D~~**T-1204**	Baghouse **F-**~~DC~~1200	Pressure drop 1 inch to 6 inches of water	Once per day minimum when in operation
Hammermills **G-**~~EP~~1205 through **G-**~~EP~~1208	Baghouses ~~DC1205, DC1206, DC1207, and DC1208~~**F-1205, F-1206, F-1207, and F-1208**	Pressure drop 1 inch to 11 inches of water	Once per day minimum when in operation
DDGS Loadout operation EP-2252, EP-2251, **LS-**~~EP~~2201, and **LS-**~~EP~~2202A through **LS-**~~EP~~2202C	Baghouse S-2252, Dustless spout filter systems DC-2251, LS-2201, LS-2202A, LS-2202B, and LS-2202C	Pressure drop 0.25 inch to 6 inches of water	Once per day minimum when in operation

When, for any one reading, the pressure drop across the baghouse is outside the normal range or a range ~~established during the latest stack test~~, the Permittee shall take **a** reasonable response. **The normal range for these units is listed in the table above**

unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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D.1.~~11~~**8** Broken or Failed Bag Detection

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Record Keeping and Reporting Requirement [~~326 IAC 2-8-4(3)] [326 IAC 2-8-16]~~**[326 IAC 2-7-5(3)][326 IAC 2-7-19]**

D.1.~~12~~**9** Record Keeping Requirements

(a) To document the compliance status with Condition ~~D.1.9~~**D.1.6**, the Permittee shall maintain records of daily 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 the compliance status with Condition ~~D.1.10~~**D.1.7**, the Permittee shall maintain daily records of pressure drop for baghouses 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 pressure drop reading (e.g., the process did not operate that day).

(c) ***

SECTION D.2 FACILITY OPERATION CONDITIONS

~~**Facility Description [326 IAC 2-8-4(10)]:**~~ **Emission Unit Description:**

(g) One (1) fermentation process, approved **in 2009** for construction ~~in 2009~~, with a maximum throughput rate of 12,000 gallons of anhydrous ethanol per hour, consisting of the following major equipment:

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(h) One (1) distillation process, approved **in 2009** for construction ~~in 2009~~, with a maximum throughput rate of 12,000 gallons of anhydrous ethanol per hour, using a wet scrubber, (S1504) and sodium bisulfite injection for VOC control, exhausting through stack S1504, and consisting of the following major equipment:

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(4) One (1) four-~~tower~~**bottle** molecular sieve unit, with associated heat exchangers and pumps.

(5) One (1) degas column identified as C-1500.

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(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)]~~**[326 IAC 2-7-5(1)]**

D.2.~~4~~**1** ~~FESOP~~ **PSD and HAP Minor** Limits [326 IAC 2-2] ~~[326 IAC 2-8-4]~~ [326 IAC 2-4.1]

~~Pursuant to 326 IAC 2-8-4 (FESOP), and~~ ~~I~~in order to render the requirements of 326 IAC 2-2 (PSD) **and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))** not applicable, the Permittee shall comply with the following emission limits for the scrubbers (S-1400, S-1401, and S-1504), which are used to control the emissions from the fermentation and distillation processes:

~~(a) The emissions from the Pre-Fermentation Scrubber (S1400) shall not exceed the following:~~

~~(1) VOC emissions shall not exceed 2.45 lbs/hr.~~

~~(2) Acetaldehyde emissions shall not exceed 0.20 lbs/hr.~~

~~(3) Total HAP emissions shall not exceed 0.36 lbs/hr.~~

~~(b) The emissions from the Fermentation Scrubber (S1401) shall not exceed the following:~~

~~(1) VOC emissions shall not exceed 6.69 lbs/hr.~~

~~(2) Acetaldehyde emissions shall not exceed 0.35 lbs/hr.~~

~~(3) Total HAP emissions shall not exceed 0.94 lbs/hr.~~

~~(c) The emissions from the Distillation Scrubber (S1504) shall not exceed the following:~~

~~(1) VOC emissions shall not exceed 1.54 lbs/hr.~~

~~(2) Acetaldehyde emissions shall not exceed 0.40 lbs/hr.~~

~~(3) Total HAP emissions shall not exceed 0.47 lbs/hr.~~

Process /Control Device ID	VOC Limit (lb/hr)	Acetaldehyde Limit (lb/hr)	Total HAP Limit (lb/hr)
Pre-Fermentation Scrubber (S-1400)	**4.50**	**0.30**	**0.46**
Fermentation Scrubber (S-1401)	**20.00**	**0.45**	**1.04**
Distillation Scrubber (S-1504)	**2.50**	**0.20**	**0.27**

Compliance with ~~these~~ **the above** limits, **in conjunction with the limit in Conditions D.4.1, D.5.1 and** ~~combined with~~ the potential to emit VOC and HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of VOC to less than ~~100~~ **250** tons per 12 consecutive month period, any single HAP to less than ten (10) tons per 12 consecutive month period, and total HAPs to less than twenty-five (25) tons per 12 consecutive month period and shall render ~~326 IAC 2-7 (Part 70 Permits),~~ 326 IAC 2-2 (Prevention of Significant Deterioration (PSD))~~,~~ and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) not applicable.

D.2.~~5~~**2** VOC Emissions [326 IAC 8-5-6]

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

(a) The VOC emissions from the fermentation and distillation processes shall be controlled by wet scrubbers, identified as S-1400, S-1401, and S-1504.

(b) The overall efficiency for each of the wet scrubbers S-1400, S-1401, and S-1504 (including the capture efficiency and absorption efficiency), shall be at least 98%, or the VOC outlet concentration shall not exceed 20 ppmv.

~~D.2.6 Equipment Leaks of VOC [326 IAC 12][40 CFR 60, Subpart VVa]~~

~~Pursuant to 40 CFR 60, Subpart VVa, the Permittee shall comply with the requirement of Section E.1 for pumps; compressors; pressure relief devices in gas/vapor service; sampling connection systems; open-ended valves or lines; and valves.~~

D.2.~~7~~**3** Preventive Maintenance Plan ~~[326 IAC 2-8-4(9)]~~**[326 IAC 2-7-5(12)]**

A Preventive Maintenance Plan is required for these facilities and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.2.~~8~~**4** VOC and HAP Control

(a) In order to comply with Conditions ~~D.2.4~~**D.2.1** and ~~D.2.5~~**D.2.2**, the scrubbers (S-1400, S-1401, and S-1504) shall be in operation and control emissions from the fermentation and distillation processes at all times that these units are in operation.

(b) In order to comply with Condition ~~D.2.4~~**D.2.1**, the sodium bisulfite injection systems shall be in operation and injecting sodium bisulfite into scrubbers S-1400, S-1401, and S-1504 at all times that the fermentation and distillation processes are in operation.

D.2.~~9~~**5** 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]**

In order to demonstrate compliance with Conditions ~~D.2.4~~**D.2.1** and ~~D.2.5~~**D.2.2**, the Permittee shall perform VOC and acetaldehyde testing (including emission rate, overall destruction efficiency and overall capture efficiency), on the wet scrubber stacks (S-1400, S-1401, and S-1504) ~~not later than 60 days after achieving 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 the most recent valid compliance

demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

Compliance Monitoring Requirements ~~[326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]~~**[326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

D.2.~~10~~**6** Visible Emissions Notations

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(e) If abnormal emissions are observed, the Permittee shall take **a** reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.2.~~11~~**7** Scrubber Pressure Drop and Flow Rate

The Permittee shall monitor and record the pressure drop ~~and the flow rate~~ of the scrubbers as follows:

Emissions Units	Control Devices	Normal Parameters	Frequency
Pre-fermentation Process T-1400	Scrubber S-1400	Pressure drop 1 inch to 12 inches of water	Once per day minimum when in operation
		~~Minimum flow rate 8.0 gallons per minute~~	
Fermentation Process T-1401 through T-1407	Scrubber S-1401	Pressure drop 1 inch to 12 inches of water	Once per day minimum when in operation
		~~Minimum flow rate 8.0 gallons per minute~~	
Distillation Process	Scrubber S-1504	Pressure drop 1 inch to 6 inches of water	Once per day minimum when in operation
		~~Minimum flow rate 8.0 gallons per minute~~	

(a) When for any one reading, the pressure drop across a scrubber is outside the normal range, ~~or a range established during the latest stack test,~~ the Permittee shall take **a** reasonable response. **The normal range for these units is listed in the table above unless a different upper-bound or lower-bound value for this range is determined during the latest stack test.** Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. ~~When for any one reading, the flow rate of a scrubber is less than the normal minimum, or a minimum established during the latest stack test, the Permittee shall take reasonable response steps. 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 shall be considered a deviation from this permit.

(b) The Permittee shall determine the minimum flow rate from the latest valid stack test that demonstrates compliance with limits in Conditions D.2.1 and D.2.2.

(c) On and after the date the stack test results are available, the Permittee shall maintain a flow rate at or above the minimum rate as observed during the latest

compliant stack test. If the flow rate falls below the level observed during the latest compliant stack test, the Permittee shall take a reasonable response.

The instrument~~s~~ 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 or replaced at least once every six (6) months.

D.2.~~12~~**8** Scrubber Detection

***

D.2.~~13~~**9** Sodium Bisulfite Injection System

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the fermentation scrubbers (S-1400 and S-1401) and distillation scrubber (S-1504) for measuring the sodium bisulfite injection rate. For the purpose of this condition, continuous means no less than once per fifteen (15) minutes. The output of this system shall be recorded as a one-hour average. ~~From the date of issuance of this permit until the stack test results are available; the Permittee shall inject sodium bisulfite at the rates shown in the table below:~~

~~Scrubber ID~~	~~Sodium Bisulfite Injection Rate (milliliters per minute)~~
~~S1400~~	~~53.7~~
~~S1401~~	~~95.2~~
~~S1504~~	~~90.9~~

(b) The Permittee shall determine the one-hour average injection rates from the most recent valid stack test that demonstrates compliance with limits in Condition ~~D.2.4~~**D.2.1**.

(c) On and after the date the stack test results are available, the Permittee shall inject sodium bisulfite at or above the one-hour average injection rates as observed during the compliant stack test.

(d) When the one-hour injection rate falls below the above mentioned one-hour injection rate, the Permittee shall take a response step. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response steps required by this condition. A one-hour average that is outside the appropriate injection rate is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

Record Keeping and Reporting Requirement ~~[326 IAC 2-8-4(3)] [326 IAC 2-8-16]~~ **[326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.2.~~14~~**10** Record Keeping Requirements

(a) To document the compliance status with Condition ~~D.2.10~~**D.2.6**, the Permittee shall maintain records of once per day visible emission notations of the stacks S-1400, S-1401, and S-1504. 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 the compliance status with Condition ~~D.2.11~~**D.2.7**, the Permittee shall maintain daily records of pressure drop and flow rate for the scrubbers identified as S-1400, S-1401, and S-1504 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 pressure drop reading (e.g., the process did not operate that day).

(c) To document the compliance status with Condition ~~D.2.13~~**D.2.9**, the Permittee shall maintain records of the one-hour average sodium bisulfite injection rates of scrubbers S-1400, S-1401, and S-1504.

(d) ***

SECTION D.3 FACILITY OPERATION CONDITIONS – Boilers

~~**Facility Description [326 IAC 2-8-4(10)] :**~~ **Emission Unit Description:**

(i) Four (4) natural gas fired boilers, identified as BL-5001, BL-5002, BL-5003, and BL-5004, approved **in 2009** for construction ~~in 2009~~, with a maximum heat input rate of 92.4 MMBtu/hr, each, and exhausting through stacks **S-**~~BL~~5001, **S-**~~BL~~5002, **S-**~~BL~~5003, and **S-**~~BL~~5004, respectively.

Under NSPS, Subpart Dc, the boilers are considered affected facilities.

(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.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)]~~ **[326 IAC 2-7-5(1)]**

D.3.4**1** ~~FESOP~~ **PSD Minor** Limits [326 IAC 2-2] ~~[326 IAC 2-8-4]~~

~~Pursuant to 326 IAC 2-8-4, and~~ **I**~~i~~n order to render the requirements of 326 IAC 2-2 (PSD) 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 ~~3302.4~~ **3174.2** MMCF per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) NOx emissions shall not exceed ~~19.6~~ **51.0** pounds per MMCF.

(d) CO emissions shall not exceed ~~13.7~~ **51.0** pounds per MMCF.

