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: July 8, 2008

RE: The Andersons Clymers Ethanol, LLC / 017-26224-00023

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 according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot12/03/07

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July 8, 2008

Ms. Stacy Schmidt
The Andersons Clymers Ethanol, LLC
PO Box 119
Maumee, Ohio 43537

Re: 017-26224-00023
First Significant Revision to
F017-21536-00023

Dear Ms. Schmidt

The Andersons Clymers Ethanol, LLC was issued a Federally Enforceable State Operating Permit (FESOP) No. F017-21536-00023 on February 15, 2006 for a stationary dry mill ethanol plant located at County Road 300 S and 350 W, Logansport, IN 46947. On March 6, 2008, the Office of Air Quality (OAQ) received an application from the source requesting the following operational schedule and material throughput changes:

Ethanol Plant

1. Increase in the ethanol plant capacity from 110 million gallons per year (MMGPY) to 137.5 MMGPY
2. Decrease in the fire pump usage from 500 hours per year (hr/yr) to 300 hr/yr.
3. Increase the DDGS production from 356,880 tons per year (TpY) to 417,411 TpY.
4. Increase the Biomethanator operating schedule from 500 hr/yr to 1,000 hr/yr

Grain Elevator

5. Increase the grain receiving by straight truck from 2,000,000 bushels per year (bu/yr) to 3,000,000 bu/yr.
6. Increase the grain receiving by hopper from 37,285,716 bu/yr to 43,500,000 bu/yr.
7. Increase the grain receiving limit for the uncontrolled pit from 1,000,000 bu/yr to 7,000,000 bu/yr
8. Increase the gas usage limit for the grain dryer from 42,900,000 cubic feet per year (ft^3/yr) to 45,000,000 ft^3/yr

The application requested the following reconfiguration of emission control systems:

1. Change the identification of the baghouse associated with the grain transfer to the day bin from “One Baghouse S-20” to “Baghouse S-20A”.
2. Identify the previously unidentified baghouse for the day bin and transfer to the hammermills as “One Baghouse S-20B”.
3. Change the identification of the baghouse(s) associated with the hammermills from “One Baghouse S-30” to “Four Dedicated Baghouses (S-30 A through S-30D)”.
4. Change the identification of the baghouse associated with the cooling drum from “One Baghouse S-70” to “two baghouses discharging through a common exhaust point, S-70”.
5. Delete the baghouse for the scalper, identified as “One Baghouse S-30,” from the Ethanol Plant Inventory. (The Grain Elevator has a scalper or cleaner)

The attached Technical Support Document (TSD) provides additional explanation of the changes to the source/permit. Pursuant to the provisions of 326 IAC 2-8-11.1, these changes to the permit are required to be reviewed in accordance with the Significant Permit Revision (SPR) procedures of 326 IAC 2-8-11.1(f). Pursuant to the provisions of 326 IAC 2-8-11.1, a significant permit revision to this permit is hereby

approved as described in the attached Technical Support Document (TSD).

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Jason R. Krawczyk, of my staff, at 317-234-5175 or 1-800-451-6027, and ask for extension 4-5175.

Sincerely,

Origin signed by

Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments: Technical Support Document and revised permit

IC/JRK

cc: File - Cass County
Cass County Health Department
U.S. EPA, Region V
Air Compliance Section
Compliance Data Section
Technical Support and Modeling
Permits Administrative and Development
Billing, Licensing and Training Section

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FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

The Andersons Clymers Ethanol, LLC
County Roads 300S and 350W
Logansport, Indiana 46947

(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 provision of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; and denial of a permit renewal application. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: 017-21536-00023	
Issued by: Original Signed By: Paul Dubenetzky, Assistant Commissioner Office of Air Quality	Issuance Date: February 15, 2006 Expiration Date: February 15, 2011

First Significant Permit Revision No.: F017-26224-00023	
Issued by/ Original Signed by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date:july 8, 2008 Expiration Date: February 15, 2011

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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 A.1, A.3, and A.4 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a grain terminal and an ethanol production plant.

Source Address:	County Road 300 S and 350 W, Logansport, IN 46947
Mailing Address:	P.O. B ox 119, Maumee, Ohio 43537
General Source Phone:	(419) 891-2957
SIC Code:	2869, 5153
Source Location Status:	Cass Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Source Definition [326 IAC 2-8-1] [326 IAC 2-7-1(22)]

This stationary source consists of the following plants:

(a) Grain Terminal is located at County Road 300 S and 350 W, Logansport, IN 46947; and

(b) Ethanol Plant will also be located at County Road 300 S and 350 W, Logansport, IN 46947.

Since the two (2) plants are located at the same address, the grain terminal supports the ethanol plant, and are under common control of the same entity, they will be considered one (1) source.

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

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

Ethanol Production Plant:

(a) Ethanol Production Plant with a maximum production rate of 137,500,000 gallons of ethanol per year:

(1) One (1) day bin with a maximum throughput of 7,500 bushels per hour.

(2) Four (4) hammermills each with a maximum throughput of 100 tons per hour controlled by baghouses S-30A through S-30D.

(3) One (1) cook water tank with a capacity of 374,000 gallons.

(4) One (1) slurry mixer receiver (blend) tank with a capacity of 470 gallons. The emissions from this tank will be exhausted indirectly to the two Recuperative Thermal Oxidizers (RTOs) (C-10 and C-11) through the slurry tanks.

(5) Two (2) slurry tanks each with a capacity of 25,000 gallons. The emissions from these tanks will be exhausted to the two RTOs (C-10 and C-11).

(6) Two (2) cook tubes each with a capacity of 5,000 gallons.

(7) One flash tank with a capacity of 4,500 gallons.

(8) One syrup tank with a capacity of 180,000 gallons.

(9) One fermentation process, with a maximum throughput of 13,000 gallons per hour, controlled by CO_2 scrubber S-40, which includes:

(A) Seven (7) fermenters, each with a capacity of 807,000 gallons.
(B) Two (2) liquefaction tanks each with a capacity of 128,400 gallons.
(C) Two (2) yeast tanks each with a capacity of 20,000 gallons. The emissions from these tanks will be exhausted to the two RTOs (C-10 and C-11).

(10) One distillation and evaporation process controlled by the two RTOs (C-10 and C-11) with a maximum throughput of 1,375,000 tons per year consisting of the following:

(A) One (1) beerwell with a capacity of 1,080,000 gallons.
(B) One beer column.
(C) One side stripper.
(D) Six (6) molecular sieve condensers.
(E) Six (6) centrifuges.
(F) Two (2) centrate tanks with a capacity of 1,690 gallons each.
(G) Eight (8) evaporators.
(H) One (1) thin stillage tank with a capacity of 374,000 gallons.
(I) One (1) whole stillage tank with a capacity of 180,000 gallons.

(11) One (1) Dried Distillers Grain and Solubles (DDGS) drying process with a maximum throughput of 47.64 tons per hour, controlled by the two RTOs (C-10 and C-11). This process consists of the following:

(A) Four (4) DDGS dryers, identified as Dryers A, B, C, and D, each dryer has a heat input capacity of 45 MMBtu/hr or a total heat input capacity of 180 MMBtu/hr, with a total drying rate of 417,411 tons of DDGS per year.
(B) One (1) DDGS cooling drum with a maximum throughput of 417,411 tons of DDGS per year, controlled by two baghouses discharging though a common exhaust point, identified as S-70.
(C) One (1) four cell cooling tower with a circulation rate of 3,000,000 gallons per hour.
(D) One DDGS truck/rail loadout with a maximum capacity of 500 tons per hour, controlled by a baghouse, identified as S-90.

(12) Ethanol loading racks with a total maximum throughput of 137,500,000 gallons per year of ethanol, consisting of the following:

(A) One (1) ethanol truck loading rack, utilizing submerged loading only. The truck loading process is controlled by an enclosed flare with a heat input capacity of 12.4 million British thermal units per hour (MMBtu/hr).

(B) One (1) ethanol railcar loading rack, utilizing submerged loading only. The railcar loading process is controlled by an enclosed flare with a heat input capacity of 12.4 MMBtu/hr.

(13) Two (2) Recuperative Thermal Oxidizers (RTOs)/heat recovery steam generators, identified as C-10 and C-11, using natural gas and process waste gases, each with a maximum heat input capacity of 122 MMBtu/hr.

(14) One (1) 300 horsepower (Hp) diesel-fired emergency pump, identified as EP-110.

(15) One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-2 that will store 190 proof ethanol with a capacity of 188,000 gallons.

(16) One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-3 that will store 200 proof ethanol with a capacity of 188,000 gallons.

(17) One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-4 that will store natural gasoline with a capacity of 235,000 gallons.

(18) One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-5 that will store denatured ethanol with a capacity of 2,200,000 gallons.

(19) One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-6 that will store denatured ethanol with a capacity of 740,000 gallons.

Grain Terminal:

(b) Grain Terminal with a maximum capacity of 1,498,000 tons of grains per year:

(1) One (1) truck dump hopper, constructed in 1974, enclosed on 2 sides with particulate emissions controlled by a baghouse, identified as # 1.

(2) One (1) rail/truck dump hopper, constructed in 1974, enclosed on 2 sides with particulate emissions controlled by a baghouse, identified as # 1.

(3) One (1) rail car/truck loading site, constructed in 1974, with no emission controls.

(4) One (1) Berico natural gas-fired dryer, constructed in 1974, with a maximum throughput capacity of 3,000 bushel per hour and a maximum heat input capacity of 16.5 million British thermal units (MMBtu) per hour with screen house enclosure.

(5) One (1) grain cleaner, constructed in 1974, rated at 15,000 bushels per hour with particulate emissions controlled by a baghouse, identified as # 2.

(6) Four million (4,000,000) bushel grain storage capacity in several steel tanks with no emission controls.

(7) Four hundred thousand (400,000) bushel grain storage capacity in concrete silos with particulate emissions controlled by a baghouse, identified as # 2.

(8) Two (2) grain legs, constructed in 1974, with a maximum capacity of 7,500 bushel per hour, with particulate emissions controlled by a baghouse, identified as # 2.

(9) One (1) hopper bottom truck grain receiving process, constructed in 2002, consisting of one (1) enclosed drag conveyor with a maximum design throughput of 7,000,000 bushels of corn per year, with particulate emissions controlled by one (1) conveyor enclosure.

A.4 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

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

(a) One (1) vertical fixed roof storage tank, identified as Tank-1 that will store corrosion inhibitor with a capacity of 2,300 gallons.

(b) One (1) package anaerobic biological water treatment system, identified as methanator. The gas produced by this system will be used to supplement the fuel used in two of the four dryers (Dryers A and C). When these dryers are not in operation, the gas is routed to the methanator flare system (S-60).

(c) One (1) pressurized storage tank and associated piping for anhydrous ammonia.

(d) Natural draft cooling towers not regulated under a NESHAP.

(e) Various process tanks, including thin stillage, syrup, cook water, liquefaction, and whole stillage.

A.5 FESOP Applicability [326 IAC 2-8-2]

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

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SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

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

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

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

B.3 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5]

This permit 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.4 Enforceability [326 IAC 2-8-6]

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

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

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

B.7 Severability [326 IAC 2-8-4(4)]

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

B.8 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

B.9 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized

individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

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

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

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

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

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

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of the 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 in letter form no later than July 1 of each year to:

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

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

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

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

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

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

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

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

(b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

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

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

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

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

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

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,
Telephone No.: 317-233-0178 (ask for Compliance Section)
Facsimile No.: 317-233-6865

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

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

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

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

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

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

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

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ, may

require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

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

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

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

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

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

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

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

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

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

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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

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

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and

reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

(1) That this permit contains a material mistake.

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

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

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

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

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

(2) If IDEM, OAQ upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this

existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

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

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

Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

(d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

B.19 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

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

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

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

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

(4) The Permittee notifies the:

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

and

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

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

(b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

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

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

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

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-17-3-2] [IC13-30-3-1]

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

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

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

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

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

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

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

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

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

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

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

(b) Failure to pay may result in administrative enforcement action, or revocation of this permit.

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

B.24 Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9

(a) The requirements to obtain a permit revision under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.

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

B.25 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to

whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Overall Source Limit [326 IAC 2-8]

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

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)

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

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

(4) The potential to emit PM from the entire source shall be limited to less than two-hundred fifty (250) tons per twelve (12) consecutive month period.

(b) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall apply for a Significant Permit Revision, pursuant to 326 IAC 2-8-11.1(g)(2) when adding insignificant activities not already listed in this permit in order to adjust the emissions cap limitations.

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

C.3 Opacity [326 IAC 5-1]

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

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

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A,

Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

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

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

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

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

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

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

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.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 starts date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality

100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

(g) Indiana 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.

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

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

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

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

Compliance Requirements [326 IAC 2-1.1-11]

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

C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

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

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

in writing, prior to the compliance schedule (startup of operation of the ethanol plant) with full justification of the reasons for inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

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

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

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

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

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

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records;

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of

the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

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

The response action documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.17 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

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

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

C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance 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) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) The first report shall cover the period commencing on the date of initial startup of the ethanol plant and ended on the last day of the reporting period. All subsequent reporting periods shall be 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.

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

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

(a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156

(b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

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SECTION D.1 FACILITY OPERATION CONDITIONS

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

Ethanol Production Plant:

(a) Ethanol Production Plant with a maximum production rate of 137,500,000 gallons of ethanol per year:

(1) One (1) day bin with a maximum throughput of 7,500 bushels per hour, with grain transfer to the day bin controlled by baghouse S-20A.

(2) Four (4) hammermills each with a maximum throughput of 100 tons per hour controlled by baghouses S-30A through S-30D. Grain transfer from the day bin to the hammermills is controlled by Baghouse S-20B.

(3) One (1) cook water tank with a capacity of 374,000 gallons.

(4) One (1) slurry mixer receiver (blend) tank with a capacity of 470 gallons. The emissions from this tank will be exhausted indirectly to the two Recuperative Thermal Oxidizers (RTOs) (C-10 and C-11) through the slurry tanks.

(5) Two (2) slurry tanks each with a capacity of 25,000 gallons. The emissions from these tanks will be exhausted to the two RTOs (C-10 and C-11).

(6) Two (2) cook tubes each with a capacity of 5,000 gallons.

(7) One flash tank with a capacity of 4,500 gallons.

(8) One syrup tank with a capacity of 180,000 gallons.

(9) One fermentation process, with a maximum throughput of 13,000 gallons per hour, controlled by CO_2 scrubber S-40, which includes:

(A) Seven (7) fermenters, each with a capacity of 807,000 gallons.
(B) Two (2) liquefaction tanks each with a capacity of 128,400 gallons.
(C) Two (2) yeast tanks each with a capacity of 20,000 gallons. The emissions from these tanks will be exhausted to the two RTOs (C-10 and C-11).

(10) One distillation and evaporation process controlled by the two RTOs (C-10 and C-11) with a maximum throughput of 1,375,000 tons per year consisting of the following:

(A) One (1) beerwell with a capacity of 1,080,000 gallons.
(B) One beer column.
(C) One side stripper.
(D) Six (6) molecular sieve condensers.
(E) Six (6) centrifuges.
(F) Two (2) centrate tanks with a capacity of 1,690 gallons each.
(G) Eight (8) evaporators.
(H) One (1) thin stillage tank with a capacity of 374,000 gallons.
(I) One (1) whole stillage tank with a capacity of 180,000 gallons.

(11) One (1) Dried Distillers Grain and Solubles (DDGS) drying process with a maximum throughput of 47.65 tons per hour, controlled by the two RTOs (C-10 and C-11). This process consists of the following:

(A) Four (4) DDGS dryers, identified as Dryers A, B, C, and D, each dryer has a heat input capacity of 45 MMBtu/hr or a total heat input capacity of 180 MMBtu/hr, with a total drying rate of 417,411 tons of DDGS per year.

(B) One (1) DDGS cooling drum with a maximum throughput of 417,411 tons of DDGS per year, controlled by two baghouses discharging through a common exhaust point, identified as S-70.

(C) One (1) four cell cooling tower with a circulation rate of 3,000,000 gallons per hour.

(D) One DDGS truck/rail loadout with a maximum capacity of 500 tons per hour, controlled by a baghouse, identified as S-90.

(12) Ethanol loading racks with a total maximum throughput of 137,500,000 gallons per year of ethanol, consisting of the following:

(A) One (1) ethanol truck loading rack, utilizing submerged loading only. The truck loading process is controlled by an enclosed flare with a heat input capacity of 12.4 million British thermal units per hour (MMBtu/hr).

(B) One (1) ethanol railcar loading rack, utilizing submerged loading only. The railcar loading process is controlled by an enclosed flare with a heat input capacity of 12.4 MMBtu/hr.

(13) Two (2) Recuperative Thermal Oxidizers (RTOs)/heat recovery steam generators, identified as C-10 and C-11, using natural gas and process waste gases, each with a maximum heat input capacity of 122 MMBtu/hr.

(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 thereunder, 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.

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

D.1.4 PSD Minor Limits and FESOP Limits [326 IAC 2-2] [326 IAC 2-8]

(a) The PM emissions from the following emission units shall not exceed the following emission limits:

Emission Unit/Facility	Control	PM Emission Limit (lbs/hr)
Hammermills, and Grain Transfer to Ethanol Day Bin	Baghouses S-30A – S30D (Hammermills) S-20A (Grain Transfer to Day Bin) S-20B (Day Bin and Transfer to Hammermills)	2.16
DDGS Storage/Loadout	Baghouse S-90	1.10
DDGS Cooling Drum	Baghouse S-70	1.46
DDGS Dryer	RTOs C-10&C-11	6.67

Compliance with these PM limits, in combination with the PM emission limits in Condition D.2.3, limits the PM emissions from the entire source to less than 100 tons per year, renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) not applicable.

(b) The PM10 emissions from the following emission units shall not exceed the following emission limits:

Emission Unit/Facility	Control	PM10 Emission Limit (lbs/hr)
Hammermills, and Grain Transfer to Ethanol Day Bin	Baghouses S-30A – S30D (Hammermills) S-20A (Grain Transfer to Day Bin) S-20B (Day Bin and Transfer to Hammermills)	1.22
DDGS Storage/Loadout	Baghouse S-90	0.84
DDGS Cooling Drum	Baghouse S-70	1.46
DDGS Dryer	RTOs C-10&C-11	6.67

Compliance with these PM10 limits, in combination with the PM10 emission limits in Condition D.2.3, limits the PM10 emissions from the entire source to less than 100 tons per year, renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not applicable.

(c) The PM/PM10 emissions from the cooling tower shall not exceed 3.13 pounds per hour, and 13.70 tons per year. Compliance with this limit shall render the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not applicable.

(d) The NOx emissions from the following emission units shall be limited as follows:

(1) The NOx emissions from the two Recuperative Thermal Oxidizers (C-10 & C-11) shall not exceed 51 pounds per million cubic feet (lb/MMCF) when using natural gas, and the total natural gas fuel usage shall be limited to 2,137.4 million cubic feet per twelve consecutive month period with compliance determined at the end of each month.

(2) The NOx emissions from the four DDGS Dryers shall not exceed 51 pounds per million cubic feet (lb/MMCF) when using natural gas, and the total natural gas fuel usage shall be limited to 1,550.5 million cubic feet per twelve consecutive month period with compliance determined at the end of each month.

When using biogas as fuel for the DDGS Dyers every 1.17 cubic feet is equivalent to 1 cubic foot of natural gas.

(3) The RTOs (C-10 & C-11) shall only combust natural gas as fuel, and the DDGS dryers shall only combust natural gas and biogas as fuel.

(4) The NOx emissions from the RTOs (C-10 & C-11) shall be limited to 21.62 pounds per hour.

Compliance with these limits in combination with the NOx emission limits in Condition D.3.1, limits the NOx emissions from the entire source to less than 100 tons per year, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not applicable.

(e) The VOC emissions from the following emission units shall be limited as follows:

(1) The VOC emissions from the DDGS Cooling Drum shall be limited to 3.53 pounds per hour.

(2) The VOC emissions from the fermentation scrubber shall be limited to 9.42 pounds per hour.

(3) The VOC emissions from the loading racks shall be limited as follows:

(i) The combined VOC emissions from the truck loading rack and the railcar loading rack shall not exceed 4.54 lbs/hr.

(ii) The truck loading rack and the railcar loading rack shall be limited to a combined throughput of 137,500,000 gallons of ethanol per twelve consecutive month period with compliance determined at the end of each month.

(iii) The truck loading rack and the railcar loading rack shall be limited to 3000 operating hours per twelve consecutive month period with compliance determined at the end of each month.

(iv) The railcar loading rack and the truck loading rack shall utilize only a submerged fill loading system.

(4) The VOC emissions from the two Recuperative Thermal Oxidizers (C-10 & C-11), which controls emissions from distillation, evaporation, yeast tanks, and the DDGS Dryers shall not exceed 4.76 pounds per hour.

Compliance with these limits shall limit the VOC emissions from the entire source to less than 100 tons per year, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not applicable.

(f) The combined CO emissions from the two Recuperative Thermal Oxidizers (C-10 & C-11) and the four DDGS Dryers shall not exceed 20.49 pounds per hour. Compliance with this limit in combination with the CO emission limit in Condition D.2.3 shall limit the CO emissions from the entire source to less than 100 tons per year, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not applicable.

(g) The SO2 emissions from the four DDGS dryers shall not exceed 0.45 pound per ton of DDGS dried, and the throughput shall be limited to a total of 417,411 tons of DDGS dried per twelve consecutive month period with compliance determined at the end of each month. Compliance with this limit shall limit the SO_2 emissions from the entire source to less than 100 tons per year, which renders the requirements of 326 IAC 2-2, PSD and 326 IAC 2-7, Part 70 not applicable.

(h) The following conditions shall apply to the biomethanator and the enclosed flare:

(1) The operation of the biomethanator flare shall be limited to 1000 operating hours per twelve (12) consecutive month period with compliance determined at the end of each month.

(2) The biomethanator flare and the enclosed flare shall be designed as a smokeless flares.

(3) Both flares shall have a soot concentration value of 0 mg per liter.

Compliance with this condition shall render the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not applicable.

(i) Pursuant to 326 IAC 2-8-4 (FESOP), and to render the requirements of 326 IAC 2-4.1-(New Source Toxics Control) not applicable, the HAP emissions from the following emission units shall be limited as follows:

(1) DDGS drying controlled by the RTOs (C-10 and C-11) shall not exceed 0.80 pounds Acetaldehyde per hour.

(2) Fermentation process controlled by the scrubber (S-40) shall not exceed 1.05 pounds Acetaldehyde per hour.

Compliance with these limits in combination with the single HAP and total HAPs emission limits for other units, limits the single HAP emissions and total HAPs emissions from the entire source to less than ten (10) tons per year and twenty five (25) tons per year, respectively. Therefore, the requirements of 326 IAC 2-7 (Part 70 Program) are not applicable.

D.1.5 VOC Emissions (Fuel Grade Ethanol at Dry Mills) [326 IAC 8-5-6]

Pursuant to 326 IAC 8-5-6, the Permittee shall comply with the following:

(a) Fermentation Process

(1) The VOC emissions from the fermentation process shall be controlled by wet scrubber S-40.

(2) The overall VOC control efficiency, which includes capture and absorption efficiencies, for the wet scrubber S-40 shall be at least 98%, or the VOC outlet concentration shall not exceed 20 ppmv.

(b) Dried Distillers Grain and Solubles (DDGS) Dryers

(1) The VOC emissions from the DDGS Dryers shall be controlled by the two (2) Recuperative Thermal Oxidizers (C-10 & C-11).

(2) The overall control efficiency, which includes capture and destruction efficiencies, for each of the two Recuperative Thermal Oxidizers (C-10 & C-11) shall be at least 98%, or the VOC outlet concentration shall not exceed 10 ppmv.

(c) Ethanol Loading Rack

(1) The VOC emissions from the ethanol loadout shall be collected and controlled by a flare when loading denatured ethanol.