~~(e) PM emissions shall not exceed 7.6 pounds per MMCF.~~

~~(f) PM10 emissions shall not exceed 7.6 pounds per MMCF.~~

~~(g) PM2.5 emissions shall not exceed 7.6 pounds per MMCF.~~

Compliance with ~~these~~ **the above** limits, **in conjunction with the limits in Condition D.4.1 and** ~~combined with~~ the potential to emit NOx~~,~~ **and** CO~~, PM, PM10, and PM2.5~~ from all other emission units at this source, shall limit the source-wide total potential to emit of NOx~~,~~ **and** CO~~, PM10, and PM2.5~~ to less than ~~100~~ ~~tons per 12 consecutive month period, each, and PM to less than~~ 250 tons per 12 consecutive month period, **each,** and shall render ~~326 IAC 2-7 (Part 70 Permits) and~~ **the requirements of** 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.3.~~5~~**2** Particulate Emissions [326 IAC 6-2-4]

***

~~D.3.6 New Source Performance Standards for Industrial - Commercial - Institutional Steam Generating Units [326 IAC 12][40 CFR 60, Subpart Dc]~~

~~Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall comply with the requirements of Section E.2 for the boilers.~~

D.3.~~7~~**3** Preventive Maintenance Plan [~~326 IAC 2-8-4(9)]~~**[326 IAC 2-7-5(12)]**

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.3.~~8~~**4** 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~~**D.3.1**, the Permittee shall perform NOx and CO testing for one of the boilers (BL-5001, BL-5002, BL-5003, and BL-5004) ~~not later than 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 the most recent valid compliance demonstration. **The source will test the boiler for which the longest period of time has passed since the last valid compliance test.** Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

Record Keeping and Reporting Requirements ~~[326 IAC 2-8-4(3)] [326 IAC 2-8-16]~~ **[326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.3.~~9~~**5** Record Keeping Requirements

(a) To document the compliance status with Condition ~~D.3.4~~**D.3.1**, the Permittee shall maintain daily records of the amount of natural gas combusted in the boilers.

(b) ***

D.3.~~10~~**6** Reporting Requirements

A quarterly summary of the information to document compliance status with Condition ~~D.3.4~~ **D.3.1** shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meet**s** the requirements of ~~326 IAC 2-8-5(a)(1)~~ **326 IAC 2-7-6(1)** by ~~the~~ **a** "~~authorized individual~~ **responsible official**" as defined by ~~326 IAC 2-1.1-1(1)~~**326 IAC 2-7-1(34)**.

SECTION D.4 FACILITY OPERATION CONDITIONS – Dryer and Cooling System

~~**Facility Description [326 IAC 2-8-4(10)] :**~~ **Emission Unit Description:**

(j) Two (2) natural gas fired Swiss Combi "Eco-Dry" Dryer Systems, identified as ~~D1802A and D1802B~~**D-1801A and d-1801B**, approved **in 2009** for construction ~~in 2009~~, with a maximum heat input rate of 76.7MMBtu/hr and a design throughput rate of 20 tons per hour of DDGS each, with emissions exhausting through stacks S**T-**1802A and S**T-**1802B.

Note: The basis of the Swiss Combi Dryer System is an indirect heat drying process using a closed steam loop with thermal oxidation. The DDGS cooler is also integrated into the Eco-Dry system.

Under NSPS, Subpart Dc, the Swiss Combi Dryer Systems are considered affected facilities.

(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.4.1 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 thereunder, as well as other applicable local, state, and federal requirements.~~

~~**Effective Date of the Permit**~~

~~D.4.2 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.4.3 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)~~] **[326 IAC 2-7-5(1)]**

D.4.~~4~~**1** ~~FESOP and~~ PSD **and HAP** Minor Limits [326 IAC 2-2] ~~[326 IAC 2-8-4]~~ [326 IAC 2-4.1]

~~Pursuant to 326 IAC 2-8-4 (FESOP), and~~ **I**~~i~~n order to render the requirements of 326 IAC 2-2 (PSD) **and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)** not applicable, the Permittee shall comply with the following emission limits for the Swiss Combi Dryer Systems (~~D1802A and D1802B~~**D-1801a and D-1801B**) which are used to control the emissions from DDGS drying and cooling:

(a) The Swiss Combi Dryer Systems (D-1801A and D-1801B) shall only burn natural gas.

(b) The throughput of DDGS to the Swiss Combi Dryer Systems (D-1801A and D-1801B) shall be limited to 330,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(~~a~~**c**) PM emissions shall not exceed ~~3.71 lbs/hr~~ **0.54 lb/ton** for each stack (S**T-**1802A and S**T-**1802B).

(~~b~~**d**) PM10 emissions shall not exceed ~~3.71 lbs/hr~~ **0.54 lb/ton** for each stack (S**T-**1802A and S**T-**1802B).

(~~c~~**e**) PM2.5 emissions shall not exceed ~~3.71 lbs/hr~~ **0.54 lb/ton** for each stack (S**T-**1802A and S**T-**1802B).

(~~d~~**f**) VOC emissions shall not exceed ~~1.97 lbs/hr~~ **0.41 lb/ton** for each stack (S**T-**1802A and S**T-**1802B).

(~~e~~**g**) CO emissions shall not exceed ~~7.97 lbs/hr~~ **0.95 lb/ton** for each stack (S**T-**1802A and S**T-**1802B).

(~~f~~**h**) SO2 emissions shall not exceed ~~0.407 lbs/hr~~ **0.0106 lb/MMBtu** for each stack (S**T-**1802A and S**T-**1802B).

(~~g~~**i**) NOx emissions shall not exceed ~~6.52 lbs/hr~~ **0.21 lb/MMBtu** for each stack (S**T-**1802A and S**T-**1802B).

(~~h~~**j**) Acetaldehyde emissions shall not exceed 0.65 lbs/hr for each stack (S**T-**1802A and S**T-**1802B).

(~~i~~**k**) Total HAP emissions shall not exceed ~~1.35 lbs/hr~~ **1.37 lbs/hr** for each stack (S**T-**1802A and S**T-**1802B).

Compliance with ~~these~~ **the above** limits, **in conjunction with the limits in Conditions D.1.1, D.2.1, D.3.1, D.5.1 and** ~~combined with~~ the potential to emit PM, PM10, PM2.5, SO2, NOx, VOC, and HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of PM ~~to less than 250 tons per consecutive month period~~, PM10, PM2.5, SO2, NOx, and VOC to less than ~~100~~ **250** tons per 12 consecutive month period, each, any single HAP to less than ten (10) tons per 12 consecutive month period, and total HAPs to less than twenty-five (25) tons per 12 consecutive month period and shall render ~~326 IAC 2-7 (Part 70 Permits),~~ 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable.

D.4.~~5~~**2** VOC Emissions [326 IAC 8-5-6]

***

D.4.~~6~~**3** Particulate Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from each of 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)
~~D1802A~~**D-1801A**	20.~~1~~	30.5
~~D1802B~~**D-1801B**	20.~~1~~	30.5

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

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

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

~~D.4.7 New Source Performance Standards for Industrial - Commercial - Institutional Steam Generating Units [326 IAC 12][40 CFR 60, Subpart Dc]~~

~~Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall comply with the requirements of Section E.2 for the Swiss Combi Dryer Systems.~~

D.4.~~8~~**4** Preventive Maintenance Plan ~~[326 IAC 2-8-4(9)]~~ **[326 IAC 2-7-5(12)]**

***

Compliance Determination Requirements

D.4.~~9~~**5** Particulate Control

In order to comply with Conditions ~~D.4.4~~ **D.4.1** and ~~D.4.5~~**D.4.2**, the Swiss Combi Dryer Systems (~~D1802A and D1802B~~**D-1801A and D-1801B**) shall be in operation and control emissions from the DDGS dryers and coolers at all times that these units are in operation.

D.4.~~10~~**6** Testing Requirements [~~326 IAC 2-8-5(a)(1), (4)]~~ [326 IAC 2-1.1-11]**[326 IAC 8-5-6]**

~~(a)~~ In order to demonstrate compliance with Conditions ~~D.4.4(a) and (d) through (i)~~**D.4.1(c) and (f) through (k)**, ~~D.4.5~~**D.4.2**, and ~~D.4.6~~**D.4.3**, the Permittee shall perform PM, **PM10, PM2.5,** VOC (including emission rate, destruction efficiency, and capture efficiency), NOx, CO, and Acetaldehyde testing for each of the thermal oxidizer stacks (S**T-**1802A and S**T-**1802B) ~~not later than 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 the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. **PM10 and PM2.5 includes filterable and condensable PM.**

~~(b) In order to demonstrate compliance with Conditions D.4.4(b) and (c), the Permittee shall perform PM2.5 and PM10 testing for each of the thermal oxidizer stacks (S1802A and S1802B) not later than 60 days after achieving the maximum capacity, but not later than 180 days after initial startup or not later than 180 days after final promulgation of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008, whichever is later. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable PM.~~

Compliance Monitoring Requirements [~~326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]~~ **[326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

D.4.~~11~~**7** Visible Emissions Notations

(a) Visible emission notations of the stack exhaust from the thermal oxidizers (stacks S**T-**1802A and S**T-**1802B) shall be performed once per day during normal daylight operations. A trained employee or a trained contractor shall record whether emissions are normal or abnormal.

***

(e) If abnormal emissions are observed, the Permittee shall take **a** reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation

with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.4.~~12~~**8** Thermal Oxidation Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the Swiss Combi Dryer Systems (~~D1802A and D1802B~~**D-1801A and D-1801B**) for measuring operating temperature. For the purpose of this condition, continuous means no less than once per fifteen (15) minutes. The output of this system shall be recorded as 3-hour average. ~~From the date of issuance of this permit 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.4.4~~ **D.4.1** and ~~D.4.5~~**D.4.2**.

(c) On and after the date the stack test results are available, the Permittee shall operate the thermal oxidizers at or above the hourly average temperature as observed during the compliant stack test. **If the 3-hour average temperature falls below the level observed during the latest compliant stack test, the Permittee shall take a reasonable response.**

(d) Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.4.~~13~~**9** Parametric Monitoring

(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.4.4~~ **D.4.1** and ~~D.4.5~~**D.4.2**.

(b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizers are in operation. On and after the date the 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.

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

(d) When, for any one reading, the duct pressure or fan amperage is outside the appropriate range, the Permittee shall take a reasonable response. Section C - Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

Record Keeping and Reporting Requirement [~~326 IAC 2-8-4(3)] [326 IAC 2-8-16~~] **[326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.4.~~14~~**10** Record Keeping Requirements

(a) To document the compliance status with Condition D.4.1, the Permittee shall maintain daily records of the amount of natural gas combusted in the Swiss Combi Dryer Systems (D-1801A and D-1801B).

(~~a~~**b**) To document the compliance status with Condition ~~D.4.11~~**D.4.7**, the Permittee shall maintain records of once per day visible emission notations of stacks S**T-**1802A and S**T-**1802B. 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~~**c**) To document the compliance status with Condition ~~D.4.12~~**D.4.8**, the Permittee shall maintain continuous temperature records for the thermal oxidizers and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test. The Permittee shall include in its daily record when a temperature reading is not taken and the reason for the lack of temperature reading (e.g., the process did not operate that day).

(~~c~~**d**) To document the compliance status with Condition ~~D.4.13~~**D.4.9**, the Permittee shall maintain daily records of the duct pressure or fan amperage for the thermal oxidizers. The Permittee shall include in its daily record when a pressure or fan amperage reading is not taken and the reason for the lack of pressure or fan amperage reading (e.g., the process did not operate that day).

(~~d~~**e**) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.4.11 Reporting Requirements

A quarterly summary of the information to document compliance status with Condition D.4.1 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.5 FACILITY OPERATION CONDITIONS – Ethanol Loading Racks

~~**Facility Description [326 IAC 2-8-4(10)]:**~~ **Emission Unit Description:**

(k) One (1) ethanol and E85 loading rack for trucks and railcars, identified as ~~EP2101~~**L-2101D**, approved **in 2009** for construction ~~in 2009~~, with a ~~maximum~~ **rated** throughput rate of 4,200 gallons per minute for trucks and railcars **and a maximum operating capacity of 180,600 gallons per hour for trucks and railcars**, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as **C-**~~S~~2101, and exhausting through stack S-2101.

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

(l) One (1) ethanol and E85 loading rack for barges, identified as EP-2501, approved **in 2009** for construction ~~in 2009~~, with a maximum throughput rate of 4,200 gallons per minute, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as S-2501, and exhausting through stack S-2501.

Under NSPS, Subpart VVa, equipment (as defined in 40 CFR 60.481a) 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.5.1 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 thereunder, as well as other applicable local, state, and federal requirements.~~

~~Effective Date of the Permit~~

~~D.5.2 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.5.3 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)]~~ **[326 IAC 2-7-5(1)]**

D.5.~~4~~**1** ~~FESOP~~ **PSD Minor** Limits [326 IAC 2-2] ~~[326 IAC 2-8-4]~~

~~Pursuant to 326 IAC 2-8-4 (FESOP), and~~ **I**~~i~~n order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following emission limits for the ethanol loading racks:

(a) The combined total denatured ethanol and E85 load-out rate shall not exceed 135,714,290 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The VOC emissions from **C-**~~S~~2101 shall not exceed ~~0.0835~~ **0.2946** lbs/kgal.

(c) The VOC emissions from S-2501 shall not exceed ~~0.0835~~ **0.2946** lbs/kgal.

(d) The Permittee shall use a carbon adsorption/absorption hydrocarbon vapor recovery system identified as **C-**~~S~~2101 to control the emissions from ethanol loading to trucks and railcars (~~EP2101~~**L-2101D**).

(e) The Permittee shall use a carbon adsorption/absorption hydrocarbon vapor recovery system identified as S-2501 to control the emissions from ethanol loading to barges (EP-2501).

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

(g) The railcars, trucks, and barges shall not use vapor balance services.

Compliance with ~~these~~ **the above** limits, **in conjunction with the limits in Conditions D.2.1, D.4.1 and** ~~combined with~~ the potential to emit VOC from all other emission units at this source, shall limit the source-wide total potential to emit of VOC to less than ~~100~~ **250** tons per 12 consecutive month period, and shall render ~~326 IAC 2-7 (Part 70 Permits) and~~ **the requirements of** 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) **not applicable**.

D.5.~~5~~**2** VOC Emissions [Commissioner's Order and Variance]

***

~~D.5.6 Equipment Leaks of VOC [326 IAC 12][40 CFR 60, Subpart VVa]~~

~~Pursuant to 40 CFR 60, Subpart VVa, the Permittee shall comply with the requirements of Section E.1 for pumps; compressors; pressure relief devices in gas/vapor service; sampling connection systems; open-ended valves or lines; and valves.~~

D.5.~~7~~**3** Preventive Maintenance Plan [~~326 IAC 2-8-4(9)~~] **[326 IAC 2-7-5(12)]**

***

Compliance Determination Requirements

D.5.~~8~~**4** VOC Control

In order to comply with Conditions ~~D.5.4~~ **D.5.1** and ~~D.5.5~~**D.5.2**, carbon adsorption/absorption vapor recovery systems (**C-**~~S~~2101 and S-2501) shall be in operation and control emissions from the ethanol loading system at all times when these units are in operation.

D.5.~~9~~**5** Testing Requirements ~~[326 IAC 2-8-5(a)(1), (4)]~~ [326 IAC 2-1.1-11] [326 IAC 2-2]

In order to demonstrate compliance with Conditions ~~D.5.4~~ **D.5.1** and ~~D.5.5~~**D.5.2**, the Permittee shall perform VOC (including emission rate, adsorption/adsorption efficiency, and capture efficiency) testing for the carbon adsorption/absorption vapor recovery systems (**C-**~~S~~2101 and S-2501), ~~not later than 60 days after achieving the maximum production, 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 the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

Compliance Monitoring Requirements ~~[326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]~~ **[326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

D.5.~~10~~**6** Carbon Bed Regeneration Pressure

The Permittee shall monitor and record the carbon bed regeneration pressure for each carbon adsorption/absorption hydrocarbon vapor recovery system (**C-**~~S~~2101 and S-2501) when the ethanol loading systems (~~EP2101~~ **L-2101D** and EP-2501) are in operation at least once per day. The carbon bed regeneration pressure for each carbon adsorption/absorption hydrocarbon vapor recovery system (**C-**~~S~~2101 and S-2501) shall achieve **a minimum** 3 inches Hg during the regeneration cycle of the carbon beds. When for any one reading, the carbon bed regeneration pressure is outside the above mentioned **minimum** ~~range~~ **rate** or ~~a range~~ **the minimum rate** established during the latest stack test, the Permittee shall take **a** reasonable response ~~steps~~. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. ~~A pressure reading that is outside the above mentioned range is not a deviation from this permit.~~ Failure to take response steps shall be considered a deviation from this permit.

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

D.5.~~11~~**7** High Adsorber Bed Temperature

The Permittee shall monitor and record the high adsorber bed temperature for each carbon adsorption/absorption hydrocarbon vapor recovery system (**C-**~~S~~2101 and S-2501) when the ethanol loading systems (~~EP2101~~**L-2101D** and EP-2501) are in operation at least once per day. The high adsorber bed temperature for each carbon adsorption/absorption hydrocarbon vapor recovery system (**C-**~~S~~2101 and S-2501) shall be maintained at a temperature below 200°F. When for any one reading, the high adsorber bed temperature is ~~outside the~~ above **the above** mentioned ~~range~~ **maximum** or a ~~range~~ **maximum temperature** established during the latest stack test, the Permittee shall take **a** reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps

required by this condition. ~~A temperature reading that is outside the above mentioned range is not a deviation from this permit.~~ Failure to take response steps shall be considered a deviation from this permit.

The instruments used for determining the high adsorber bed temperature shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

Record Keeping and Reporting Requirement ~~[326 IAC 2-8-4(3)] [326 IAC 2-8-16]~~ **[326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.5.~~12~~**8** Record Keeping Requirements

(a) To document the compliance status with Condition ~~D.5.4~~**D.5.1**(a), the Permittee shall maintain monthly records of the combined total amount of denatured ethanol and E85 loaded out from the ethanol loading racks.

(b) To document the compliance status with Condition ~~D.5.10~~**D.5.6**, the Permittee shall maintain records of the carbon bed regeneration pressure for each carbon adsorption/absorption hydrocarbon vapor recovery system (**C-**~~S~~2101 and S-2501). The Permittee shall include in its daily record when a pressure reading is not taken and the reason for the lack of pressure reading (e.g., the process did not operate that day).

(c) To document the compliance status with Condition ~~D.5.11~~**D.5.7**, the Permittee shall maintain records of the high adsorber bed temperature for each carbon adsorption/absorption hydrocarbon vapor recovery system (**C-**~~S~~2101 and S-2501). The Permittee shall include in its daily record when a temperature reading is not taken and the reason for the lack of temperature reading (e.g., the process did not operate that day).

(d) ***

D.5.~~13~~**9** Reporting Requirements

A quarterly summary of the information to document compliance status with Condition ~~D.5.4~~**D.5.1**(a) shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meet**s** the requirements of ~~326 IAC 2-8-5(a)(1)~~ **326 IAC 2-7-6(1)** by ~~the~~ **a** "~~authorized individual~~ **responsible official**" as defined by ~~326 IAC 2-1.1-1(1)~~ **326 IAC 2-7-1(34)**.

~~**SECTION D.6 FACILITY OPERATION CONDITIONS – Diesel Generator**~~

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

~~(a) One (1) diesel fired stationary fire pump, identified as P7075B, approved for construction in 2009, with a maximum power output rate of 460 horsepower, and exhausting through stack P7075B. [326 IAC 2-8-4]~~

~~Under NSPS, Subpart IIII, the diesel fire pump is considered a new certified National Fire Protection Association (NFPA) fire pump.~~

~~(b) One (1) emergency diesel generator, identified as GN7000, approved for construction in 2009, with a maximum power output rate of 1,495 horsepower, and exhausting through stack GN7000.~~

~~Under NSPS, Subpart IIII, the emergency diesel generator is considered a new stationary compression ignition internal combustion engine.~~

~~(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.6.1 FESOP Limits [326 IAC 2-2] [326 IAC 2-8-4] [326 IAC 2-4.1]~~

~~(a) Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the operating hours for the diesel fired stationary fire pump, identified as P7075B, shall not exceed 500 hours per twelve (12) consecutive month period with compliance determined at the end of each month.~~

~~(b) Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the operating hours for the emergency diesel generator, identified as GN7000, shall not exceed 300 hours per twelve (12) consecutive month period with compliance determined at the end of each month.~~

~~Compliance with these limits, combined with the potential to emit NOx and CO from all other emission units at this source, shall limit the source-wide total potential to emit of NOx and CO to less than 100 tons per 12 consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)).~~

~~D.6.2 Internal Combustion Engine [326 IAC 12] [40 CFR 60, Subpart IIII]~~

~~Pursuant to 40 CFR 60, Subpart IIII, the Permittee shall comply with the requirements of Section E.4 for the fire pump, identified as P7075B and the emergency diesel generator, identified as GN7000.~~

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

~~D.6.3 Record Keeping Requirements~~

~~(a) To document the compliance status with Condition D.6.1(a), the Permittee shall maintain monthly records of the operating hours for P7075B.~~

~~(b) To document the compliance status with Condition D.6.1(b), the Permittee shall maintain monthly records of the operating hours for GN7000.~~

~~(c) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.~~

~~D.6.4 Reporting Requirements~~

~~A quarterly summary of the information to document compliance status with Condition D.6.1 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meet the requirements of 326 IAC 2-8-5(a)(1) by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

SECTION D.~~7~~6 FACILITY OPERATION CONDITIONS – ~~Storage Tanks~~ Insignificant Activities

~~**Facility Description [326 IAC 2-8-4(10)]:**~~ **Emission unit Description: Insignificant Activities**
(**d**) **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. [326 IAC 6-3-2]**
(~~i~~**e**) 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 storage tank, identified as T-2104, with a maximum capacity of 128,800 gallons equipped with an internal floating roof for VOC emissions control. [326 IAC 8-4-3] [40 CFR 60, Subpart Kb]

~~(2) Three (3) tanks for storage of denatured fuel ethanol and/or E-85, identified as T2102, T2103, and T2105 each with a maximum capacity of 1,015,164 gallons, and each equipped with an internal floating roof for VOC emissions control. [40 CFR 60, Subpart Kb]~~

~~(4) Two (2) fixed-roof anhydrous ethanol storage tanks (shift tanks), identified as T2110 and T2111, each with a maximum capacity of 250,000 gallons, and each equipped with an internal floating roof for VOC emissions control. [40 CFR 60, Subpart Kb]~~

Under NSPS, Subpart Kb, storage tank~~s~~ T-2104~~, T2102, T2103, T105, T2110, and T2111~~ ~~are~~ **is** considered **a** volatile organic liquid storage vessel~~s~~.

(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)]~~ **[326 IAC 2-7-5(1)]**

D.~~7~~**6**.1 Volatile Organic Compounds (VOC) [326 IAC 8-4-3]

***

~~D.7.2 Storage Tanks [326 IAC 12][40 CFR 60, Subpart Kb]~~

~~Pursuant to 40 CFR 60, Subpart Kb, the Permittee shall comply with the requirements of Section E.3 for T2102, T2103, T2104, T2105, T2110, and T2111.~~

D.6.2 Particulate Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emissions from each grinding and machining operation 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, and pneumatic conveying shall be calculated using the following equation:

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

$$E = 4.10\ P^{0.67}$$ **where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour**

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

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

D.~~7.3~~**6.3**Preventive Maintenance Plan ~~[326 IAC 2-8-4(9)]~~ **[326 IAC 2-7-5(12)]**

A Preventive Maintenance Plan is required for ~~T2104~~ **these facilities and any control devices**. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Record Keeping and Reporting Requirement ~~[326 IAC 2-8-4(3)] [326 IAC 2-8-16]~~ **[326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.~~7.4~~**6.4**Record Keeping Requirements

(a) To document the compliance status with Condition D.~~7~~**6**.1, the Permittee shall maintain the following records for T-2104:

(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 vessels.

(b) ***

SECTION E.1 FACILITY OPERATION CONDITIONS **- 40 CFR 60, Subpart VVa**

~~**Facility Description [326 IAC 2-8-4(10)]:**~~ **Emission Unit Description:**

(g) One (1) fermentation process, approved **in 2009** for construction ~~in 2009~~, with a maximum throughput rate of 12,000 gallons of anhydrous ethanol per hour, consisting of the following major equipment:

(1) One (1) prefermenter tank, identified as T-1400, using a wet scrubber (S1400) and sodium bisulfite injection for VOC control, exhausting through stack S1400.

(2) Six (6) main fermenters and one (1) beer well, identified as T-1401 through T-1407, using a wet scrubber (S1401), and sodium bisulfite injection for VOC control, exhausting through stack S1401.

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

(h) One (1) distillation process, approved **in 2009** for construction ~~in 2009~~, with a maximum throughput rate of 12,000 gallons of anhydrous ethanol per hour, using a wet scrubber, (S-1504) and sodium bisulfite injection for VOC control, exhausting through stack S-1504, and consisting of the following major equipment:

(1) One (1) beer column identified as C-1510.

(2) One (1) stripping column identified as C-1520.

(3) One (1) rectifying column identified as C-1530.

(4) One (1) four-~~tower~~**bottle** molecular sieve unit, with associated heat exchangers and pumps.

(5) One (1) degas column identified as C-1500.

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

(k) One (1) ethanol and E85 loading rack for trucks and railcars, identified as ~~EP2101~~**L-2101D**, approved **in 2009** for construction ~~in 2009~~, with a ~~maximum~~ **rated** throughput rate of 4,200 gallons per minute for trucks and railcars **and a maximum operating capacity of 180,600 gallons per hour for trucks and railcars**, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as **C-**~~S~~2101, and exhausting through stack S-2101.

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

(l) One (1) ethanol and E85 loading rack for barges, identified as EP-2501, approved **in 2009** for construction ~~in 2009~~, with a maximum throughput rate of 4,200 gallons per minute, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as S-2501, and exhausting through stack S-2501.

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

Insignificant Activities

(e) 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:

(4) One (1) corn oil separation process, approved in 2012 for construction, with a maximum throughput of 3,500,000 gallons per year, and consisting of the following:

(A) Two (2) tricanter centrifuges, uncontrolled, and exhausting inside.

(B) Four (4) storage tanks, storing corn oil, each with a maximum capacity of 9,500 gallons, and controlled by the distillation scrubber (S-1504).

(C) Seven (7) process tanks, uncontrolled, exhausting inside, and consisting of the following:

(i) One (1) 560 gallon tank;

(ii) One (1) 270 gallon tank;

(iii) One (1) 3,759 gallon tank;

(iv) One (1) 1,000 gallon tank;

(v) One (1) 450 gallon tank;

(vi) One (1) 400 gallon tank; and

(vii) One (1) 205 gallon tank.