(2) The overall efficiency for the enclosed flare (including the capture efficiency and destruction efficiency) shall be at least 98%.

(d) Distillation and Evaporation

(1) The VOC emissions from the distillation and evaporation process shall be controlled by the two RTOs (C-10 and C-11).

(2) The overall control efficiency, which includes capture and destruction efficiencies, for each of the two Recuperative Thermal Oxidizers (C-10 & C-11) shall be at least 98%, or the VOC outlet concentration shall not exceed 10 ppmv.

D.1.6 Particulate Emission Limitations [326 IAC 6-3-2(e)]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from each of the following processes shall not exceed the pound per hour limits as follows:

Process /Facility	Process Weight Rate (tons/hr)	Particulate Emissions (lbs/hr)
Hammermills and Transfer to Ethanol Day Bins	156.96	55.92
DDGS Cooling Drum	47.65	44.13
DDGS Storage/Loadout	47.65	44.13
DDGS Drying	47.65	44.13

The pound per hour limitations shall be calculated using the following equation:

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 is pounds per hour and
P = process weight rate in tons per hour

D.1.7 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the recuperative thermal oxidizers/heat recovery steam generators (C-10 and C-11) except when otherwise specified in 40 CFR Part 60, Subpart Db.

D.1.8 NOx Emissions [326 IAC 12-1][40 CFR 60, Subpart Db]

(a) Pursuant to 40 CFR 60.44b, the NOx emissions from each recuperative thermal oxidizer/heat recovery steam generator shall not exceed 0.1 lbs/MMBtu.

(b) Pursuant to 40 CFR 60.48b, the Permittee shall comply with one of the following monitoring conditions for the recuperative thermal oxidizers/heat recovery steam generators (C-10 and C-11):

(1) Pursuant to 40 CFR 60.48b(b), the Permittee shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere; or

(2) Pursuant to 40 CFR 60.48b(g)(2), the Permittee shall monitor the operating conditions for the recuperative thermal oxidizers/heat recovery steam generators

(C-10 and C-11) and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to 40 CFR 60.49b(c).

D.1.8 Particulate Emissions [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emissions for Source of Indirect Heating), the total particulate emissions from the two RTOs/heat recovery steam generating Units (C-10 and C-11) shall not exceed 0.26 pounds per million British thermal units (lb/MMBtu) heat input.

D.1.9 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.1.10 Particulate Matter and Particulate Matter Less Than Ten Microns (PM10) Control

In order to comply with Conditions D.1.4 (a) and (b), and D.1.6 the baghouses shall be in operation at all times the Hammermills, DDGS cooling drum, DDGS storage/loadout, distillation, evaporation, and DDGS dryers are in operation.

D.1.11 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAPs) Control

In order to comply with D.1.4(d) and (g) and D.1.5, the RTOs , scrubber, and flare shall be in operation at all times the distillation, evaporation, yeast tanks, DDGS dryers, Fermentation, and ethanol loading rack are in operation.

D.1.12 Testing Requirements [326 IAC 2-2] [326 IAC 2-8-5(a)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Conditions D.1.4(a)(b)(d)(e)(f)(g)(h)(i), D.1.5, and D.1.6, the Permittee shall perform PM, PM10, VOC, CO, NOx, SO_2, and Acetaldehyde stack tests. PM/PM10 testing shall include emission rates. VOC testing shall include emission rates, and overall control efficiency (capture and destruction/absorption efficiencies) of the RTOs/heat recovery steam generators, scrubber, and enclosed flare. These tests shall be conducted within 60 days after achieving the maximum capacity, but not later than 180 days after initial startup, utilizing methods as approved by the Commissioner. PM-10 includes filterable and condensible PM-10. The PM, PM10, VOC, CO, NOx, SO_2, and Acetaldehyde 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 Section C - Performance Testing.

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

D.1.13 Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 12] [40 CFR 60, Subpart Db] [326 IAC 2-7-6(1),(6)]

(a) In order to demonstrate compliance with Condition D.1.8, the Permittee shall install, calibrate, maintain, and operate a continuous monitoring system for measuring NOx emissions discharged to the atmosphere. The continuous monitoring system shall meet the performance specifications of 326 IAC 3-5-2, and 40 CFR 60.48(b), and 40 CFR 60.13(h). 326 IAC 3-5 is not federally enforceable.

(b) The continuous monitors shall be operated according to Section C - Maintenance of Continuous Emission Monitoring Equipment. In the event that the nitrogen oxide continuous emissions monitor fails, the Permittee shall monitor the oxygen content and temperature once per hour. If the oxygen content or temperature is outside the range established in the latest compliance stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.1.14 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust from stacks S-30A through S-30D, S-20A, S-20B, S-70, and S-90 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.1.15 Recuperative Thermal Oxidizers 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 the limits in conditions D.1.4 and D.1.5 as approved by IDEM.

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

D.1.16 Recuperative Thermal Oxidizer Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the RTOs (C10 and C11) for measuring operating temperature. For the purpose of this condition, continuous means no less than once per minute. The output of this system shall be recorded as a 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 oxidizer 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 the limits in Conditions D.1 4 and D.1.5, as approved by IDEM.

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

D.1.17 Baghouses Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with the hammermilling and scalping, DDGS cooling drum, and DDGS loadout, at least once per day when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.1.18 Particulate Control

(a) Except as otherwise provided by statute, rule, or this permit, the baghouses for PM control shall be in operation and control emissions at all times the associated emission units are in operation.

(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.1.19 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 emissions unit. 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.

D.1.20 Wet Scrubber Parametric Monitoring

The Permittee shall monitor and record the pressure drop and flow rate of the scrubber, S-40 at least once per day when the associated fermentation process is in operation. When for any one reading, the pressure drop across the scrubber is outside the normal range of 4.0 and 8.0 inches of water, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. When for any one reading, the water flow rate of the scrubber is less than the minimum of 35 gallons per minute (gpm), or a minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mention range or a flow rate that is below the above mentioned minimum is not a deviation from this permit. Failure to take response

steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.1.21 Scrubber Operation

Except as otherwise provided by statute, rule or this permit, the scrubber shall be operated as needed to maintain compliance with all VOC emission limits.

D.1.22 Flare Pilot Flame

The Permittee shall monitor the presence of a flare pilot flame using a thermocouple or any other equivalent device to detect the presence of a flame when the ethanol loading rack is in operation and is loading ethanol to trucks and railcars.

Record Keeping and Reporting Requirements

D.1.23 Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 12] [40 CFR 60, Subpart Db]

(a) Pursuant to 326 IAC 2-8-4(3), the Permittee shall record and maintain records of the following information:

(1) To document compliance with Condition D.1.14, the Permittee shall maintain records of daily visible emission notations of the stacks S-30A through S-30D, S-20A, S-20B, S-70, and S-90. 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 date).

(2) To document compliance with Condition D.1.16, the Permittee shall maintain continuous temperature records for the Recuperative Thermal Oxidizers (C-10 and C-11) and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(3) To document compliance with Condition D.1.15, the Permittee shall maintain daily records of the duct pressure or fan amperage for the RTOs (C-10 and C-11). The Permittee shall include in its daily record when a duct pressure or fan amperage reading is not taken and the reason for the lack of duct pressure or fan amperage reading (e.g. the process did not operate that date).

(4) To document compliance with Condition D.1.17, the Permittee shall maintain records of the pressure drop across the baghouses used in conjunction with the hammermills, scalpers, DDGS cooling drum, and DDGS loadout. The Permittee shall include in its daily record when a pressure drop notation is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that date).

(b) Pursuant to 40 CFR 60.49b(d), the Permittee shall record and maintain records of the amounts of each fuel combusted by the recuperative thermal oxidizers/heat recovery steam generators (C-10 and C-11) during each day and calculate the annual capacity factor individually for natural gas for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

(c) Pursuant to 40 CFR 60.49b(g), the Permittee shall maintain records of the following information for each recuperative thermal oxidizer/heat recovery steam generating unit

operating day:

(1) Calendar date.

(2) The average hourly nitrogen oxides emission rates (expressed as NO_2) (ng/J or lb/million Btu heat input) measured or predicted.

(3) The 30-day average nitrogen oxides emission rates (ng/J or lb/million Btu heat input) calculated at the end of each recuperative thermal oxidizer/heat recovery steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.

(4) Identification of the recuperative thermal oxidizers/heat recovery steam generating units operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under 40 CFR 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.

(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.

(6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.

(7) Identification of “F” factor used for calculations, method of determination, and type of fuel combusted.

(8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.

(9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.

(d) To document compliance with D.1.4(h), the Permittee shall maintain records of the number of hours that the biomethanator operates each month.

(e) To document compliance with D.1.4(d), the Permittee shall maintain monthly records of the amount of natural gas and biogas used.

(f) To document compliance with D.1.4(e)(3), the Permittee shall maintain monthly records of the amount of denatured ethanol loaded out from both truck loading rack and railcar loading rack combined.

(g) To document compliance with D.1.4(e)(3), the Permittee shall maintain records of the number of hours that the truck loading rack and railcar loading rack operate each month.

(h) To document compliance with D.1.4(c), the Permittee shall maintain records of the circulation rates, total dissolved solids (TDS), and drift rates.

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

D.1.24 Reporting Requirements

(a) A monthly summary of the information to document compliance with Condition D.1.4 and D.1.5 shall be submitted quarterly to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) Pursuant to 40 CFR 60.49b(a), the Permittee shall submit notification of the date of initial startup, as provided by 40 CFR 60.7. This notification shall include the information specified in 40 CFR 60.49b(a)(1) through (4).

(c) Pursuant to 40 CFR 60.49b(b), the Permittee shall submit the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B. The Permittee shall submit to the Administrator the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the affected facility.

(d) Pursuant to 40 CFR 60.49b(h), the Permittee shall submit excess emission reports for any excess emissions which occurred during the reporting period.

(e) Pursuant to 40 CFR 60.49b(i), the Permittee shall submit reports containing the information recorded under 40 CFR 60.49b(g) and Condition D.1.23(c).

(f) Pursuant to 40 CFR 60.49b(v), the Permittee may submit electronic quarterly reports for NOx in lieu of submitting the written reports required. The format of each quarterly electronic report shall be coordinated with IDEM, OAQ. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the Permittee shall coordinate with IDEM, OAQ to obtain their agreement to submit reports in this alternative format.

(g) Pursuant to 40 CFR 60.49b(w), the Permittee is required to submit the above reports each six (6) month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

SECTION D.2 FACILITY OPERATION CONDITIONS

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

Grain Terminal

(b) Grain Terminal with a maximum capacity of 1,498,000 tons of grains per year:

(1) One (1) truck dump hopper, constructed in 1974, enclosed on 2 sides with particulate emissions controlled by a baghouse, identified as # 1;

(2) One (1) rail/truck dump hopper, constructed in 1974, enclosed on 2 sides with particulate emissions controlled by a baghouse, identified as # 1;

(3) One (1) rail car/truck loading site, constructed in 1974, with no emission controls;

(4) One (1) Berico natural gas-fired dryer, constructed in 1974, with a maximum throughput capacity of 3,000 bushel per hour and a maximum heat input capacity of 16.5 million British thermal units (MMBtu) per hour with screen house enclosure;

(5) One (1) grain cleaner, constructed in 1974, rated at 15,000 bushels per hour with particulate emissions controlled by a baghouse, identified as # 2;

(6) Four million (4,000,000) bushel grain storage capacity with no emission controls;

(7) Four hundred thousand (400,000) bushel grain storage capacity with particulate emissions controlled by a baghouse, identified as # 2;

(8) Two (2) grain legs, constructed in 1974, with a maximum capacity of 7,500 bushel per hour, with particulate emissions controlled by a baghouse, identified as # 2; and

(9) One (1) hopper bottom truck grain receiving process, constructed in 2002, consisting of one (1) enclosed drag conveyor with a maximum design throughput of 7,000,000 bushels of corn per year, with particulate emissions controlled by one (1) conveyor enclosure.

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

Emission Limitations and Standards

D.2.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the hopper bottom truck grain receiving process except when otherwise specified in 40 CFR 60, Subpart DD.

D.2.2 Standards for Particulate Matter (PM) [40 CFR 60.302, Subpart DD]

On and after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere any fugitive emission from any individual truck unloading station, railcar unloading station, or railcar loading station, which exhibits greater than five percent (5%) opacity.

D.2.3 PSD Minor Limits and FESOP Limits [326 IAC 2-2] [326 IAC 2-8]

(a) The PM emissions from the following emission units shall not exceed the following emission limits:

Emission Unit/Facility	Control	PM Emission Limit (lbs/hr)
Grain Elevator -Receiving	Baghouse #1	1.0
Grain Drying	Screen Enclosure	4.9
Grain Elevator Internal Handling	Baghouse #2	0.11

Compliance with these PM limits in combination with the PM emission limits in Condition D.1.4, limits the PM emissions from the entire source to less than 100 tons per year, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) not applicable.

(b) The PM10 emissions from the following emission units shall be limited as follows:

Emission Unit/Facility	Control	PM10 Emission Limit (lbs/hr)
Grain Elevator -Receiving	Baghouse #1	0.31
Grain Drying	Screen Enclosue	1.22
Grain Elevator Internal Handling	Baghouse #2	0.06

Compliance with these PM10 limits in combination with the PM10 emission limits in Condition D.1.4, limits the PM10 emissions from the entire source to less than 100 tons per year, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not applicable.

(c) The grain throughput to the grain elevator shall be limited as follows:

(1) Straight truck controlled pit shall be limited to 3,000,000 bushels per twelve consecutive month period with compliance determined at the end of each month.

(2) Hopper truck and railcar controled pit shall be limited to 43,500,000 bushels per twelve consecutive month period with compliance determined at the end of each month.

(3) Hopper truck uncontrolled pit shall be limited to 7,000,000 bushels per twelve consecutive month period with compliance determined at the end of each month.

Compliance with these limits in combination with PM and PM10 limits in Condition D.1.4, limits the PM and PM10 emissions from the entire source to less than 100 tons per year each, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not applicable.

(d) The NOx emissions from the 16.5 million British thermal units per hour (MMBtu/hr) grain dryer shall not exceed 100 pounds per million cubic feet (lb/MMCF) and the CO emissions shall not exceed 84 pounds per million cubic feet (lb/MMCF) when using natural gas. Natural gas fuel usage shall be limited to 45,000,000 cubic feet per twelve consecutive month period with compliance determined at the end of each month.

The 16.5 million British thermal units per hour (MMBtu/hr) grain dryer shall only combust natural gas as fuel.

Compliance with these limits in combination with the limit in Condition D.1.4, limits the NOx and CO emissions from the entire source to less than 100 tons per year for each pollutant, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not be applicable.

D.2.4 Particulate Emission Limits [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the PM emission from the following emission units shall be limited as follows:

(1) The grain elevator receiving shall not exceed 56.8 pounds per hour when operating at a process weight rate of 171.0 tons per hour.

(2) The Berico grain dryer shall not exceed 49.65 pounds per hour when operating at a process weight rate of 84 tons per hour.

(3) The grain elevator internal handling shall not exceed 56.8 pounds per hour at a process weight rate of 171.0 tons per hour

The pound per hour limitations shall be calculated using the following equation:

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 is pounds per hour and
P = process weight rate in tons per hour

D.2.5 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.2.6 Particulate Matter and Particulate Matter Less Than Ten Microns (PM10) Control

In order to comply with Conditions D.2.3 and D.2.4, the baghouses shall be in operation at all times the grain elevator is in operation.

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

D.2.7 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust from stack #1 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.2.8 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with the grain elevator at least once per day when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.2.9 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 shutdown 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 emissions unit. 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 baghouses 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 Requirements

D.2.10 Record Keeping Requirements

(a) To document compliance with Condition D.2.7, the Permittee shall maintain records of all daily visible emission notations of the stack #1. 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 date).

(b) To document compliance with Condition D.2.8, the Permittee shall maintain records of the pressure drop across the baghouses used in conjunction with the grain elevator. 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 date).

(c) To document compliance with Condition D.2.3(c), the Permittee shall maintain records of the grain throughput to the elevator.

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

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.2.11 Reporting Requirements

A monthly summary of the information to document compliance with Condition D.2.3 shall be submitted quarterly to the address listed in Section C - General Reporting Requirements, of this

permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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SECTION D.3 FACILITY OPERATION CONDITIONS

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

(14) One (1) 300 horsepower (Hp) diesel-fired emergency pump, identified as EP-110.

(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.3.1 Prevention of Significant Deterioration (PSD) and Part 70 Operating Permit [326 IAC 2-2] [326 IAC 2-8]

(a) The NOx emissions from the 300 horsepower (Hp) diesel-fired emergency pump shall be limited to 9.30 pounds per hour and the operation of this pump shall be limited to 300 operating hours per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The sulfur content of the diesel fuel used by the emergency pump shall be limited to a maximum of 0.5%.

Compliance with these limits in combination with the NOx limits in Conditions D.1.4 and D.2.3, limit the NOx emissions from the entire source to less than 100 tons per year, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 Operating Permit not applicable.

D.3.2 Record Keeping Requirements

(a) To document compliance with Condition D.3.1, the Permittee shall maintain records of the number of hours that the emergency pump operates each month, and the sulfur content of the fuel used each month.

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

D.3.3 Reporting Requirements

The monthly hours of operation of the emergency pump shall be submitted quarterly to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or its equivalent, within thirty (30) days after the end of the six (6) month period being reported. The report submitted by the Permittee does require the certification by an “authorized individual” as defined by 326 IAC 2-1.1-1.

SECTION D.4 FACILITY CONDITIONS

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

(15) One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-2 that will store 190 proof ethanol with a capacity of 188,000 gallons.

(16) One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-3 that will store 200 proof ethanol with a capacity of 188,000 gallons.

(17) One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-4 that will store natural gasoline with a capacity of 235,000 gallons.

(18) One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-5 that will store denatured ethanol with a capacity of 2,200,000 gallons.

(19) One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-6 that will store denatured ethanol with a capacity of 740,000 gallons.

(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

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

D.4.4 Volatile Organic Compounds (VOC) [326 IAC 8-4]

Pursuant to 326 IAC 8-4-3, (Petroleum Liquid Storage Facilities), the following requirements shall be applicable to Tank-4.

(a) Tank-4 shall be retrofitted with an internal floating roof equipped with a closure seal, or seals, to close the space between the roof edge and tank wall unless the source has been retrofitted with equally effective alternative control which has been approved.

(b) Tank-4 shall be maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials.

(c) All openings, except stub drains, are equipped with covers, lids, or seals such that:
(1) the cover, lid, or seal is in the closed position 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.

Record Keeping and Reporting Requirements

D.4.5 Record Keeping Requirements

(a) The Permittee shall maintain records of the types of volatile petroleum liquid stored , the maximum true vapor pressure of the liquid as stored, and the results of the inspection performed on Tank-4. Such records shall be maintained for a period of two (2) years and shall be made available to the IDEM, OAQ upon written request.

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

SECTION E.1 FACILITY OPERATION CONDITIONS

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

(15) One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-2 that will store 190 proof ethanol with a capacity of 188,000 gallons.

(16) One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-3 that will store 200 proof ethanol with a capacity of 188,000 gallons.

(17) One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-4 that will store natural gasoline with a capacity of 235,000 gallons.

(18) One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-5 that will store denatured ethanol with a capacity of 2,200,000 gallons.

(19) One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-6 that will store denatured ethanol with a capacity of 740,000 gallons.

(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

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

The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart Kb.

E.1.2 Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) [40 CFR Part 60, Subpart Kb]

The following requirements under 40 CFR Part 60, Subpart Kb shall apply to Tank-2, Tank-3, Tank-4, Tank-5, and Tank-6:

§ 60.112b Standard for volatile organic compounds (VOC).

(a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:

(1) A fixed roof in combination with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover

§ 60.113b Testing and procedures.

The owner or operator of each storage vessel as specified in §60.112b(a) shall meet the requirements of paragraph (a), (b), or (c) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of §60.112b.

(a) After installing the control equipment required to meet §60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:

(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

(2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in §60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively,

this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

§ 60.115b Reporting and recordkeeping requirements.

The owner or operator of each storage vessel as specified in §60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of §60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.

(a) After installing control equipment in accordance with §60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the notification required by §60.7(a)(3).

(2) Keep a record of each inspection performed as required by §60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §61.112b(a)(1) or §60.113b(a)(3) and list each repair made.

§ 60.116b Monitoring of operations.

(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.

(b) The owner or operator of each storage vessel as specified in §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

(c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

(d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor vapor pressure values for each volume range.

(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference—see §60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

(3) For other liquids, the vapor pressure:

(i) May be obtained from standard reference texts, or

(ii) Determined by ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17); or

(iii) Measured by an appropriate method approved by the Administrator; or

(iv) Calculated by an appropriate method approved by the Administrator.

SECTION E.2 FACILITY OPERATION CONDITIONS

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

Ethanol Production Plant:

(a) Ethanol Production Plant with a maximum production rate of 137,500,000 gallons of ethanol per year:

(1) One (1) day bin with a maximum throughput of 7,500 bushels per hour, with grain transfer to the day bin controlled by baghouse S-20A.

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(2) Four (4) hammermills each with a maximum throughput of 100 tons per hour controlled by baghouses S-30A through S-30D. Grain transfer from the day bin to the hammermills is controlled by Baghouse S-20B.

(3) One (1) cook water tank with a capacity of 374,000 gallons.

(4) One (1) slurry mixer receiver (blend) tank with a capacity of 470 gallons. The emissions from this tank will be exhausted indirectly to the two Recuperative Thermal Oxidizers (RTOs) (C-10 and C-11) through the slurry tanks.

(5) Two (2) slurry tanks each has a capacity of 25,000 gallons. The emissions from these tanks will be exhausted to the two RTOs (C-10 and C-11).

(6) Two (2) cook tubes each with a capacity of 5,000 gallons.

(7) One flash tank with a capacity of 4,500 gallons.

(8) One syrup tank with a capacity of 180,000 gallons.

(9) One fermentation process, with a maximum throughput of 13,000 gallons per hour, controlled by CO_2 scrubber S-40, which includes:

(A) Seven (7) fermenters, each with a capacity of 807,000 gallons.
(B) Two (2) liquefaction tanks each with a capacity of 128,400 gallons.
(C) Two (2) yeast tanks each with a capacity of 20,000 gallons. The emissions from these tanks will be exhausted to the two RTOs (C-10 and C-11).

(10) One distillation and evaporation process controlled by the two RTOs (C-10 and C-11) with a maximum throughput of 1,375,000 tons per year consisting of the following:

(A) One (1) beerwell with a capacity of 1,080,000 gallons.
(B) One beer column.
(C) One side stripper.
(D) Six (6) molecular sieve condensers.
(E) Six (6) centrifuges.
(F) Two (2) centrate tanks with a capacity of 1,690 gallons each.
(G) Eight (8) evaporators.
(H) One (1) stillage tank with a capacity of 374,000 gallons.
(I) One (1) stillage tank with a capacity of 180,000 gallons.

(11) One (1) Dried Distillers Grain and Solubles (DDGS) drying process with a maximum throughput of 47.65 tons per hour, controlled by the two RTOs (C-10 and C-11). This process consists of the following:

(A) Four (4) DDGS dryers, identified as Dryers A, B, C, and D, each dryer has a heat input capacity of 45 MMBtu/hr or a total heat input capacity of 180 MMBtu/hr, with a total drying rate of 417,411 tons of DDGS per year.
(B) One (1) DDGS cooling drum with a maximum throughput of 417,411 tons of DDGS per year, controlled by two baghouses discharging through a common exhaust point, identified as S-70.
(C) One (1) four cell cooling tower with a circulation rate of 3,000,000 gallons per hour.
(D) One DDGS truck/rail loadout with a maximum capacity of 500 tons per hour, controlled by a baghouse, identified as S-90.