Under NSPS, Subpart VVa, equipment (as defined in 40 CFR 60.481a) 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.)

SECTION E.2 FACILITY OPERATION CONDITIONS **- 40 CFR 60, Subpart Dc**

~~**Facility Description [326 IAC 2-8-4(10)]:**~~ **Emission Unit Description:**

(i) Four (4) natural gas fired boilers, identified as BL-5001, BL-5002, BL-5003, and BL-5004, approved **in 2009** for construction ~~in 2009~~, with a maximum heat input rate of 92.4 MMBtu/hr, each, and exhausting through stacks ~~BL5001, BL5002, BL5003, and BL5004~~**S-5001, S-5002, S-5003, and S-5004**, respectively.

Under NSPS, Subpart Dc, the boilers are considered affected facilities.

(j) Two (2) natural gas fired Swiss Combi "Eco-Dry" Dryer Systems, identified as ~~D1802A and D1802B~~**D-1801A and D-1801B**, approved **in 2009** for construction ~~in 2009~~, with a maximum heat input rate of 76.7MMBtu/hr and a design throughput rate of 20 tons per hour of DDGS each, with emissions exhausting through stacks S**T-**1802A and S**T-**1802B.

Note: The basis of the Swiss Combi Dryer System is an indirect heat drying process using a closed steam loop with thermal oxidation. The DDGS cooler is also integrated into the Eco-Dry system.

Under NSPS, Subpart Dc, the Swiss Combi Dryer Systems are considered affected facilities.

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

SECTION E.3 FACILITY OPERATION CONDITIONS **- 40 CFR 60, Subpart Kb**

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

(~~i~~**e**) 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 storage tank, identified as T-2104, with a maximum capacity of 128,800 gallons equipped with an internal floating roof for VOC emissions control. [326 IAC 8-4-3] [40 CFR 60, Subpart Kb]

(2) Three (3) tanks for storage of denatured fuel ethanol and/or E-85, identified as T-2102, T-2103, and T-2105 each with a maximum capacity of 1,015,164 gallons, and each equipped with an internal floating roof for VOC emissions control. [40 CFR 60, Subpart Kb]

(4) Two (2) fixed-roof anhydrous ethanol storage tanks (shift tanks), identified as T-2110 and T-2111, each with a maximum capacity of 250,000 gallons, and each equipped with an internal floating roof for VOC emissions control. [40 CFR 60, Subpart Kb]

Under NSPS, Subpart Kb, storage tanks T-2104, T-2102, T-2103, T-2105, T-2110, and T2111 are considered volatile organic liquid storage vessels.

(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]

***

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) **(included as Attachment D of this permit)**, which are incorporated by reference as 326 IAC 12, for tanks T-2102, T-2103, T-2104, T-2105, T-2110, and T-2111 as specified as follows:

(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

SECTION E.4 FACILITY OPERATION CONDITIONS **- 40 CFR 60, Subpart IIII**

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

(a) One (1) diesel fired stationary fire pump, identified as P-7075B, approved **in 2009** for construction ~~in 2009~~, with a maximum power output rate of 460 horsepower, and exhausting through stack P-7075B. [326 IAC 2-8-4]

Under NSPS, Subpart IIII **and NESHAP, Subpart ZZZZ**, the diesel fire pump is considered a new certified National Fire Protection Association (NFPA) fire pump.

(b) One (1) emergency diesel generator, identified as GN-7000, approved **in 2009** for construction ~~in 2009~~, with a maximum power output rate of 1,495 horsepower, and exhausting through stack GN-7000.

Under NSPS, Subpart IIII **and NESHAP, Subpart ZZZZ,** the emergency diesel generator is considered a new stationary compression ignition internal combustion engine.

(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]

***

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 **(included as Attachment E of this permit)**, which are incorporated by reference as 326 IAC 12, for the fire pump, identified as P-7075B and the diesel generator, identified as GN-7000, as specified as follows:

(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(~~b~~**c**)
(5) 40 CFR 60.4206
(6) 40 CFR 60.4207(a)
(7) 40 CFR 60.4207(b)
~~(8) 40 CFR 60.4207(c)~~
(~~9~~**8**) 40 CFR 60.4208
(~~10~~**9**) 40 CFR 60.4209(a)
(~~11~~**10**) 40 CFR 60.4211(a)
(~~12~~**11**) 40 CFR 60.4211(c)
(~~13~~**12**) 40 CFR 60.4211(e)
(~~14~~**13**) 40 CFR 60.4212
(~~15~~**14**) 40 CFR 60.4214(b)
(~~16~~**15**) 40 CFR 60.4218
(~~17~~**16**) 40 CFR 60.4219
(~~18~~**17**) Tables 5 and 8

SECTION E.5 FACILITY OPERATION CONDITIONS - 40 CFR 63, Subpart ZZZZ

Emission Unit Description: Insignificant Activities

(a) One (1) diesel fired stationary fire pump, identified as P-7075B, approved in 2009 for construction, with a maximum power output rate of 460 horsepower, and exhausting through stack P-7075B. [326 IAC 2-8-4]

Under NSPS, Subpart IIII and NESHAP, Subpart ZZZZ, the diesel fire pump is considered a new certified National Fire Protection Association (NFPA) fire pump.

(b) One (1) emergency diesel generator, identified as GN-7000, approved in 2009 for construction, with a maximum power output rate of 1,495 horsepower, and exhausting through stack GN-7000.

Under NSPS, Subpart IIII, and NESHAP, Subpart ZZZZ, the emergency diesel generator is considered a new stationary compression ignition internal combustion engine.

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

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

E.5.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.6580, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the reciprocating internal combustion engines as specified in

40 CFR Part 63, Subpart ZZZZ in accordance with the schedule in 40 CFR 63, Subpart ZZZZ.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

E.5.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR Part 63, Subpart ZZZZ][326 IAC 20-82]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment F of this permit) which are incorporated by reference as 326 IAC 20-82 for the reciprocating internal combustion engines:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585 (a), (c), & (d)
(3) 40 CFR 63.6590 (a)(2)(iii), & (c)(1)
(4) 40 CFR 63.6670
(5) 40 CFR 63.6675
(6) Table 8

SECTION E.6 FACILITY OPERATION CONDITIONS - 40 CFR 63, Subpart BBBBBB

Emissions Unit Description:

(k) One (1) ethanol and E85 loading rack for trucks and railcars, identified as L-2101D, approved in 2009 for construction, with a rated throughput rate of 4,200 gallons per minute for trucks and railcars and a maximum operating capacity of 180,600 gallons per hour for trucks and railcars, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as C-2101, and exhausting through stack S-2101.

Under NSPS, Subpart VVa, equipment (as defined in 40 CFR 60.481a) within a process unit is an affected facility. Under NESHAP, Subpart BBBBBB this is a new affected unit.

(l) One (1) ethanol and E85 loading rack for barges, identified as EP-2501, approved in 2009 for construction, with a maximum throughput rate of 4,200 gallons per minute, controlled by a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as S-2501, and exhausting through stack S-2501.

Under NSPS, Subpart VVa, equipment (as defined in 40 CFR 60.481a) within a process unit is an affected facility. Under NESHAP, Subpart BBBBBB this is a new affected unit.

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

National Emissions Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(10]

E.6.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [40 CFR Part 63, Subpart A][326 IAC 20-1]

(a) Pursuant to 40 CFR 63.11098, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1for the loading racks as specified in 40 CFR Part 63, Subpart BBBBBB in accordance with the schedule in 40 CFR 63, Subpart BBBBBB.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

E.6.2 National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities [40 CFR Part 63, Subpart BBBBBB]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart BBBBBB (included as Attachment G) for the loading racks:

(1) 40 CFR 63.11080
(2) 40 CFR 63.11081 (a)(1), (b), (c), (e), (f), (g), (h), (i), (j)
(3) 40 CFR 63.11082 (a), (b)
(4) 40 CFR 63.11083 (a)(2)
(5) 40 CFR 63.11085
(6) 40 CFR 63.11087
(7) 40 CFR 63.11088
(8) 40 CFR 63.11089
(9) 40 CFR 63.11092
(10) 40 CFR 63.11093
(11) 40 CFR 63.11094
(12) 40 CFR 63.11095 (a), (b), (d)
(13) 40 CFR 63.11098
(14) 40 CFR 63.11099
(15) 40 CFR 63.11100
(16) Table 1
(17) Table 2
(18) Table 3

SECTION E.7 FACILITY OPERATION CONDITIONS - 40 CFR 63, Subpart CCCCCC

Emissions Unit Description: Insignificant Activities

(f) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment.

(1) One (1) gasoline tank, approved in 2009 for construction, with a maximum capacity of 500 gallons and an estimated monthly throughput of 140 gallons.

Under NESHAP, Subpart CCCCCC this is considered a new affected unit.

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

National Emissions Standards for Hazardous Air Pollutants (NESHAP) Requirements

E.7.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [40 CFR Part 63, Subpart A][326 IAC 20-1]

(a) Pursuant to 40 CFR 63.11098, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference

as 326 IAC 20-1for the gasonline tank as specified in 40 CFR Part 63, Subpart CCCCCC in accordance with the schedule in 40 CFR 63, Subpart CCCCCC.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

E.7.2 National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities [40 CFR Part 63, Subpart CCCCCC]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart CCCCCC (included as Attachment H) for the gasoline tank:

(1) 40 CFR 63.11110
(2) 40 CFR 63.11111 (a), (b), (e), (f), (h), (i), (j), (k)
(3) 40 CFR 63.11112 (a), (b)
(4) 40 CFR 63.11113 (a)(2)
(5) 40 CFR 63.11115
(6) 40 CFR 63.11116
(7) 40 CFR 63.11125 (d)
(8) 40 CFR 63.11130
(9) 40 CFR 63.11131
(10) 40 CFR 63.11132
(11) Table 3

Conclusion and Recommendation

The operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Operating Permit No. T129-31150-00050. The staff recommend to the Commissioner that this Part 70 Operating Permit be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Kristen Willoughby at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-3031 or toll free at 1-800-451-6027 extension 3-3031.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

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

Appendix A: Emission Calculations
PM, PM10, and PM2.5 Emissions
From the Grain Receiving and Handling Operations

Company Name: Abengoa Bioenergy of Indiana, LLC
Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Operating Permit: T129-31150-00050
Reviewer: Kristen Willoughby

1. Potential to Emit PM/PM10/PM2.5 - Captured Emissions:

Baghouse ID	Process Description	Control Device	Outlet Grain Loading (gr/dscf)	Maximum Air Flow Rate (scfm)	PTE of PM/PM10/PM2.5 after Control (lbs/hr)	PTE of PM/PM10/PM2.5 after Control (tons/yr)	Limited PM/PM10/PM2.5 (tons/yr)	Control Efficiency (%)	PTE of PM/PM10PM2.5 before Control (tons/yr)
F-1101	Truck/Rail Grain Receiving and Grain Conveying	Baghouse	0.005	24,000	1.03	4.51	13.52	99%	450.51
F-1102	Truck Grain Receiving and Grain Conveying	Baghouse	0.005	10,000	0.43	1.88	5.63	99%	187.71
F-2003A	Bin Baghouse	Baghouse	0.005	1,000	0.04	0.19	0.56	99%	18.77
F-2003B	Bin Baghouse	Baghouse	0.005	1,000	0.04	0.19	0.56	99%	18.77
F-2004A	Bin Baghouse	Baghouse	0.005	1,000	0.04	0.19	0.56	99%	18.77
F-2004B	Bin Baghouse	Baghouse	0.005	1,000	0.04	0.19	0.56	99%	18.77
F-1200	Mill Surge and Corn Scalper Baghouse	Baghouse	0.005	1,000	0.04	0.19	0.56	99%	18.77
F-1205	Hammermill	Baghouse	0.005	6,000	0.26	1.13	3.38	99%	112.63
F-1206	Hammermill	Baghouse	0.005	6,000	0.26	1.13	3.38	99%	112.63
F-1207	Hammermill	Baghouse	0.005	6,000	0.26	1.13	3.38	99%	112.63
F-1208	Hammermill	Baghouse	0.005	6,000	0.26	1.13	3.38	99%	112.63
F-2251	Pellet Cyclone	Baghouse	0.005	12,000	0.51	2.25	6.76	99%	225.26
F-2252	Pellet Cyclone	Baghouse	0.005	12,000	0.51	2.25	6.76	99%	225.26
Total						16.33	48.99		1,633.11

Assume all PM emissions equal PM10 and PM2.5 emissions.

Methodology

PTE of PM/PM10/PM2.5 after Control (lbs/hr) = Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 mins/hr x 1/7000 lb/gr
PTE of PM/PM10/PM2.5 after Control (tons/yr) = 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/PM2.5 before Control (tons/yr) = PTE of PM/PM10 after Control (tons/yr) / (1-Control Efficiency)

2. Potential to Emit PM/PM10/PM2.5 - Fugitive Emissions:

Unit ID	Unit Description	Maximum Throughput (tons/yr)	Uncontrolled PM Emission Factor (lbs/ton)	Uncontrolled PM10 Emission Factor (lbs/ton)	Uncontrolled PM2.5 Emission Factor (lbs/ton)	Baghouse ID	Capture Efficiency* (%)	Fugitive PM Emissions (tons/yr)	Fugitive PM10 Emissions (tons/yr)	Fugitive PM2.5 Emissions (tons/yr)
N/A	Grain Receiving (T-1101)	1,000,000	0.180	0.0590	0.0100	DC1102	95%	4.50	1.48	0.25
Total								**4.50**	**1.48**	**0.25**

Note: Emission factors are from AP-42, Chapter 9.9.1 - Grain Elevators, Table 9.9.1-1 (04/03).
*Reduction in fugitive emissions is 95% - based on use of choked flow system during grain unloading and capture of most emission by the baghouse system.
The Permittee stated that there are no fugitive emissions from the grain handling operations because the emissions from these units are 100% captured

Methodology

Fugitive PM/PM10 (tons/yr) = Annual Throughput (tons/yr) x Uncontrolled Emission Factor (lbs/ton) x (1-Capture Efficiency%) x 1 ton/2000 lbs

Appendix A: Emission Calculations
PM, PM10, and PM2.5 Emissions
From the DDGS Handling, Loadout, and Storage Operations

Company Name: Abengoa Bioenergy of Indiana, LLC
Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Operating Permit: T129-31150-00050
Reviewer: Kristen Willoughby

1. Potential to Emit PM/PM10/PM2.5 - Captured Emissions:

Baghouse ID	Process Description	Control Device	Outlet Grain Loading (gr/dscf)	Maximum Air Flow Rate (scfm)	PTE of PM/PM10/PM2.5 after Control (lbs/hr)	PTE of PM/PM10/PM2.5 after Control (tons/yr)	Limited PM/PM10/PM2.5 (tons/yr)	Control Efficiency (%)	PTE of PM/PM10/PM2.5 before Control (tons/yr)
S-2252	DDGS Barge Unloading	Baghouse	0.005	24,000	1.03	4.51	13.52	99%	450.51
LS-2201	DDGS Loadout Truck	Baghouse	0.005	1,400	0.06	0.26	0.79	99%	26.3
LS-2202A	DDGS Loadout Rail	Baghouse	0.005	1,400	0.06	0.26	0.79	99%	26.3
LS-202B	DDGS Loadout Rail	Baghouse	0.005	1,400	0.06	0.26	0.79	99%	26.3
LS-2202C	DDGS Loadout Rail	Baghouse	0.005	1,400	0.06	0.26	0.79	99%	26.3
DC-2251	DDGS Loadout Barge	Baghouse	0.005	15,000	0.64	2.82	8.45	99%	281.6
Total						**8.37**	**25.12**		**837.2**

Assume all PM emissions equal PM10 and PM2.5 emissions.

Methodology

PTE of PM/PM10/PM2.5 after Control (lbs/hr) = Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 mins/hr x 1/7000 lb/gr
PTE of PM/PM10/PM2.5 after Control (tons/yr) = 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/PM2.5 before Control (tons/yr) = PTE of PM/PM10 after Control (tons/yr) / (1-Control Efficiency)

2. Potential to Emit PM/PM10/PM2.5 - Fugitive Emissions:

Unit ID	Unit Description	Annual Throughput Limit (tons/yr)	Uncontrolled PM Emission Factor (lbs/ton)	Uncontrolled PM10 Emission Factor (lbs/ton)	Uncontrolled PM2.5 Emission Factor (lbs/ton)	Capture Efficiency (%)	Fugitive PM Emissions (tons/yr)	Fugitive PM10 Emissions (tons/yr)	Fugitive PM2.5 Emissions (tons/yr)
DDGS Handling	DDGS Handling Truck/Rail	825,000	0.0860	0.0290	0.0049	0%	35.48	11.96	2.02
DDGS Handling	DDGS Handling Barge	825,000	0.0860	0.0290	0.0049	0%	35.48	11.96	2.02
DDGS Storage	DDGS Storage	825,000	0.0033	0.0008	0.0008	0%	1.36	0.33	0.33
Total							**72.31**	**24.26**	**4.37**

Note: Emission factors are from AP-42, Chapter 9.9.1 - Grain Elevators, Table 9.9.1-2 (03/03).

Methodology

Fugitive PM/PM10 (tons/yr) = Annual Throughput Limit (tons/yr) x Uncontrolled Emission Factor (lbs/ton) x (1-Capture Efficiency%) x 1 ton/2000 lbs

3. Potential to Emit VOC/HAPs from Wet Cake Storage Pad- Fugitive Emissions:

Annual Throughput (100% Wet Cake): 825000 tons/yr

Emission Unit	Pollutant	Emission Rate (lbs/ton)*	Potential Emissions (tons/yr)**
Wet Cake Pad	VOC	0.0083	3.42
	Acetaldehyde	0.00011	0.045
	Acrolein	0.00002	0.008
	Formaldehyde	0.00022	0.091
	Methanol	0.00004	0.017
	Total HAPs:	**---**	**0.161**

Methodology

* Based on Denco stack testing results (MN).
Fugitive VOC/HAPs (tons/yr) = Annual Throughput (tons/yr) x Emission Factor (lbs/ton) x 1 ton/2000 lbs
** This plant is capable of producing both DDGS and MDGS; however, the emissions from the DDGS production is likely the worst case scenario.
Therefore, the PTE of the wet cake storage is not included in the PTE for the entire source.

Appendix A: Emission Calculations
VOC, HAP, and CO2e Emissions
From the Fermentation and Distillation Processes
(The fermentation and distillation processes will use three (3) scrubbers for controls)

Company Name: Abengoa Bioenergy of Indiana, LLC
Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Operating Permit: T129-31150-00050
Reviewer: Kristen Willoughby

1. 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)	***Limited Emission Rate (lbs/hr)	PTE after Control (tons/yr)	PTE before Control (tons/yr)
Pre-Fermentation Scrubber (S-1400)	167.4	98.0%	3.35	4.50	**14.66**	733.21
Fermentation Scrubber (S-1401)	842.4	98.0%	16.85	20.00	**73.79**	3689.71
Distillation Scrubber (S-1504)	78.1	98.0%	1.56	2.50	**6.84**	342.08
Total VOCs					**95.30**	**4765.00**

*VOC Emission Rates before Control and control efficiencies are based on 4/12 - 4/23/10 stack test data. Worst case emissions rates were selected.
**VOC Emission Rate after Control based upon 98% control of 2010 stack test inlet information
***Limited emission rate based upon based upon 98% control efficiency plus buffer (potential variation in future inlet testing information)

HAPs

Emission Unit	Pollutant	*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)
Pre-Fermentation Scrubber (S-1400)	Acetaldehyde	0.50000	80.0%	0.30	**1.31**	2.19
	Acrolein	0.25000	89.6%	0.06	**0.26**	1.10
	Formaldehyde	0.00600	66.7%	0.05	**0.20**	0.03
	Methanol	0.02200	54.5%	0.05	**0.23**	0.10
Fermentation Scrubber (S-1401)	Acetaldehyde	2.75000	94.5%	0.45	**1.97**	12.05
	Acrolein	0.23000	79.1%	0.27	**1.18**	1.01
	Formaldehyde	0.01900	89.5%	0.16	**0.69**	0.08
	Methanol	0.07900	74.7%	0.16	**0.69**	0.35
Distillation Scrubber (S-1504)	Acetaldehyde	0.67000	94.0%	0.20	**0.88**	2.93
	Acrolein	0.04000	99.0%	0.03	**0.11**	0.18
	Formaldehyde	0.00190	94.7%	0.03	**0.11**	0.01
	Methanol	0.02000	95.0%	0.01	**0.04**	0.09
Total HAPs					**7.68**	**20.10**

*HAP Emission Rates before Control and control efficiencies are based on 4/12 - 4/23/10 stack test data. Worst case emissions rates were selected.
The Permittee will perform stack testing to demonstrate compliance with the above emission rates.

Methodology

Emission Rate after Control (lbs/hr) = Emission Rate before Control (lbs/hr) * (1- Scrubber Control Efficiency)
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

2. Potential to Emit (PTE) of CO2e:

Given:

105,120,000 gallons of anhydrous (200-proof) EtOH / year
46.06844 [g/mol] mole weight of EtOH
0.789 [g/cm^3] density of liquid EtOH
44.0095 [g/mol] mole weight of CO2

and:

$C_6H_{12}O_6$ + yeast = 2 CH_3CH_2OH + 2 CO_2
sugar + yeast = ethanol + carbon dioxide

Therefore:

$$\frac{105{,}120{,}000 \text{ gal 200-proof EtOH}}{\text{year}} \cdot \frac{0.789 \text{ g EtOH}}{1 \text{ cm}^3} \cdot \frac{3{,}785.41 \text{ cm}^3}{1 \text{ gal}}$$

$$= \frac{3.14\text{E}+11 \text{ g EtOH}}{\text{year}} \cdot \frac{1 \text{ mol EtOH}}{46.06844 \text{ g EtOH}}$$

$$= \frac{6{,}815{,}092{,}807 \text{ mol EtOH}}{\text{year}} \cdot \frac{2 \text{ mol } CO_2}{2 \text{ mol EtOH}}$$

$$= \frac{6{,}815{,}092{,}807 \text{ mol } CO_2}{\text{year}} \cdot \frac{44.0095 \text{ g } CO_2}{1 \text{ mol } CO_2} \cdot \frac{1 \text{ ton}}{907{,}184.74 \text{ g}}$$

= 330,615 tons CO_2 / year

= **330,615** CO2e Total in tons/yr

Note: Biogenic CO2 emissions have been deferred from regulation. At this time, these CO2 emissions from the fermentation process are not included in the sourcewide GHG emissions.

Appendix A: Emission Calculations
Natural Gas Combustion Only
MMBTU/HR<100, each
(BL-5001, BL-5002, BL-5003, and BL-5004)
(92.4 MMBtu/hr each)

Company Name: Abengoa Bioenergy of Indiana, LLC
Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Operating Permit: T129-31150-00050
Reviewer: Kristen Willoughby

Heat Input Capacity MMBtu/hr		Potential Throughput MMCF/yr
369.6	(92.4 MMBtu/hr, each)	3174.2

	Pollutant						
	PM*	PM10*	PM2.5*	SO2**	NO_x**	VOC*	CO**
Emission Factor	1.9	7.6	7.6	10.0	51.00	5.5	51.00
Units	lb/MMCF	lb/MMCF	lb/MMCF	lb/MMCF	lb/MMCF	lb/MMCF	lb/MMCF
Potential Emission in tons/yr	3.02	12.06	12.06	15.87	80.94	8.73	80.94

* Emission factors from Fifth Edition AP-42, Section 1.4, "Natural Gas Combustion", 7/98.
*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
** Emission factors are based on data from the manufacturer/vendor of the boilers.
SO2 emission factor greater than AP-42. NOx and CO emission factors less than AP-42, therefore source will test to verify compliance with these emission rates.

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	3.33E-03	1.90E-03	1.19E-01	2.86E+00	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	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. Total 3.00
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	190,453	3.7	3.5
Summed Potential Emissions in tons/yr	190,460		
CO2e Total in tons/yr	191,612		

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
For PM, PM10, SO2, VOC, and HAPs
Potential Throughput (MMCF) = 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
For NOx and CO
Potential Emission in tons/yr = Heat Input Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760 hr/yr x 1 ton/2000lbs
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emission Calculations
Criteria Pollutants
From Two (2) 76.7 MMBtu/hr Natural Gas DDGS Dryers and Cooling Systems Consisting of Two (2) Swiss Combi Systems

Company Name: Abengoa Bioenergy of Indiana, LLC
Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Operating Permit: T129-31150-00050
Reviewer: Kristen Willoughby

Maximum Capacity	**350,400 tons/yr**	**Control**	**(VOC)**	**98%**
	153.4 MMBtu/hr	**Efficiency***	**(PM/PM10/PM2.5)**	**95%**
	1,317.4 MMCF/yr			
Limited Capacity	**330,000 tons/yr**			

	Pollutant						
	PM	PM10	PM2.5	SO_2	NOx	VOC	CO
Emission Factor**	0.5400 (lbs/ton)	0.5400 (lbs/ton)	0.5400 (lbs/ton)	0.0106 (lbs/MMBtu)	0.2100 (lbs/MMBtu)	0.4100 (lbs/ton)	0.9500 (lbs/ton)
Potential to Emit Before Control in tons/yr	1892	1892	1892	7.12	141.1	3591.6	166.4
Potential to Emit After Control in tons/yr	**94.6**	**94.6**	**94.6**	**7.12**	**141.1**	**71.8**	**166.4**
Limited Potential to Emit in tons/yr	**94.6**	**94.6**	**94.6**	**7.12**	**141.1**	**71.8**	**156.8**

* The control efficiencies for the Swiss Combi systems were not provided by the source. However, it is assumed that the Swiss Combi systems will get 95% PM/PM10/PM2.5 control. 326 IAC 8-5-6 requires 98% control efficiency for VOC. All other pollutants are uncontrolled.
**Emission factors are based on after control and are estimated by the manufacturer/vendor of Swiss Combi systems.
The Permittee will perform stack testing to demonstrate compliance with the above emission rates.