(12) Ethanol loading racks with a total maximum throughput of 137,500,000 gallons per year of ethanol, consisting of the following:

(A) One (1) ethanol truck loading rack, utilizing submerged loading only. The truck loading process is controlled by an enclosed flare with a heat input capacity of 12.4 million British thermal units per hour (MMBtu/hr).
(B) One (1) ethanol railcar loading rack, utilizing submerged loading only. The railcar loading process is controlled by an enclosed flare with a heat input capacity of 12.4 MMBtu/hr.

(13) Two (2) Recuperative Thermal Oxidizers (RTOs)/heat recovery steam generators, identified as C-10 and C-11, using natural gas and process waste gases, each with a maximum heat input capacity of 122 MMBtu/hr.

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

E.2.1 40 CFR 60, Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry

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

(a) Each pump in light liquid service shall

(1) be monitored monthly to detect leaks by the methods specified in §60.485(b), except as provided in §60.482-1(c) and paragraphs (d), (e), and (f) of this section.

(2) be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

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

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

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

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

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

(1) Each dual mechanical seal system is -

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

§ 60.482-5 Standards: Sampling connection systems.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) Tightening of bonnet bolts;

(2) Replacement of bonnet bolts;

(3) Tightening of packing gland nuts;

(4) Injection of lubricant into lubricated packing.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

§ 60.482-9 Standards: Delay of repair.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(c) 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

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

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

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

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

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

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

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

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

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

§ 60.485 Test methods and procedures.

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

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

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

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

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

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

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

(2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference

between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Where:

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

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

K_1 = 8.706 m/sec (metric units) = 28.56 ft/sec (English units)

K_2 = 0.7084 m^4 /(MJ-sec) (metric units) = 0.087 ft^4 /(Btu-sec) (English units)

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

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

Where:

K = Conversion constant, 1.740×10^{7} (g-mole)(MJ)/ (ppm-scm-kcal) (metric units) = 4.674×10^{8} [(g-mole)(Btu)/(ppm-scf-kcal)] (English units)

C_i = Concentration of sample component "i," ppm

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

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

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

(7) Method 2, 2A, 2C, or 2D, as appropriate, shall be used to determine the actual exit velocity

§ 60.486 Recordkeeping requirements.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) A schedule of monitoring.

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

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

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

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

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

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

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

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

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION

Source Name: The Andersons Clymers Ethanol, LLC
Source Address: County Roads 300S and 350 W, Logansport, IN 46947
Mailing Address: P.O. Box 119, Maumee, OH 43537
NSR/FESOP No.: 017-21536-00023

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)_____

☐ Report (specify)_____

☐ Notification (specify)_____

☐ Affidavit (specify)_____

☐ Other (specify)_____

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

Signature:
Printed Name:
Title/Position:
Date:

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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: The Andersons Clymers Ethanol, LLC
Source Address: County Roads 300S and 350 W, Logansport, IN 46947
Mailing Address: P.O. Box 119, Maumee, OH 43537
NSR/FESOP No.: 017-21536-00023

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

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

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

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

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

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

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

A certification is not required for this report.

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

FESOP Quarterly Report

Source Name: The Andersons Clymers Ethanol, LLC
Source Address: County Roads 300S and 350 W, Logansport, IN 46947
Mailing Address: P.O. Box 119, Maumee, OH 43537
NSR/FESOP No.: 017-21536-00023
Facility: RTOs & DDGS, Grain Dryer, and Emergency Pump
Parameter: NOx Emissions
Limit: RTOs - 51 lb/MMCF and 2,137.4 MMCF of natural gas per 12 months
Grain Dryer - 100 lbs/MMCF and 45,000,000 cubic feet natural gas per 12 months
300 HP Emergency Pump – 300 operating hours per 12 months
DDGS Dryers - 51 lbs/MMCF and 1,550.5 MMCF of natural gas per 12 months When using biogas as fuel every 1.17 cubic feet is equivalent to 1 cubic foot of natural gas.

QUARTER: _____YEAR:_____

Table 1 – RTOs Limit - 51 lb/MMCF and 2,137.4 MMCF of natural gas per 12 month period **Page 1 of 3**

Month	Column 1		Column 2		Column 1 + 2	
	Natural Gas Usage (MMCF)	Equivalent NOx Emissions	Previous 11 Months		12 Month Total	
			Natural Gas Usage (MMCF)	Equivalent NOx Emissions	Natural Gas Usage (MMCF	Equivalent NOx Emissions
Month 1						
Month 2						
Month 3						

Methodology:
NOx Emissions, tons/yr = Ef, lb/MMCF * MMCF nat. gas usage/month *12 mos/yr * ton/2000 lb

Table 2 – Grain Dryer' Limit - 100 lbs/MMCF and 45,000,000 cubic feet natural gas per 12 month period

Month	Column 1		Column 2		Column 1 + 2	
	Natural Gas Usage (MMCF)	Equivalent NOx Emissions	Previous 11 Months		12 Month Total	
			Natural Gas Usage (MMCF)	Equivalent NOx Emissions	Natural Gas Usage (MMCF	Equivalent NOx Emissions
Month 1						
Month 2						
Month 3						

Methodology:
NOx Emissions, tons/yr = N. Gas usage, MMCF/mo * 100 lb/MMCF * ton/2000 lb

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Table 3 – 300 Hp Emergency Pump Limit - 300 operating hours per twelve month period **Page 2 of 3**

Month	Column 1		Column 2		Column 1 + 2	
	Hours Operated	Equivalent NOx Emissions	Previous 11 Months		12 Month Total	
			Hours Operated	Equivalent NOx Emissions	Hours Operated	Equivalent NOx Emissions
Month 1						
Month 2						
Month 3						

Methodology:
NOx Emissions, tons/yr = 300 HP * Ef, 0.0310 lb/HP-hr * hours operated/month * 12 months/yr.

Table 4 - DDGS Dryers Limit - 51 lbs/MMCF and 1,550.5 MMCF of natural gas per 12 month period

Month	Fuel Type	Natural Gas Usage This Month (MMCF)	Equivalent Natural Gas Usage This Month (MMCF)	TOTAL Natural Gas This Month (MMCF)	Equivalent NOx Emissions This Month	Natural Gas Usage for Previous 11 Months (MMCF)	Equivalent Natural Gas Usage for Previous 11 Months (MMCF)	TOTAL Natural Gas Usage for Previous 11 Months (MMCF)	Equivalent NOx Emissions Previous 11 Months	Natural Gas Usage 12 Month Total	Equivalent Natural Gas Usage 12 Month Total	TOTAL Natural Gas Usage 12 Month Total	Equivalent NOx Emissions 12 Month Total
1													
2													
3													

Note: For every 1.17 cubic feet of biogas is equivalent to 1 cubic foot of natural gas.

Table 5 – Biomethanator Flare Limit - 1000 operating hours per twelve month period

Month	Column 1		Column 2		Column 1 + 2	
	Hours Operated	Equivalent NOx Emissions	Previous 11 Months		12 Month Total	
			Hours Operated	Equivalent NOx Emissions	Hours Operated	Equivalent NOx Emissions
Month 1						
Month 2						
Month 3						

Methodology:
Emissions, tons/yr = heat input, MMBtu/hr * Ef, flaring + pilot * hours operated/month *

Table 6 – Total NOx Emissions from Table 1 to Table 5 **Page 3 of 3**

Month	Column 1	Column 2	Column 1 + 2
	Total NOx This Month	Total NOx Previous 11 Months	Total NOx 12 Month
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter. _____

☐ Deviation/s occurred in this quarter. _____

☐ Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: The Andersons Clymers Ethanol, LLC
Source Address: County Roads 300S and 350 W, Logansport, IN 46947
Mailing Address: P.O. Box 119, Maumee, OH 43537
NSR/FESOP No.: 017-21536-00023
Facility: Loading Racks (Trucks and Railcars Combined)
Parameter: VOC Emissions
Limit: 137,500,000 million gallons per twelve month period.

QUARTER: _____YEAR:_____

Month	Column 1	Column 2	Column 1 + 2
	Ethanol Loaded This Month	Ethanol Loaded Previous 11 Months	Ethanol Loaded Total 12 Months
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter. _____

☐ Deviation/s occurred in this quarter. _____

☐ Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: The Andersons Clymers Ethanol, LLC
Source Address: County Roads 300S and 350 W, Logansport, IN 46947
Mailing Address: P.O. Box 119, Maumee, OH 43537
NSR/FESOP No.: 017-21536-00023
Facility: Loading Racks (Truck and Railcars Combined)
Parameter: VOC Emissions
Limit: 3000 operating hours per twelve month period.

QUARTER: _____YEAR:_____

Month	Column 1	Column 2	Column 1 + 2
	Hours Operated This Month	Hours Operated Previous 11 Months	Hours Operated Total 12 Months
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter. _____

☐ Deviation/s occurred in this quarter. _____

☐ Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: The Andersons Clymers Ethanol, LLC
Source Address: County Roads 300S and 350 W, Logansport, IN 46947
Mailing Address: P.O. Box 119, Maumee, OH 43537
NSR/FESOP No.: 017-21536-00023
Facility: RTOs & DDGS
Parameter: SO_2 Emissions
Limit: 0.45 lb/ton DDGS dried and
DDGS Dried at 417,411 tons per twelve month period.

QUARTER: _____YEAR:_____

Month	Column 1	Column 2	Column 1 + 2
	DDGS Dried This Month	DDGS Dried Previous 11 Months	DDGS Dried Total 12 Months
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter. _____

☐ Deviation/s occurred in this quarter. _____

☐ Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)

FESOP Quarterly Report

Source Name: The Andersons Clymers Ethanol, LLC
Source Address: County Roads 300S and 350 W, Logansport, IN 46947
Mailing Address: County Roads 300S and 350 W, Logansport, IN 46947
NSR/FESOP No.: 017-21536-00023
Facility: Grain Dryer
Parameter: CO Emissions
Limit: 84 pounds of CO per MMCF and
45,000,000 cubic feet of natural gas per twelve month period.

Month	Column 1	Column 2	Column 1 + 2
	Natural Usage This Month	Natural Usage Previous 11 Months	Natural Usage Total 12 Month
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter. _____

☐ Deviation/s occurred in this quarter. _____

☐ Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: The Andersons Clymers Ethanol, LLC
Source Address: County Roads 300S and 350 W, Logansport, IN 46947
Mailing Address: P.O. Box 119, Maumee, OH 43537
NSR/FESOP No.: 017-21536-00023
Facility: Grain Elevator
Parameter: PM and PM10 Emissions
Limits: Straight truck controlled pit – 3,000,000 bushels per twelve month period.
Hopper truck and railcar controlled pit – 43,500,000 bushels per twelve month period.
Hopper truck uncontrolled pit – 7,000,000 bushels per twelve month period.

QUARTER: _____YEAR:_____

Month	Column 1			Column 2			Column 1 + 2		
	Grain Handled This Month			Grain Handled Previous 11 Months			Grain Handled 12 Months		
	Straight truck controlled pit	Hopper truck and railcar controlled pit	Hopper truck uncontrolled pit	Straight truck controlled pit	Hopper truck and railcar controlled pit	Hopper truck uncontrolled pit	Straight truck controlled pit	Hopper truck and railcar controlled pit	Hopper truck uncontrolled pit
Month 1									
Month 2									
Month 3									

☐ No deviation occurred in this quarter. _____
☐ Deviation/s occurred in this quarter. _____
☐ Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: The Andersons Clymers Ethanol, LLC
Source Address: County Roads 300S and 350 W, Logansport, IN 46947
Mailing Address: County Roads 300S and 350 W, Logansport, IN 46947
NSR/FESOP No.: 017-21536-00023

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

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked 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: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP)

Source Description and Location

Source Name:	**The Andersons Clymers Ethanol, LLC**
Source Location:	**County Road 300 S and 350 W, Logansport, IN 46974**
County:	**Cass**
SIC Code:	**2869**
Operation Permit No.:	**F 017-21536-00023**
Operation Permit Issuance Date:	**February 15, 2006**
Significant Permit Revision No.:	**017-26224-00023**
Permit Reviewer:	**Jason R. Krawczyk**

On March 06, 2008, the Office of Air Quality (OAQ) had received an application from The Andersons Clymers Ethanol, LLC, related to a modification to an existing Fuel Ethanol Production Plant.

Source Definition

This stationary source consists of the following plants:

(a) Grain Terminal located at County Road 300 S and 350 W, Logansport, IN 46947; and

(b) Ethanol Plant located at County Road 300 S and 350 W, Logansport, IN 46947.

Since the two (2) plants are located at the same address, the grain terminal supports the ethanol plant, and are under common control of the same entity, they are considered to be one (1) source. This determination was initially made under FESOP No. 017-21536-00023, issued on February 15, 2006.

Existing Approvals

The source was issued FESOP No. 017-21536-00023 on February 15, 2006.

County Attainment Status

The source is located in Cass County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O3	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 $PM_{2.5}$.	

(a) Ozone Standards

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

(2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.

(3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.

(4) 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. Cass 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) PM2.5
Cass County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.

(c) Other Criteria Pollutants
Cass County has been classified as attainment or unclassifiable in Indiana for SO2, CO, PM10, NO2, and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Based on the amendment made in 40 CFR 51.165 and 40 CFR 52.21, effective July 2, 2007, ethanol plants are not considered chemical processing plants, therefore fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicablity.

Status of the Existing Source

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

	Potential To Emit (tons/year)						
Process/emission unit	PM	PM-10	SO_2	VOC	CO	NO_x	HAPs
Grain Elevator	1.84	0.37	0.0	0.0	0.0	0.0	0.0
Grain Drying Process	1.06	1.06	0.0	0.0	0.0	0.0	0.0
Grain Dryer Combustion	0.04	0.16	0.01	0.12	1.8	2.15	0.0
Hammermill	14.52	7.26	0.0	0.0	0.0	0.0	0.0
Grain Handling/Transferring (From Existing Elevator to Ethanol Plant	7.41	7.41	0.0	0.0	0.0	0.0	0.0
DDGS Cooling Drum	3.21	3.21	0.0	13.2	0.0	0.0	0.0
DDGS Storage Loadout	4.3	1.45	0.0	0.0	0.0	0.0	0.0
Cooling Tower	16.44	16.44	0.0	0.0	0.0	0.0	Single 0.54 Combined 1.02
Paved Roads (Fug.)	19.1	3.73	0.0	0.0	0.0	0.0	0.0
Valves Flanges (Fug.)	0.0	0.0	0.0	9.74	0.0	0.0	Single 1.5 Combined 1.69
Fermentation	0.27	0.61	0.0	33.0	0.0	0.0	Single HAP 4.59 Combined 6.0
Loading Rack Flare	0.0	0.0	0.0	1.6	0.0	0.0	0.0
Methanator Flare	0.0008	0.0033	0.0003	0.0824	0.63	0.154	0.0
RTOs Combustion & DDGS Dryers	30.33	30.33	81.41	35.7	94.57	94.7	Single 1.92 combined 2.0
Emergency Pump	0.17	0.17	0.15	0.19	0.5	2.23	0.0
Storage Tanks	0.0	0.0	0.0	2.5	0.0	0.0	0.0
Total Emissions	98.69	72.2	81.57	96.13	97.5	99.23	Single worst 8.55 Combined 10.71
Title V Threshold Levels	100	100	100	100	100	100	
PSD Threshold Levels	250	250	250	250	250	250	-

This PTE is based on the TSD of FESOP 017-21536-00023, issued on February 15, 2006.

(a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no attainment regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(b) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the Permittee has accepted limits on HAPs emissions 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, this source is an area source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application, submitted by The Andersons Clymers Ethanol, LLC on March 6, 2008, relating to the itemized throughput modifications listed below:

Ethanol Plant

1. Increase in the ethanol plant capacity from 110 million gallons per year (MMGPY) to 137.5 MMGPY.
2. Decrease in the fire pump usage from 500 hours per year (hr/yr) to 300 hr/yr.
3. Increase the Dried Distillers Grain and Solubles (DDGS) production from 356,880 tons per year (TPY) to 417,411 TPY.
4. Increase the Biomethanator operating schedule from 500 hr/yr to 1,000 hr/yr.

Grain Elevator

5. Increase the grain receiving by straight truck from 2,000,000 bushels per year (bu/yr) to 3,000,000 bu/yr.
6. Increase the grain receiving by hopper from 37,285,716 bu/yr to 43,500,000 bu/yr.
7. Increase the grain receiving limit for the uncontrolled pit from 1,000,000 bu/yr to 7,000,000 bu/yr.
8. Increase the gas usage limit for the grain dryer from 42,900,000 cubic feet per year (ft^3/yr) to 45,000,000 ft^3/yr.

The following reconfiguration of emission control systems is listed below:

1. Change the identification of the baghouse associated with the grain transfer to the day bin from "One Baghouse S-20" to "Baghouse S-20A".
2. Identify the previously unidentified baghouse for the day bin and transfer to the hammermills as "One Baghouse S-20B".
3. Change the identification of the baghouse(s) associated with the hammermills from "One Baghouse S-30" to "Four Dedicated Baghouses (S-30 A through S-30D)".
4. Change the identification of the baghouse associated with the cooling drum from "One Baghouse S-70" to "two baghouses discharging through a common exhaust point, S-70".
5. Delete the baghouse for the scalper, identified as "One Baghouse S-30," from the Ethanol Plant Inventory. (The Grain Elevator has a scalper or cleaner)

(a) All processes/units associated with the Ethanol Production Plant, constructed in 2007, approved for modification in 2008, with a maximum capacity of 137,500,000 gallons will be affected by the increase in production rate.

(b) All processes/units associated with the Grain Terminal, constructed in 1974, modified in 2002, and approved for modification in 2008, with a maximum capacity of 1,498,000 tons of grains per year will be affected by the increase in material throughput.

Enforcement Issues

There are no pending enforcement actions related to this revision.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – FESOP Revision

The following table is used to determine the appropriate permit level under 326 IAC 2-8.11.1. This table reflects the PTE before controls of the proposed revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/Emission Unit	PTE of Proposed Revision (tons/year)[α]							
	PM	PM10*	SO_2	NOx	VOC	CO	Total HAPs	Worst Single HAP
Grain Elevator	2.62	0.80	0	0	0	0	0	0
Grain Drying Process	3.18	0	0	0	0	0	0	0
Grain Dryer Combustion	0.13	0.01	0	0.10	0	0.09	0	0
Hammermill	(6.27)	(3.13)	0	0	0	0	0	0
Grain Handling/Transferring (From Existing Elevator to Ethanol Plant	(6.21)	(6.21)	0	0	0	0	0	0
DDGS Cooling Drum	3.17	3.17	0	0	2.24	0	1.19	0.63 Acetaldehyde
DDGS Storage Loadout	(2.05)	0.80	0	0	0	0	0	0
DDGS Storage/Handling (Fug.) [β]	1.42	2.55	0	0	0	0	0	0
DDGS Loadout (Fug.) [β]	0.01	0.03	0	0	0	0	0	0

Process/Emission Unit	PTE of Proposed Revision (tons/year)[α]							
	PM	PM10*	SO_2	NOx	VOC	CO	Total HAPs	Worst Single HAP
Cooling Tower	(2.74)	(2.74)	0	0	0	0	(1.02)	(.54) Acetaldehyde
Paved Roads (Fug.) [β]	7.31	1.49	0	0	0	0	0	0
Valves Flanges (Fug.) [β]	0	0	0	0	0	0	0.01	0
Fermentation	0.07	.15	0	0	8.25	0	.39	0.02 Acetaldehyde
Loading Rack Flare	0.003	0.003	0.0003	.76	0.06	3.91	0.66	0.25 Toluene
Methanator Flare	0	0	0	0.066	0.876	0.55	0	0
RTOs Combustion & DDGS Dryers	(1.11)	(1.11)	13.46	0.01	(14.83)	(2.74)	5.87	0.42 Acetaldehyde
Emergency Pump	(0.07)	(0.07)	(0.06)	(0.83)	(0.08)	(0.20)	0	0
Storage Tanks	0	0	0	0	.22	0	0	0
Insignificant Process Tanks	0	0	0	0	0.65	0	0	0
Total PTE of Proposed Revision	(28.36)	(12.04)	13.57	0.10	(13.14)	1.62	5.40	(0.98) Acetaldehyde

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". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.
α The PTE of the proposed revision shows the difference in PTE prior to and after the proposed revision. "( )" denotes a decrease in potential to emit. See table "Potential to Emit of the Entire Source to accommodate the Proposed Revision (tons/year)"
β Based on the amendment made in 40 CFR 51.165 and 40 CFR 52.21, effective July 2, 2007, ethanol plants are not considered chemical processing plants, therefore fugitive emissions are no longer counted toward the determination of PSD, Emission Offset, and Part 70 Applicability.

This FESOP is being revised through a FESOP Significant Permit Revision pursuant to 326 IAC 2-8-11.1(g)(2) because it involves adjustment to the existing source-wide emissions limitations to maintain the FESOP status of the source (see PTE of the Entire Source After The Issuance of the FESOP Revision Section).

PTE of the Entire Source After Issuance of the FESOP Revision

The table below summarizes the potential to emit of the entire source *(reflecting adjustment of existing limits)*, with updated emissions shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

Process/Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)							
	PM	PM10*	SO_2	NOx	VOC	CO	Total HAPs	Worst Single HAP
Grain Elevator	~~1.84~~ **4.46**	~~0.37~~ **1.17**	0.0	0.0	0.0	0.0	0.0	0.0
Grain Drying Process	~~1.06~~ **4.24**	1.06	0.0	0.0	0.0	0.0	0.0	0.0
Grain Dryer Combustion	~~0.04~~ **0.17**	~~0.16~~ **0.17**	0.01	~~2.15~~ **2.25**	0.12	~~1.8~~ **1.89**	0.0	0.0
Hammermill	~~14.52~~ **8.25**	~~7.26~~ **4.13**	0.0	0.0	0.0	0.0	0.0	0.0
Grain Handling/Transferring (From Existing Elevator to Ethanol Plant	~~7.41~~ **1.20**	~~7.41~~ **1.20**	0.0	0.0	0.0	0.0	0.0	0.0

Process/Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)							
	PM	PM10*	SO_2	NOx	VOC	CO	Total HAPs	Worst Single HAP
DDGS Cooling Drum	~~3.21~~ **6.38**	~~3.21~~ **6.38**	0.0	0.0	~~13.2~~ **15.44**	0.0	~~0.0~~ 1.19	~~0.0~~ **0.63 Acetaldehyde**
DDGS Storage Loadout	~~4.3~~ **2.25**	~~1.45~~ **2.25**	0.0	0.0	0.0	0.0	0.0	0.0
DDGS Storage/Handling (Fug.) α	**1.42**	**2.55**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
DDGS Loadout (Fug.) α	**0.01**	**0.03**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Cooling Tower	~~16.44~~ **13.70**	~~16.44~~ **13.70**	0.0	0.0	0.0	0.0	~~0.54~~ **0.0**	~~1.02~~ **0.0**
Paved Roads (Fug.) α	~~19.1~~ **26.41**	~~3.73~~ **5.22**	0.0	0.0	0.0	0.0	0.0	0.0
Valves Flanges (Fug.) α	0.0	0.0	0.0	0.0	9.74	0.0	~~1.69~~ **1.70**	1.50 Acetaldehyde
Fermentation	~~0.27~~ **0.34**	~~0.61~~ **0.76**	0.0	0.0	~~33.0~~ **41.25**	0.0	~~6.0~~ **6.39**	~~4.59~~ **4.61 Acetaldehyde**
Loading Rack Flare	~~0.0~~ **0.003**	~~0.0~~ **0.003**	~~0.0~~ **0.0003**	~~0.0~~ **0.76**	~~1.6~~ **1.66**	~~0.0~~ **3.91**	~~0.0~~ **0.66**	~~0.0~~ **0.25 Toluene**
Methanator Flare	0.0008	0.0033	0.0003	~~0.154~~ **0.26**	~~0.0824~~ **0.17**	~~0.63~~ **1.22**	0.0	0.0
RTOs Combustion & DDGS Dryers	~~30.33~~ **29.22**	~~30.33~~ **29.22**	~~81.41~~ **95.03**	~~94.7~~ **94.71**	~~35.7~~ **20.87**	~~94.57~~ **91.83**	~~2.0~~ **7.87**	~~1.92~~ **2.34 Acetaldehyde**
Emergency Pump	~~0.17~~ **0.10**	~~0.17~~ **0.10**	~~0.15~~ **0.09**	~~2.23~~ **1.40**	~~0.19~~ **0.11**	~~0.5~~ **0.30**	0.0	0.0
Storage Tanks	0.0	0.0	0.0	0.0	~~2.5~~ **2.72**	0.0	0.0	0.0
Insignificant Process Tanks	**0**	**0**	**0**	**0**	**0.65**	**0**	**0**	**0**
Total PTE of Entire Source	~~98.69~~ **70.33**	~~72.2~~ **60.16**	~~81.57~~ **95.14**	~~99.23~~ **99.38**	~~96.13~~ **82.99**	~~97.5~~ **99.16**	~~10.71~~ **16.11**	~~8.55~~ **7.57 Acetaldehyde**
Title V Major Source Thresholds	NA	100	100	100	100	100	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	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". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.
α Based on the amendment made in 40 CFR 51.165 and 40 CFR 52.21, effective July 2, 2007, ethanol plants are not considered chemical processing plants, therefore fugitive emissions are no longer counted toward the determination of PSD, Emission Offset, and Part 70 Applicability.