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	79,046	1.5	1.4
Summed Potential Emissions in tons/yr	79,049		
CO2e Total in tons/yr	79,527		

Methodology
Potential to Emit Before Control in tons/yr = Potential to Emit After Control (tons/yr) / (1-Control Efficiency)
For SO2 and NOx:
Potential to Emit After Control in tons/yr = Emission Factor (lbs/MMBtu) x Maximum Capacity (MMBtu/hr) x 1 ton/2000 lbs x 8,760 hrs/yr
For all other pollutants:
Potential to Emit After Control in tons/yr = Emission Factor (lbs/ton) x Maximum Capacity (tons/yr) x 1 ton/2000 lbs
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emission Calculations
HAP Emissions
From Two (2) 76.7 MMBtu/hr Natural Gas DDGS Dryers and Cooling Systems Consisting of Two (2) Swiss Combi Systems

Company Name: Abengoa Bioenergy of Indiana, LLC
Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Operating Permit: T129-31150-00050
Reviewer: Kristen Willoughby

Maximum Capacity	**350,400 tons/yr**	**Limited Capacity**	**330,000 tons/yr**
Control Efficiency	**98%**		

Process HAPs	Pollutant				
	Acetaldehyde	Acrolein	Formaldehyde	Methanol	Total
Emission Rate after Control (lb/ton DDGS)*	0.0350	0.0050	0.0220	0.0030	2.60
PTE before Control in tons/yr	**306.60**	**43.80**	**192.72**	**26.28**	**569.40**
PTE after Control in tons/yr	**6.13**	**0.88**	**3.85**	**0.53**	**11.39**
Limited PTE in tons/yr	**5.78**	**0.83**	**3.63**	**0.50**	**10.73**

*HAP emission factors were provided by the source and are based on after control. The Permittee will perform stack tests to verify the HAP emissions from these units.

Methodology
PTE before Control in tons/yr = (PTE after Control in tons/yr) / (1-Control Efficiency)
PTE after Control in tons/yr = Emission Rate after Control (lbs/ton) x Maximum Capacity (tons/yr) x 1 ton/2000 lbs

Natural Gas Combustion HAPs
Potential Throughput
MMCF/yr
1317.4

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	1.38E-03	7.90E-04	4.94E-02	1.19	2.24E-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	3.29E-04	7.25E-04	9.22E-04	2.50E-04	1.38E-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. Total 1.24

Methodology
All Emission factors are based on normal firing.
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Potential Emission in tons/yr = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emission Calculations
VOC and HAP Emissions from Ethanol Loading Racks

Company Name: Abengoa Bioenergy of Indiana, LLC
Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Operating Permit: T129-31150-00050
Reviewer: Kristen Willoughby

1. Emission Factors: AP-42

Denatured ethanol and E85 will be shipped by either truck, railcar, or river barge. The plant capacity will be approximately 100 Mmgal/yr as denatured fuel ethanol or 135.7 Mmgal/yr as E85. In order to provide a worst-case emission estimate, the calculations are based on 100% of plant production being shipped as E85. Railcars will be dedicated fleets, but the trucks and barges may be used to carry gasoline prior to filling with denatured ethanol and E85. Railcars, trucks, and barges will be filled by submerged loading process. Both truck and railcar loadout racks will be controlled by a carbon absoprtion/absorption hydrocarbon vapor recovery system (C-2101), which has a control efficiency of 98% for VOC and HAPs. The Barge loadout rack will be controlled by acarbon absoprtion/absorption hydrocarbon vapor recovery system (S-2501), which has 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:

$$L = 12.46 \times (SPM)/T$$

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	4.942	92	530	10.69
Gasoline (clean cargo)	0.5	4.942	92	530	5.34
E85 (normal)	0.6	1.37	54.19	530	1.05
E85 (clean cargo)	0.5	1.37	54.19	530	0.87

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) = 6.22 (lbs/kgal)

Barge

The AP-42 Emission Factor is calculated from AP-42, Section 5.2.2 - Loading Losses, Table 5.2-2. The emission factor is 3.9 (lbs/kgal)

2. Potential to Emit VOC Before Control:

Max. Loading Rate for Truck Loadout: 252 kgal/hr (for truck loading)

PTE of VOC before Control (tons/yr) = 252 kgal/hr x 6.22 lbs/kgal x 8760 hr/yr x 1 ton/2000 lbs = **6,863 tons/yr**

Max. Loading Rate Rail Loadout: 252 kgal/hr (for railcar loading)

PTE of VOC before Control (tons/yr) = 252 kgal/hr x 1.05 lbs/kgal x 8760 hr/yr x 1 ton/2000 lbs = **1,156 tons/yr**

Max. Loading Rate Barge Loadout: 252 kgal/hr (for barge loading)

PTE of VOC before Control (tons/yr) = 252 kgal/hr x 3.9 lbs/kgal x 8760 hr/yr x 1 ton/2000 lbs = **4,305 tons/yr**

3. Limited Potential to Emit (for Trucks, Railcars, and Barge Loading):

Annual Production Limit: 135,714.29 kgal/yr (for all railcar, truck, and barge loading)
*Vapor Recovery System Emission Rate: 0.2946 lbs VOC/kgal (for truck, railcar, and barge loading) (C-2101 and S-2501)

(1) Assume all E85 is loaded to trucks (controlled by S2101):
PTE of VOC (tons/yr) = 0.2946 lbs/kgal x 135,714.29 kgal/yr x 1 ton/2000 lbs = **19.99 tons/yr**

(2) Assume all E85 is loaded to railcars (controlled by S2101):
PTE of VOC (tons/yr) = 0.2946 lbs/kgal x 135,714.29 kgal/yr x 1 ton/2000 lbs = **19.99 tons/yr**

(3) Assume all E85 is loaded to barges (controlled by S2501):
PTE of VOC (tons/yr) = 0.2946 lbs/kgal x 135,714.29 kgal/yr x 1 ton/2000 lbs = **19.99 tons/yr**

Worst case VOC emissions = **19.99 tons/yr**

*lb VOC/kgal was back calculated based upon information from stack testing for inlet data and using 98% control efficiency

4. Potential to Emit HAPs:

HAP emissions are mainly from the unloading process for trucks and barges, 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	2.50E-03	17.16	5.00E-02
Carbon Disulfide	2.00E-05	0.14	4.00E-04
Cumene	1.00E-04	0.69	2.00E-03
Ethyl benzene	5.00E-05	0.34	1.00E-03
n-Hexane	5.00E-02	343.13	1.00E+00
Toluene	1.00E-02	68.63	2.00E-01
Xylene	5.00E-04	3.43	1.00E-02
Total	**0.06**	**433.5**	**1.26**

* This is the HAP fraction for gasoline vapors.

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 Barge (tons/yr) x HAP %

Appendix A: Emission Calculations
Criteria Pollutants
From the Diesel Fire Pump (P-7075B)

Company Name: Abengoa Bioenergy of Indiana, LLC
Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Operating Permit: T129-31150-00050
Reviewer: Kristen Willoughby

Power Output Horse Power (HP)	Operation Limit hr/yr
460	500

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO_2	NO_x	**VOC	CO
Emission Factor in lb/HP-hr (AP-42)	2.20E-03	2.20E-03	2.20E-03	2.05E-03	3.10E-02	2.47E-03	6.68E-03
Emission Factor in lb/HP-hr (Vendor)	1.54E-04	1.54E-04	1.54E-04	2.05E-03	1.13E-02	1.98E-04	1.04E-03
Potential to Emit in tons/yr (AP-42)	**0.25**	**0.25**	**0.25**	**0.24**	**3.57**	**0.28**	**0.77**
Potential to Emit in tons/yr (Vendor)	**0.02**	**0.02**	**0.02**	**0.24**	**1.30**	**0.02**	**0.12**

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.
** Assume TOC (total organic compounds) emissions are equal to VOC emissions.
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).
Manufacturer guarantee for PM, PM10, NOx, VOC, and CO vendor emission factors.

Hazardous Air Pollutants (HAPs)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06
Potential Emission in tons/yr	7.51E-04	3.29E-04	2.29E-04	3.15E-05	9.50E-04	6.17E-04	7.45E-05	1.35E-04

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Potential Emission of Total HAPs (tons/yr)	**3.12E-03**

Green House Gas Emissions (GHG)

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/hp-hr	1.15E+00	4.63E-05	9.26E-06
Potential Emission in tons/yr	132.25	5.32E-03	1.06E-03

Summed Potential Emissions in tons/yr	**132.26**
CO2e Total in tons/yr	**132.69**

Methodology
Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Potential to Emit in tons/yr = Power Output (HP) x Emission Factor (lb/HP-hr) x Operation Limit (hr/yr) x 1 ton/2000 lbs
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emission Calculations
Criteria Pollutants
From Emergency Generator (GN-7000)

Company Name: Abengoa Bioenergy of Indiana, LLC
Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Operating Permit: T129-31150-00050
Reviewer: Kristen Willoughby

Power Output Horse Power (HP)	Potential Operation hr/yr	Operation Limit hr/yr	Sulfur Content (S) of Fuel (% by weight)
1,495	500	500	0.05

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO_2	NO_x	**VOC	CO
Emission Factor in lb/HP-hr (AP-42)	7.00E-04	4.01E-04	4.01E-04	4.05E-04	2.40E-02	7.05E-04	5.50E-03
Emission Factor in lb/HP-hr (Vendor)	2.15E-04	2.15E-04	2.15E-04	4.05E-04	9.04E-03	3.62E-04	2.37E-03
Unlimited Potential to Emit in tons/yr (AP-42)	**0.26**	**0.15**	**0.15**	**0.15**	**8.97**	**0.26**	**2.06**
Limited Potential to Emit in tons/yr (AP-42)	**0.26**	**0.15**	**0.15**	**0.15**	**8.97**	**0.26**	**2.06**
Limited Potential to Emit in tons/yr (Vendor)	**0.08**	**0.08**	**0.08**	**0.15**	**3.38**	**0.14**	**0.89**

*PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).
** Assume TOC (total organic compounds) emissions are equal to VOC emissions.
Emission factors are from AP-42, Chapter 3.4, Table 3.4-1, SCC #2-02-001-02 and 2-03-001-01 (AP-42 Supplement B, 10/96).
Manufacturer guarantee for PM, PM10, NOx, VOC, and CO vendor emission factors.

Hazardous Air Pollutants (HAPs)

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	5.43E-06	1.97E-06	1.35E-06	5.52E-07	1.76E-07	5.52E-08	1.48E-06
Potential Emission in tons/yr	2.03E-03	7.35E-04	5.05E-04	2.06E-04	6.59E-05	2.06E-05	5.55E-04
Limited Emissions in tons/yr	2.03E-03	7.35E-04	5.05E-04	2.06E-04	6.59E-05	2.06E-05	5.55E-04

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Potential Emission of Total HAPs (tons/yr)	**4.12E-03**
Limited Emissions of Total HAPs (tons/yr)	**4.12E-03**

Green House Gas Emissions (GHG)

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/hp-hr	1.16E+00	6.35E-05	9.30E-06
Potential Emission in tons/yr	4.34E+02	2.37E-02	3.48E-03
Limited Emissions in tons/yr	4.34E+02	2.37E-02	3.48E-03

Summed Potential Emissions in tons/yr	**433.58**
CO2e Total in tons/yr	**435.13**
Limited CO2e in tons/yr	**433.58**

Methodology
Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1 , 3.4-2, 3.4-3, and 3.4-4.
CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Unlimited Potential to Emit in tons/yr = Power Output (HP) x Emission Factor (lb/HP-hr) x Potential Operation (hr/yr) x 1 ton/2000 lbs
Limited Potential to Emit in tons/yr = Power Output (HP) x Emission Factor (lb/HP-hr) x Operation Limit (hr/yr) x 1 ton/2000 lbs
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emission Calculations
PM/PM10/PM2.5 Emissions
From the the Cooling Tower (Insignificant Activity CT-4001)

Company Name: Abengoa Bioenergy of Indiana, LLC
Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Operating Permit: T129-31150-00050
Reviewer: Kristen Willoughby

1. Process Description:

Type of Cooling Tower:	Induced Draft	
Circulation Flow Rate:	44,850	gal/min
Total Drift:	0.005%	of the circulating flow
Total Dissolved Solids:	4,000	ppm
Density:	8.330	lbs/gal

Note: The information above was provided by the cooling tower manufacturer for the same units located at a similar source.

2. Potential to Emit PM/PM10/PM2.5:

Assume all the dissolved solids become PM10 emissions and assume PM and PM2.5 emissions are equal to PM10 emissions.