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this FESOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit. (Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted).

Process/Emission Unit	Potential To Emit of the Entire Source After Issuance of Revision (tons/year) (9) (10)							
	PM (1)	PM10* (2)	SO_2	NOx	VOC (4)	CO	Total HAPs	Worst Single HAP
Grain Elevator	4.46	1.17	0.0	0.0	0.0	0.0	0.0	0.0
Grain Drying Process	4.24	1.06	0.0	0.0	0.0	0.0	0.0	0.0
Grain Dryer Combustion	0.17	0.17	0.01	2.25	0.12	1.89	0.0	0.0
Hammermill	8.25	4.13	0.0	0.0	0.0	0.0	0.0	0.0
Grain Handling/Transferring (From Existing Elevator to Ethanol Plant	1.20	1.20	0.0	0.0	0.0	0.0	0.0	0.0
DDGS Cooling Drum	6.38	6.38	0.0	0.0	15.44	0.0	1.19	0.63 Acetaldehyde
DDGS Storage Loadout	2.25	2.25	0.0	0.0	0.0	0.0	0.0	0.0
DDGS Storage/Handling (Fug.) (11)	1.42	2.55	0.0	0.0	0.0	0.0	0.0	0.0
DDGS Loadout (Fug.) (11)	0.01	0.03	0.0	0.0	0.0	0.0	0.0	0.0
Cooling Tower	13.70 (3)	13.70 (3)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Roads (Fug.) (11)	26.41	5.22	0.0	0.0	0.0	0.0	0.0	0.0
Valves Flanges (Fug.) (11)	0.0	0.0	0.0	0.0	9.74	0.0	1.70	1.50 Acetaldehyde
Fermentation	0.34	0.76	0.0	0.0	41.25	0.0	6.39	4.61 Acetaldehyde
Loading Rack Flare	0.003	0.003	0.0003	0.76	1.66	3.91	0.66	0.25 Toluene
Methanator Flare (7)	0.0008	0.0033	0.0003	0.26	0.17	1.22	0.0	0.0
RTOs Combustion & DDGS Dryers	29.22	29.22	95.03(6)	94.71	20.87	91.83(5)	7.87(8)	2.34 Acetaldehyde
Emergency Pump	0.10	0.10	0.09	1.40	0.11	0.30	0.0	0.0
Storage Tanks	0.0	0.0	0.0	0.0	2.72	0.0	0.0	0.0
Insignificant Process Tanks	0.0	0.0	0.0	0.0	0.65	0.0	0.0	0.0
Total PTE of Proposed Revision	70.33	60.16	95.14	99.38	82.99	99.16	16.11	7.57 Acetaldehyde
Title V Major Source Thresholds	NA	100	100	100	100	100	25	10
PSD Major Source Thresholds	100	100	100	100	100	100	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". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

(a) FESOP Status
This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP).

(b) PSD Minor Source
This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), and to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the source shall comply with the following:

(1) The PM emissions from the following emission units shall not exceed the following emission limits:

Emission Unit/Facility	Control	PM Emission Limit (lbs/hr)
Hammermills, and Grain Transfer to Ethanol Day Bin	Baghouses: S-30A – S30D (Hammermills) S-20A (Grain Transfer to Day Bin) S-20B (Day Bin and Transfer to Hammermills)	2.16
DDGS Storage/Loadout	Baghouse S-90	0.51
DDGS Cooling Drum	Baghouse S-70	1.46
DDGS Dryer	RTOs C-10&C-11	6.67
Grain Elevator -Receiving	Baghouse #1	0.86
Grain Drying	Screen Enclosure	0.97
Grain Internal Handling	Baghouse #2	0.11

(2) The PM10 emissions from the following emission units shall not exceed the following emission limits:

Emission Unit/Facility	Control	PM10 Emission Limit (lbs/hr)
Hammermills, and Grain Transfer to Ethanol Day Bin	Baghouses: S-30A – S30D (Hammermills) S-20A (Grain Transfer to Day Bin) S-20B (Day Bin and Transfer to Hammermills)	1.22
DDGS Storage/Loadout	Baghouse S-90	0.51
Cooling Drum	Baghouse S-70	1.46
DDGS Dryer	RTOs C-10&C-11	6.67
Grain Elevator -Receiving	Baghouse #1	0.19
Grain Drying	Screen Enclosure	0.24
Grain Internal Handling	Baghouse #2	0.06

(3) The PM/PM10 emissions from the cooling tower shall not exceed 3.13 pounds per hour, and 13.70 tons per year.

(4) The VOC emissions from the following emission units shall be limited as follows:

(a) The VOC emissions from the DDGS Cooling Drum shall be limited to 3.53 pounds per hour.

(b) The VOC emissions from the fermentation scrubber shall be limited to 9.42 pounds per hour.

(c) The VOC emissions from the loading racks shall be limited as follows:

(i) The combined VOC emissions from the truck loading rack and the railcar loading rack shall not exceed 1.66 lbs/hr.

(ii) The truck loading rack and the railcar loading rack shall be limited to a combined throughput of 137,500,000 gallons of ethanol per twelve consecutive month period with compliance determined at the end of each month.

(d) The VOC emissions from the two Recuperative Thermal Oxidizers (C-10 & C-11),

which controls emissions from distillation, evaporation, yeast tanks, and the DDGS Dryers shall not exceed 4.76 pounds per hour.

(5) The combined CO emissions from the two Recuperative Thermal Oxidizers (C-10 & C-11) and the four DDGS Dryers shall not exceed 20.97 pounds per hour.

(6) SO2 emissions from the four DDGS dryers shall not exceed 0.45 pound per ton of DDGS dried, and the throughput shall be limited to a total of 417,411 tons of DDGS dried per twelve consecutive month period with compliance determined at the end of each month.

(7) The operation of the biomethanator flare shall be limited to 1000 operating hours per twelve (12) consecutive month period with compliance determined at the end of each month.

(8) The HAP emissions from the DDGS drying controlled by the RTOs (C-10 and C-11) shall not exceed 0.53 pounds Acetaldehyde per hour.

(9) The grain throughput to the grain elevator shall be limited as follows:

(a) Straight truck controlled pit shall be limited to 3,000,000 bushels per twelve consecutive month period with compliance determined at the end of each month.

(b) Hopper truck and railcar controled pit shall be limited to 43,500,000 bushels per twelve consecutive month period with compliance determined at the end of each month.

(c) Hopper truck uncontrolled pit shall be limited to 7,000,000 bushels per twelve consecutive month period with compliance determined at the end of each month.

(10) Natural Gas fuel usage shall be limited to 45,000,000 cubic feet per twelve consecutive month period with compliance determined at the end of each month.

Compliance with these limits, combined with the potential to emit PM, PM10, SO_2, NO_X, CO, VOC, and Acetaldehyde, from all other emission units at this source, shall limit the source-wide total potential to emit of PM, PM10, SO_2, NO_X, CO, VOC to less than 100 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.

(11) Due to the amendment in 40 CFR 51.165 and 40 CFR 52.21, effective July 2, 2007, ethanol plants are no longer considered to be considered chemical processing plants, and are as a result are no longer 1 of 28. Therefore the fugitive emissions, although shown, are not counted towards the potential to emit.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

(a) There are no New Source Performance Standards (NSPS)(40 CFR Part 60) included for this proposed revision).

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14,

326 IAC 20 and 40 CFR Part 63) included for this proposed revision.

Compliance Assurance Monitoring (CAM)

(c) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

The following state rules are applicable to the proposed revision:

(a) 326 IAC 2-8-4 (FESOP)
This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP). See PTE of the Entire Source After Issuance of the FESOP Revision Section above.

(b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.

(c) All state rules identified in F017-21536-00023 are still applicable and enforceable unless otherwise noted in the following revisions.

(d) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from each of the following processes shall not exceed the pound per hour limits as follows.

Process /Facility	Process Weight Rate (tons/hr)	Particulate Emissions (lbs/hr)
Hammermills	156.96	55.92
DDGS Cooling Drum	47.65	44.13
DDGS Storage/Loadout	47.65	44.13
DDGS Drying	47.65	44.13

The pound per hour limitation was calculated with the following equation:

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

The corresponding baghouses shall be in operation at all times the above processes are in operation, in order to comply with this limit.

Compliance Determination, Monitoring and Testing Requirements

Upon review of the permit, the following testing requirements have been modified:

PM, PM10, VOC, CO, NOX, SO2, and Acetaldehyde stack testing is not required for the cooling tower identified in D.1.4(c). To document compliance with the cooling tower PM/PM10 limits, the Permittee shall maintain records of the circulation rates, total dissolved solids (TDS), and drift rates.

PM/PM10 tests shall include emission rates only. The requirement for control efficiencies of the baghouses has been removed, as this is not commonly used for PM/PM10 and the emission rates are considered sufficient.

No other existing compliance requirements will change as a result of this revision. The source shall continue to comply with the applicable requirements and permit conditions as contained in FESOP No: 017-21536-00023, issued on February 15, 2006.

Proposed Changes

(a) The following changes listed below are due to the proposed revision. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

A.2 Source Definition [326 IAC 2-8-1] [326 IAC 2-7-1(22)]

This stationary source consists of the following plants:

(a) ~~Existing~~ Grain Terminal ~~is~~ located at County Road 300 S and 350 W, Logansport, IN 46947; and

(b) ~~Proposed~~ Ethanol Plant ~~will also be~~ located at County Road 300 S and 350 W, Logansport, IN 46947.

Since the two (2) plants are located at the same address, the grain terminal supports the ethanol plant, and are under common control of the same entity, they ~~will be~~ **are** considered one (1) source.

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

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

Ethanol Production Plant:

(a) Ethanol Production Plant with a maximum production rate of ~~110,000,000~~ **137,500,000** gallons of ethanol per year:

(1) One (1) day bin with a maximum throughput of 7,500 bushels per hour.

~~(2)~~ ~~One (1) grain scalper, with a maximum throughput of 1,100,000 tons per year controlled by baghouse S-30.~~

(~~3~~)**(2)** Four (4) hammermills each with a maximum throughput of 100 tons per hour controlled by baghouse**s** S-30**A through S-30D**.

~~(4)~~**(3)** One (1) cook water tank with a capacity of 374,000 gallons.

~~(5)~~**(4)** One (1) slurry mixer receiver (blend) tank with a capacity of 470 gallons. The emissions from this tank will be exhausted indirectly to the two Recuperative Thermal Oxidizers (RTOs) (C-10 and C-11) through the slurry tanks.

~~(6)~~**(5)** Two (2) slurry tanks each with a capacity of 25,000 gallons. The emissions from these tanks will be exhausted to the two RTOs (C-10 and C-11).