PTE of PM/PM10/PM2.5 (lbs/hr) = 44,850 gal/min x 60 min/hr x 0.005% x 8.33 lbs/gal x 4,000 ppm x 1/1,000,000 ppm = **4.48 lbs/hr**

PTE of PM/PM10/PM2.5 (tons/yr) = 0.90 lbs/hr x 8760 hr/yr x 1 ton/2000 lbs = **19.64 tons/yr**

Appendix A: Emission Calculations
VOC Emissions
From Storage Tank Emissions

Company Name: Abengoa Bioenergy of Indiana, LLC
Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Operating Permit: T129-31150-00050
Reviewer: Kristen Willoughby

Tank ID	Tank Capacity (gal)	Description	Liquid	Throughput (MM gal/yr)	Total Working Losses (lbs/yr)	Total Standing Losses (lbs/yr)	Potential VOC Emissions (tons/yr)	HAP Emission Factor (%)
T-2110	250,000	Anhydrous Tank 1	Ethanol	47.5	301.89	198.52	0.25	0.0002%
T-2111	250,000	Anhydrous Tank 2	Ethanol	47.5	301.89	198.52	0.25	0.0002%
T-2101	39,500	Off-Spec Storage Tank	Ethanol	9.5	140.44	146.59	0.14	0.0002%
T-2102	1,015,164	Denatured Ethanol Stg. Tank (E85)	Ethanol & Denaturant	45.2	161.75	861.37	0.51	0.0002%
T-2103	1,015,164	Denatured Ethanol Stg. Tank (E85)	Ethanol & Denaturant	45.2	161.75	861.37	0.51	0.0002%
T-2105	1,015,164	Denatured Ethanol Stg. Tank (E85)	Ethanol & Denaturant	45.2	161.75	861.37	0.51	0.0002%
T-2104	128,800	Denaturant Storage Tank	Natural Gasoline	40.71	243.89	2469.25	1.36	0.0000%
							3.54	

Methodology
VOC emissions from the storage tanks were calculated by the Permittee using EPA TANKS software (version 4.09d) and have been verified.

Appendix A: Emission Calculations
VOC Emissions
Corn Oil Separation Process

Company Name: Abengoa Bioenergy of Indiana, LLC
Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Operating Permit: T129-31150-00050
Reviewer: Kristen Willoughby

1. Tank Emissions:

Tank ID	Tank Capacity (gal)	Description	Ptoential VOC Emissions (lbs/yr)	Potential VOC Emissions (tons/yr)	HAP Emission Factor (%)	Acetaldehyde Emissions (tpy)	Methanol Emissions (tpy)	Total HAP Emissions (tpy)
TP-6901	1,000	Emulsion Mix Flash Tank	12.32	0.01	0.0002%	1.232E-08	1.232E-08	2.464E-08
TP-6930	450	Emulsion Settling Tank	12.00	0.01	0.0002%	1.20E-08	1.20E-08	2.40E-08
TP-6931	400	Bio Oil Product Tank	11.66	0.01	0.0002%	1.166E-08	1.166E-08	2.332E-08
TF-8901	9,500	Bio Oil Storage Tank 1	12.73	0.01	0.0002%	1.273E-08	1.273E-08	2.546E-08
TF-8902	9,500	Bio Oil Storage Tank 2	12.73	0.01	0.0002%	1.273E-08	1.273E-08	2.546E-08
TF-8903	9,500	Bio Oil Storage Tank 3	12.73	0.01	0.0002%	1.273E-08	1.273E-08	2.546E-08
TF-8904	95,000	Bio Oil Storage Tank 4	12.73	0.01	0.0002%	1.273E-08	1.273E-08	2.546E-08
TS-6852	560	Aqueous Soluable Phas Receiver	12.18	0.01	0.0002%	1.218E-08	1.218E-08	2.436E-08
TS-6853	205	Emulsion Concentrate Receiver #1	11.95	0.01	0.0002%	1.195E-08	1.195E-08	2.39E-08
TS-6854	270	Emulsion Concentrate Receiver #2						
TS-6860	3,759	Centrifuge Feed Tank	13.7	0.01	0.0002%	1.37E-08	1.37E-08	2.74E-08
				0.06		**1.2473E-07**	**1.2473E-07**	**2.4946E-07**

Methodology
VOC emissions from the storage tanks were calculated by the Permittee using EPA TANKS software (version 4.09d) and have been verified.
Acetaldehyde and Methanol are both at 200ppm in the final product. It is conservatively assumed the same composition in all VOCs that are predominantly ethanol.

2. Fugitive VOC Emissions:

Equipment Component Source	Product	Component Count**	Emission Factor*** (lbs/comp-hr)	Subpart VV Control Effectiveness**** (%)	Fugitive VOC Emissions (tons/yr)
Valves	Light Liquid	20	0.008884629	84%	0.12
Pumps	Light Liquid	10	0.04387199	69%	0.60
Connectors	All	25	0.004034459	87%	0.06
Total					**0.78**

*This is the weighted average alchohol concentration for all processes and components at the source.
((Process Specifc Alcohol Conc.)*(Number of Components in Process)) / (Total Number of Components at Source)
** Component count for entire source estimated by the source.
*** Emission factors are from Protocol for Equipment leak Emission Estimates, EPA-453/R-95-017.
**** Control Effectiveness is from Protocol for Equipment leak Emission Estimates, EPA-453/R-95-017, Table 5-2.

HAP	HAP Fraction*	Fugitive HAP Emissions (tons/yr)
Acetaldehyde	2.00E-04	1.56E-04
Methanol	2.00E-04	1.56E-04
		3.11E-04

* The HAP fractions for Acetaldehyde and Methanol are assumed to be the same as for all other leaks at the source. The HAP fractions were derived from similar plant stack testing

Methodology
Fugitive VOC Emissions (tons/yr) = Component Count x Emission Factor (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs x (1-Control Effectiveness)

3. Loading Emissions

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:

$$L = 12.46 \times (SPM)/T$$

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)
Corn Oil	0.6	0.0085	96.09	509.88	0.01

Therefore, the emission factor for loading corn oil to the trucks

Potential to Emit VOC:

Max. Loading Rate for Truck Loadout: 0.40 kgal/hr (for truck loading)

PTE of VOC before Control (tons/yr) = 0.40 kgal/hr x 0.01 lbs/kgal x 8760 hr/yr x 1 ton/2000 lbs = **0.02 tons/yr**

Max. Loading Rate Rail Loadout: 0.40 kgal/hr (for railcar loading)

PTE of VOC before Control (tons/yr) = 0.40 kgal/hr x 0.01 lbs/kgal x 8760 hr/yr x 1 ton/2000 lbs = **0.02 tons/yr**

4. Total Corn Oil Seperation Process Emissions:

	Tanks	Fugitive	Loadout	Total
Potential VOC (tpy)	0.06	0.78	-	**0.84**
Potential Total HAPs (tpy)	2.49E-07	3.11E-04	-	**3.11E-04**
Acetaladehyde (tpy)	1.25E-07	1.56E-04	-	**1.56E-04**

Appendix A: Emission Calculations
VOC and HAP Emissions
From Equipment Leaks

Company Name: Abengoa Bioenergy of Indiana, LLC
Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Operating Permit: T129-31150-00050
Reviewer: Kristen Willoughby

1. Fugitive VOC Emissions: Alcohol Concentration (% wt)* 49.7%

Equipment Component Source	Product	Component Count**	Emission Factor*** (lbs/comp-hr)	Subpart VV Control Effectiveness**** (%)	Fugitive VOC Emissions (tons/yr)
Valves	Gas/Vapor	97	0.013134	87%	0.36
Valves	Light Liquid	113	0.008866	84%	0.35
Valves	Heavy Liquid	148	0.008866	84%	0.46
Pumps	Light Liquid	14	0.04378	69%	0.41
Pumps	Heavy Liquid	18	0.04378	69%	0.53
Pressure-Relief Valves	Gas/Vapor	25	0.2288	87%	1.62
Sampling Connections	All	24	0.033	84%	0.28
Connectors	All	1073	0.004026	65%	3.29
Total					**7.29**

*This is the weighted average alchohol concentration for all processes and components at the source.
((Process Specifc Alcohol Conc.)*(Number of Components in Process)) / (Total Number of Components at Source)
** Component count for entire source estimated by the source.
*** Emission factors are from Protocol for Equipment leak Emission Estimates, EPA-453/R-95-017.
**** Control Effectiveness is from Protocol for Equipment leak Emission Estimates, EPA-453/R-95-017, Table 5-2.

Methodology
Fugitive VOC Emissions (tons/yr) = Component Count x Emission Factor (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs x (1-Control Effectiveness) x Alcohol Concentration (% wt)

2. Fugitive HAP Emissions:

HAP	HAP Fraction*	Fugitive HAP Emissions (tons/yr)
Acetaldehyde	2.00E-04	1.46E-03
Methanol	2.00E-04	1.46E-03
Benzene	2.50E-03	1.82E-02
Carbon Disulfide	2.00E-05	1.46E-04
Cumene	1.00E-04	7.29E-04
Ethylbenzene	5.00E-05	3.65E-04
n-Hexane	5.00E-02	3.65E-01
Toluene	5.00E-03	3.65E-02
Xylenes	5.00E-04	3.65E-03
Total		**0.42**

* The HAP fractions for Acetaldehyde and Methanol ware derived from similar plant stack testing and the remaining HAP fractions are for gasoline vapors.

Methodology

Fugitive HAP Emissions (tons/yr) = Fugitive VOC Emissions (tons/yr) x HAP Fraction

Appendix A: Emission Calculations
Fugitive Emissions From Paved Roads

Company Name: Abengoa Bioenergy of Indiana, LLC
Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Operating Permit: T129-31150-00050
Reviewer: Kristen Willoughby

1. Emission Factors: AP-42

According to AP-42, Chapter 13.2.1 - Paved Roads (11/01), the PM, PM10, and PM2.5 emission factors for paved roads can be estimated from the following equation:

$$E = [(k \times (sL)^a) \times (w)^b] \times (1 - p/(4 \times 365))$$

where:

E =	emission factor (lb/vehicle mile traveled)	
sL =	road surface silt loading (g/m^2) =	1.1 *(g/m^2) (From AP-42, Table 13.2-1-3, Corn Wet Mills.)*
w =	mean vehicle weight (tons) =	27.75 tons
k =	empirical constant =	0.011 for PM, 0.0022 for PM10, and 0.00054 for PM2.5
a =	empirical constant =	0.91
b =	empirical constant =	1.02
p =	number of days per year with 0.01 inches precipitation	120

PM Emission Factor = $[(0.011 \times 1.1^{0.91}) \times 27.5^{1.02}] \times (1 - 120/1460)$ = **0.33** lbs/mile

PM10 Emission Factor = $[(0.0022 \times 1.1^{0.91}) \times 27.5^{1.02}] \times (1 - 120/1460)$ = **0.07** lbs/mile

PM2.5 Emission Factor = $[(0.00054 \times 1.1^{0.91}) \times 27.5^{1.02}] \times (1 - 120/1460)$ = **0.016** lbs/mile

2. Potential to Emit (PTE) of PM, PM10, PM2.5 Before Control from Paved Roads:

Vehicle Type	*Ave Weight of Vehicles (tons)	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)	PTE of PM2.5 before Control (tons/yr)
Denaturant Delivery	27.75	16,782	23.6%	6.56	2.7	0.55	0.13
Ethanol (denatured)	27.75	5,034	7.1%	1.97	0.82	0.16	0.04
Grain	27.75	39,393	55.5%	15.40	6.43	1.29	0.32
DDGS	27.75	8,863	12.48%	3.46	1.45	0.29	0.07
Corn Oil	27.75	934	1.32%	0.37	0.15	0.03	0.01
Total		**71,006**	**100%**	**27.8**	**11.6**	**2.29**	**0.57**

* This information is provided by the source.

Methodology

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

3. Potential to Emit (PTE) of PM, PM10, and PM2.5 after Control from Paved Roads:

The source will use periodic sweeping to control the fugitive dust emissions.
The control efficiency from sweeping is assumed to be 50%.

PTE of PM after Control =	11.6 tons/yr x (1-50%) =	**5.80 tons/yr**
PTE of PM10 after Control =	2.29 tons/yr x (1-50%) =	**1.14 tons/yr**
PTE of PM2.5 after Control =	0.57 tons/yr x (1-50%) =	**0.28 tons/yr**

Appendix A: Emission Calculations
Fugitive Emissions From Unpaved Roads

Company Name: Abengoa Bioenergy of Indiana, LLC
Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Operating Permit: T129-31150-00050
Reviewer: Kristen Willoughby

1. Emission Factors: AP-42

According to AP-42, Section 13.2.2 Unpaved Roads, November 2006, the PM/PM10 emission factors for unpaved roads can be estimated from the following equation:

lbs/VMT Equation: $E = k (s/12)^a (W/3)^b$

Where:						
Particle size multiplier	k	4.9	dimensionless (PM-30 or TSP)	1.5	dimensionless PM-10	0.15 dimensionless PM2.5
surface material silt content (%)	s	4.8	Table 13.2.2-1			
mean vehicle weight, 25 ton capacity	W	5.0	tons			
Equation constants	a	0.7	PM-30 or TSP Table 13.2.2-2	0.9	PM-10/PM2.5 Table 13.2.2-2	
	b	0.45	PM-30 or TSP Table 13.2.2-2	0.45	PM-10/PM2.5 Table 13.2.2-3	

PM Emission Factor = $(4.9) \times (4/12)^{0.7} \times (5/3)^{0.45}$ = **3.25** lbs/mile

PM10 Emission Factor = $(1.5) \times (4/12)^{0.9} \times (5/3)^{0.45}$ = **0.83** lbs/mile

PM2.5 Emission Factor = $(0.15) \times (4/12)^{0.9} \times (5/3)^{0.45}$ = **0.08** lbs/mile

2. Potential to Emit (PTE) of PM, PM10, and PM2.5 from unpaved Roads:

Emission Area	Vehicle Weight (tons)	Unpaved Total VMT	Total Vehicle Emissions (lb/yr)	Total Vehicle Emissions (tpy)
Maintenance Roads (TSP)	5.00	664	2,154	**1.08**
Maintenance Roads (PM10)	5.00	664	549	**0.27**
Maintenance Roads (PM2.5)	5.00	664	55	**0.03**

3. Information is provided by the source:

Maintenance road next to barge loadout	4800 feet	daily	1,752,000	feet
Maintenance road next to rail spur	4200 feet	daily	1,533,000	feet
Maintenance road around Elec. Substation	1200 feet	weekly	62,400	feet
Maintenance road to each well (2) by river	2000 feet	weekly	104,000	feet
Misc. maintenance roads at facility	1000 feet	weekly	52,000	feet
			3,503,400	total feet traveled per year unpaved
			663.52	total miles traveled per year unpaved

Methodology

Total Vehicle Emissions (tons/yr) = Unpaved Total VMT (miles/yr) x PM/PM10 Emission Factors x 1 ton/2000 lbs

Appendix A: Emission Calculations
PTE Summary

Company Name: Abengoa Bioenergy of Indiana, LLC
Address: 8999 West Franklin Road, Mt. Vernon, Indiana 47620
Part 70 Operating Permit: T129-31150-00050
Reviewer: Kristen Willoughby

Unlimited Potential to Emit (tons/yr)													
Emission Unit	**PM**	**PM10**	**PM2.5**	**SO_2**	**NOx**	**VOC**	**CO**	**CO2**	**N2O**	**CH4**	**CO2e**	**Total HAPs**	**Acetaldehyde**
Grain Handling	1,633.11	1,633.11	1,633.11	-	-	-	-	-	-	-	-	-	-
DDGS Handling	837.21	837.21	837.21	-	-	-	-	-	-	-	-	-	-
Fermentation & Distillation	-	-	-	-	-	4765.00	-	330,615	-	-	330,615	20.10	17.17
Boilers	3.02	12.06	12.06	15.87	80.94	8.73	80.94	190,453	3.49	3.65	191,612	3.00	-
Dryers/Swiss Combi Systems	1892	1892	1892	7.12	141.10	3591.60	166.44	79,046	1.45	1.52	79,527	570.64	306.60
Ethanol Loadout	-	-	-	-	-	6,863	-	-	-	-	-	433.51	-
Diesel Fire Pump	0.25	0.25	0.25	0.24	3.57	0.28	0.77	132	1.06E-03	5.32E-03	133	3.12E-03	6.17E-04
Diesel Emergency Generator	0.26	0.15	0.15	0.15	8.97	0.26	2.06	434	3.48E-03	2.37E-02	435	4.12E-03	6.59E-05
Cooling Tower	19.64	19.64	19.64	-	-	-	-	-	-	-	-	-	-
Storage Tanks**	-	-	-	-	-	3.54	-	-	-	-	-	8.71E-06	4.36E-06
Corn Oil Separation*	-	-	-	-	-	0.08	-	-	-	-	-	3.11E-04	3.11E-04
Wet Cake Storage***	-	-	-	-	-	3.42	-	-	-	-	-	0.16	0.05
Leaks*	-	-	-	-	-	See Note	-	-	-	-	-	0.42	1.46E-03
Total	**4,385.65**	**4,394.58**	**4,394.58**	**23.38**	**234.57**	**15,232.06**	**250.21**	**600,680**	**4.95**	**5.19**	**602,322**	**1,027.83**	**323.82**

Fugitive Emissions*													
Grain Receiving	90.00	29.50	5.00	-	-	-	-	-	-	-	-	-	-
DDGS Handling and Storage	72.31	24.26	4.37	-	-	-	-	-	-	-	-	-	-
Corn Oil Separation*	-	-	-	-	-	0.78	-	-	-	-	-	See Note	See Note
Leaks	-	-	-	-	-	7.29	-	-	-	-	-	See Note	See Note
Paved Roads	11.59	2.29	0.57	-	-	-	-	-	-	-	-	-	-
Unpaved Roads	1.08	0.27	0.03	-	-	-	-	-	-	-	-	-	-
Total	**175.0**	**56.3**	**10.0**	**-**	**-**	**8.1**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Potential to Emit after Control (tons/yr)													
Emission Unit	**PM**	**PM10**	**PM2.5**	**SO_2**	**NOx**	**VOC**	**CO**	**CO2**	**N2O**	**CH4**	**CO2e**	**Total HAPs**	**Acetaldehyde**
Grain Handling	16.33	16.33	16.33	-	-	-	-	-	-	-	-	-	-
DDGS Handling	8.37	8.37	8.37	-	-	-	-	-	-	-	-	-	-
Fermentation & Distillation	-	-	-	-	-	95.30	-	330,615	-	-	330,615	7.68	4.16
Boilers	3.02	12.06	12.06	15.87	80.94	8.73	80.94	190,453	3.49	3.65	191,612	3.00	-
Dryers/Swiss Combi Systems	94.61	94.61	94.61	7.12	141.10	71.83	166.44	79,046	1.45	1.52	79,527	12.63	6.13
Ethanol Loadout	-	-	-	-	-	19.99	-	-	-	-	-	1.26	-
Diesel Fire Pump	0.25	0.25	0.25	0.24	3.57	0.28	0.77	132.25	1.06E-03	5.32E-03	133	3.12E-03	6.17E-04
Diesel Emergency Generator	0.26	0.15	0.15	0.15	8.97	0.26	2.06	433.55	3.48E-03	2.37E-02	434	4.12E-03	6.59E-05
Cooling Tower	19.64	19.64	19.64	-	-	-	-	-	-	-	-	-	-
Corn Oil Separation*	-	-	-	-	-	0.08	-	-	-	-	-	3.11E-04	3.11E-04
Storage Tanks**	-	-	-	-	-	3.54	-	-	-	-	-	8.71E-06	4.36E-06
Wet Cake Storage***	-	-	-	-	-	3.42	-	-	-	-	-	0.16	0.05
Leaks*	-	-	-	-	-	See Note	-	-	-	-	-	0.42	1.46E-03
Total	**142.48**	**151.41**	**151.41**	**23.38**	**234.57**	**200.02**	**250.21**	**600,680**	**4.95**	**5.19**	**602,320**	**25.16**	**10.34**

Limited Potential to Emit (tons/yr)													
Emission Unit	**PM**	**PM10**	**PM2.5**	**SO_2**	**NOx**	**VOC**	**CO**	**CO2**	**N2O**	**CH4**	**CO2e**	**Total HAPs**	**Acetaldehyde**
Grain Handling	48.99	48.99	48.99	-	-	-	-	-	-	-	-	-	-
DDGS Handling	25.12	25.12	25.12	-	-	-	-	-	-	-	-	-	-
Fermentation & Distillation	-	-	-	-	-	95.30	-	330,615	-	-	330,615	7.68	4.16
Boilers	3.02	12.06	12.06	15.87	80.94	8.73	80.94	190,453	3.49	3.65	191,612	3.00	-
Dryers/Swiss Combi Systems	94.61	94.61	94.61	7.12	141.10	71.83	156.75	79,046	1.45	1.52	79,527	11.97	5.78
Ethanol Loadout	-	-	-	-	-	19.99	-	-	-	-	-	1.26	-
Diesel Fire Pump	0.25	0.25	0.25	0.24	3.57	0.28	0.77	132.25	1.06E-03	5.32E-03	133	3.12E-03	6.17E-04
Diesel Emergency Generator	0.26	0.15	0.15	0.15	8.97	0.26	2.06	433.55	3.48E-03	2.37E-02	434	4.12E-03	6.59E-05
Cooling Tower	19.64	19.64	19.64	-	-	-	-	-	-	-	-	-	-
Corn Oil Separation*	-	-	-	-	-	0.08	-	-	-	-	-	3.11E-04	3.11E-04
Storage Tanks**	-	-	-	-	-	3.54	-	-	-	-	-	8.71E-06	4.36E-06
Wet Cake Storage***	-	-	-	-	-	3.42	-	-	-	-	-	0.16	0.05
Leaks*	-	-	-	-	-	See Note	-	-	-	-	-	0.42	1.46E-03
Total	**191.88**	**200.82**	**200.82**	**23.38**	**234.57**	**200.02**	**240.52**	**600,680**	**4.95**	**5.19**	**602,320**	**24.50**	**9.98**

* Since the source is no longer 1 of the 28 listed source categories fugitive PM/PM10/PM2.5 and VOC emissions no longer count toward the determination of PSD, Emission Offset, and Part 70 Permit applicability. However, fugitive HAP emissions still count toward the determination of Part 70 Permit applicability.
** 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 is likely the worst case scenario. Therefore, the PTE of VOC of the wet cake storage is not included in the PTE for the entire source.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Timothy Wiemer
Abengoa Bioenergy of Indiana
8999 W. Franklin Rd
Mt. Vernon, IN 47620

DATE: October 29, 2012

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Title V
129-31150-00050

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Darrel Sanford (Plant Manager)
Marley Ayres (Pinnacle Engineering, Inc)
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Governor

Thomas W. Easterly
Commissioner

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Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

October 29, 2012

TO: Alexandrian Public Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Abengoa Bioenergy of Indiana, Inc
Permit Number: 129-31150-00050

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: October 29, 2012

RE: Abengoa Bioenergy of Indiana, Inc / 129-31150-00050

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

In order to conserve paper and reduce postage costs, IDEM's Office of Air Quality is now sending many permit decisions on CDs in Adobe PDF format. The enclosed CD contains information regarding the company named above.

This permit is also available on the IDEM website at:
http://www.in.gov/ai/appfiles/idem-caats/

If you would like to request a paper copy of the permit document, please contact IDEM's central file room at:

Indiana Government Center North, Room 1201
100 North Senate Avenue, MC 50-07
Indianapolis, IN 46204
Phone: 1-800-451-6027 (ext. 4-0965)
Fax (317) 232-8659

Please Note: *If you feel you have received this information in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV.*

Enclosures
CD Memo.dot 11/14/08

Mail Code 61-53

IDEM Staff	MIDENNEY 10/29/2012 Abengoa Bioenergy of Indiana 129-31150-00050 (final)			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
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1		Timothy Wiemer Abengoa Bioenergy of Indiana 8999 W Franklin Rd Mount Vernon IN 47620-9179 (Source CAATS) via confirm delivery									
2		Darrel Sanford Plant Mgr Abengoa Bioenergy of Indiana 8999 W Franklin Rd Mount Vernon IN 46720-9179 *(RO CAATS)*									
3		Evansville City Council and Mayors Office 1NW MLK Blvd, Rm 302 Evansville IN 47708 *(Local Official)*									
4		Mr. Wendell Hibdon Plumbers & Steam Fitters Union, Local 136 2300 St. Joe Industrial Park Dr Evansville IN 47720 *(Affected Party)*									
5		Posey County Commissioners County Courthouse, 126 E. 3rd Street Mount Vernon IN 47620 *(Local Official)*									
6		Posey County Health Department 126 E. 3rd St, Coliseum Bldg Mount Vernon IN 47620-1811 *(Health Department)*									
7		Mount Vernon City Council and Mayors Office 520 Main Street Mount Vernon IN 47620 *(Local Official)*									
8		Dr. Jeff Seyler Univ. of So Ind., 8600 Univ. Blvd. Evansville IN 47712 *(Affected Party)*									
9		Mr. Don Mottley Save Our Rivers 6222 Yankeetown Hwy Boonville IN 47601 *(Affected Party)*									
10		Alexandrian Public Library 115 West 5th Mt. Vernon IN 47620 *(Library)*									
11		Mr. Mark Wilson Evansville Courier & Press P.O. Box 268 Evansville IN 47702-0268 *(Affected Party)*									
12		Mrs. Connie Parkinson 510 Western Hills Dr. Mt. Vernon IN 47620 *(Affected Party)*									
13		Robert Hess c/o Mellon Corporation 830 Post Road East, Suite 105 Westport CT 06880 (Affected Party)									
14		Juanita Burton 7911 W. Franklin Road Evansville IN 47712 *(Affected Party)*									
15		Mr. John Blair 800 Adams Ave Evansville IN 47713 *(Affected Party)*									

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Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Evansville EPA 100 E. Walnut St. Suite 100, Newsome Center Evansville IN 47713 (Local Official)									
2		Mr. Colin OBrien Natural Resources Defense Council 1152 15th St NW, Suite 300 Washington DC 20005 *(Affected Party)*									
3		Marley Ayres Pinnacle Engineering, Inc. 7389 Airport View Drive, SW Suite 400 Rochester MN 55902 *(Consultant)*									
4		David Boggs 216 Western Hills Dr Mt Vernon IN 47620 *(Affected Party)*									
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Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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