~~(7)~~**(6)** Two (2) cook tubes each with a capacity of ~~5,200~~ **5,000** gallons.

~~(8)~~**(7)** One flash tank with a capacity of 4,500 gallons.

~~(9)~~**(8)** One syrup tank with a capacity of 180,000 gallons.

~~(10)~~**(9)** One fermentation process, with a maximum throughput of 13,000 gallons per hour, controlled by CO_2 scrubber S-40, which includes:

(A) Seven (7) fermenters, each with a capacity of 807,000 gallons.
(B) Two (2) liquefaction tanks each with a capacity of 128,400 gallons.
(C) Two (2) yeast tanks each with a capacity of ~~13,500~~ **20,000** gallons. The emissions from these tanks will be exhausted to the two RTOs (C-10 and C-11).

~~(11)~~**(10)** One distillation and evaporation process controlled by the two RTOs (C-10 and C-11) with a maximum throughput of ~~1,100,000~~ **1,375,000** tons per year consisting of the following:

(A) One (1) beerwell with a capacity of 1,080,000 gallons.
(B) One beer column.
(C) One side stripper.
(D) Six (6) molecular sieve condensers.
(E) Six (6) centrifuges.
(F) Two (2) centrate tanks with a capacity of 1,690 gallons each.
(G) Eight (8) evaporators.
(H) One (1) **thin** stillage tank with a capacity of 374,000 gallons.
(I) One (1) whole stillage tank with a capacity of 180,000 gallsons.

~~(12)~~**(11)** One (1) Dried Distillers Grain and Solubles (DDGS) drying process with a maximum throughput of ~~43~~ **47.65** tons per hour, controlled by the two RTOs (C-10 and C-11). This process consists of the following:

(A) Four (4) DDGS dryers, identified as Dryers A, B, C, and D, each dryer has a heat input capacity of 45 MMBtu/hr or a total heat input capacity of 180 MMBtu/hr, with a total drying rate of ~~356,880~~ **417,411** tons of DDGS per year.
(B) One (1) DDGS cooling drum with a maximum throughput of ~~356,880~~ **417,411** tons of DDGS per year, controlled by ~~a baghouse~~ **two baghouses discharging though a common exhaust point**, identified as S-70.
(C) One (1) four cell cooling tower with a circulation rate of 3,000,000 gallons per hour.
(D) One DDGS truck/rail loadout with a maximum capacity of 500 tons per hour, controlled by a baghouse, identified as S-90.

~~(13)~~**(12)** Ethanol loading racks with a total maximum throughput of ~~110,000,000~~ **137,500,000** gallons per year of ethanol, consisting of the following:

(A) One (1) ethanol truck loading rack, utilizing submerged loading only. The truck loading process is controlled by an enclosed flare with a heat input capacity of ~~6.4~~ **12.4** million British thermal units per hour (MMBtu/hr).

(B) One (1) ethanol railcar loading rack, utilizing submerged loading only. The railcar loading process is controlled by an enclosed flare with a heat input capacity of ~~6.4~~ **12.4** MMBtu/hr.

~~(14)~~**(13)** Two (2) Recuperative Thermal Oxidizers (RTOs)/heat recovery steam generators, identified as C-10 and C-11, using natural gas and process waste gases, each with a maximum heat input capacity of 122 MMBtu/hr.

~~(15)~~**(14)** One (1) 300 horsepower (Hp) diesel-fired emergency pump**, identified as EP-110.**

~~(16)~~**(15)** One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-2 that will store 190 proof ethanol with a capacity of ~~225,000~~ **188,000** gallons.

~~(17)~~**(16)** One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-3 that will store 200 proof ethanol with a capacity of ~~225,000~~ **188,000** gallons.

~~(18)~~**(17)** One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-4 that will store natural gasoline with a capacity of ~~91,000~~ **235,000** gallons.

~~(19)~~**(18)** One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-5 that will store denatured ethanol with a capacity of ~~2,114,000~~ **2,200,000** gallons.

~~(20)~~**(19)** One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-6 that will store denatured ethanol with a capacity of ~~750,000~~ **740,000** gallons.

Grain Terminal:

(b) Grain Terminal with a maximum capacity of ~~1,172,000~~ **1,498,000** tons of grains per year:

(1) One (1) truck dump hopper, constructed in 1974, enclosed on 2 sides with particulate emissions controlled by a baghouse, identified as # 1.

(2) One (1) rail/truck dump hopper, constructed in 1974, enclosed on 2 sides with particulate emissions controlled by a baghouse, identified as # 1.

(3) One (1) rail car/truck loading site, constructed in 1974, with no emission controls.

(4) One (1) Berico natural gas-fired dryer, constructed in 1974, with a maximum throughput capacity of 3,000 bushel per hour and a maximum heat input capacity of 16.5 million British thermal units (MMBtu) per hour with screen house enclosure.

(5) One (1) grain cleaner, constructed in 1974, rated at 15,000 bushels per hour with particulate emissions controlled by a baghouse, identified as # 2.

(6) Four million (4,000,000) bushel grain storage capacity in several steel tanks with no emission controls.

(7) Four hundred thousand (400,000) bushel grain storage capacity in concrete silos with particulate emissions controlled by a baghouse, identified as # 2.

(8) Two (2) grain legs, constructed in 1974, with a maximum capacity of 7,500 bushel per hour, with particulate emissions controlled by a baghouse, identified as # 2.

(9) One (1) hopper bottom truck grain receiving process, constructed in 2002, consisting of one (1) enclosed drag conveyor with a maximum design throughput of ~~1,000,000~~ **7,000,000** bushels of corn ~~and soybeans~~ per year, with particulate emissions controlled by one (1) conveyor enclosure.

A.4 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-

1(21):

(a) One (1) vertical fixed roof storage tank, identified as Tank-1 that will store corrosion inhibitor with a capacity of ~~3,008~~ **2,300** gallons.

...

SECTION D.1 FACILITY OPERATION CONDITIONS

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

Ethanol Production Plant:

(a) Ethanol Production Plant with a maximum production rate of ~~110,000,000~~ **137,500,000** gallons of ethanol per year:

(1) One (1) day bin with a maximum throughput of 7,500 bushels per hour**, with grain transfer to the day bin controlled by baghouse S-20A**.

~~(2) One (1) grain scalper, with a maximum throughput of 1,100,000 tons per year controlled by baghouse S-30.~~

(~~3~~)**(2)** Four (4) hammermills each with a maximum throughput of 100 tons per hour controlled by baghouse**s** S-30**A through S-30D**. **Grain transfer from the day bin to the hammermills is controlled by Baghouse S-20B.**

~~(4)~~**(3)** One (1) cook water tank with a capacity of 374,000 gallons.

~~(5)~~**(4)** One (1) slurry mixer receiver (blend) tank with a capacity of 470 gallons. The emissions from this tank will be exhausted indirectly to the two Recuperative Thermal Oxidizers (RTOs) (C-10 and C-11) through the slurry tanks.

~~(6)~~**(5)** Two (2) slurry tanks each with a capacity of 25,000 gallons. The emissions from these tanks will be exhausted to the two RTOs (C-10 and C-11).

~~(7)~~**(6)** Two (2) cook tubes each with a capacity of ~~5,200~~ **5,000** gallons.

~~(8)~~**(7)** One flash tank with a capacity of 4,500 gallons.

~~(9)~~**(8)** One syrup tank with a capacity of 180,000 gallons.

~~(10)~~**(9)** One fermentation process, with a maximum throughput of 13,000 gallons per hour, controlled by CO_2 scrubber S-40, which includes:

(A) Seven (7) fermenters, each with a capacity of 807,000 gallons.
(B) Two (2) liquefaction tanks each with a capacity of 128,400 gallons.
(C) Two (2) yeast tanks each with a capacity of ~~13,500~~ **20,000** gallons. The emissions from these tanks will be exhausted to the two RTOs (C-10 and C-11).

~~(11)~~**(10)** One distillation and evaporation process controlled by the two RTOs (C-10 and C-11) with a maximum throughput of ~~1,100,000~~ **1,375,000** tons per year consisting of the following:

(A) One (1) beerwell with a capacity of 1,080,000 gallons.
(B) One beer column.
(C) One side stripper.

(D) Six (6) molecular sieve condensers.
(E) Six (6) centrifuges.
(F) Two (2) centrate tanks with a capacity of 1,690 gallons each.
(G) Eight (8) evaporators.
(H) One (1) **thin** stillage tank with a capacity of 374,000 gallons.
(I) One (1) whole stillage tank with a capacity of 180,000 gallons.

~~(12)~~**(11)** One (1) Dried Distillers Grain and Solubles (DDGS) drying process with a maximum throughput of 43 tons per hour, controlled by the two RTOs (C-10 and C-11). This process consists of the following:

(A) Four (4) DDGS dryers, identified as Dryers A, B, C, and D, each dryer has a heat input capacity of 45 MMBtu/hr or a total heat input capacity of 180 MMBtu/hr, with a total drying rate of ~~356,880~~ **417,411** tons of DDGS per year.
(B) One (1) DDGS cooling drum with a maximum throughput of ~~356,880~~ **417,411** tons of DDGS per year, controlled by ~~a baghouse~~ **two baghouses discharging though a common exhaust point**, identified as S-70.
(C) One (1) four cell cooling tower with a circulation rate of 3,000,000 gallons per hour.
(D) One DDGS truck/rail loadout with a maximum capacity of 500 tons per hour, controlled by a baghouse, identified as S-90.

~~(13)~~**(12)** Ethanol loading racks with a total maximum throughput of ~~110,000,000~~ **137,500,000** gallons per year of ethanol, consisting of the following:

(A) One (1) ethanol truck loading rack, utilizing submerged loading only. The truck loading process is controlled by an enclosed flare with a heat input capacity of ~~6.4~~ **12.4** million British thermal units per hour (MMBtu/hr).

(B) One (1) ethanol railcar loading rack, utilizing submerged loading only. The railcar loading process is controlled by an enclosed flare with a heat input capacity of ~~6.4~~ **12.4** MMBtu/hr.

~~(14)~~**(13)** Two (2) Recuperative Thermal Oxidizers (RTOs)/heat recovery steam generators, identified as C-10 and C-11, using natural gas and process waste gases, each with a maximum heat input capacity of 122 MMBtu/hr.

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

…

D.1.4 PSD Minor Limits and FESOP Limits [326 IAC 2-2] [326 IAC 2-8]

(a) The PM emissions from the following emission units shall not exceed the following emission limits:

Emission Unit/Facility	Control	PM Emission Limit (lbs/hr)
Hammermill**s**, ~~Scalping,~~ and Grain ~~Handling~~ **Transfer** to Ethanol Day Bin	Baghouse**s** ~~S-30~~ **S-30A – S30D (Hammermills) S-20A (Grain Transfer to Day Bin) S-20B (Day Bin and Transfer to Hammermills)**	~~4.1~~ **2.16**
DDGS Storage/Loadout	Baghouse S-90	~~0.98~~ **1.10**
DDGS Cooling Drum	Baghouse S~~-90~~ **70**	~~0.73~~ **1.46**
DDGS Dryer	RTOs C-10&C-11	~~6.9~~ **6.67**

Compliance with these PM limits, in combination with the PM emission limits in Condition D.2.3, limits the PM emissions from the entire source to less than 100 tons per year, ~~which~~ renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) not applicable.

(b) The PM10 emissions from the following emission units shall not exceed the following emission limits:

Emission Unit/Facility	Control	PM10 Emission Limit (lbs/hr)
Hammermill**s**, ~~Scalping,~~ and Grain ~~Handling~~ **Transfer** to Ethanol Day Bin	Baghouse**s** ~~S-30~~ **S-30A – S30D (Hammermills) S-20A (Grain Transfer to Day Bin) S-20B (Day Bin and Transfer to Hammermills)**	~~2.09~~ **1.22**
DDGS Storage/Loadout	Baghouse S-90	~~0.33~~ **0.84**
DDGS Cooling Drum	Baghouse S-70	~~0.73~~ **1.46**
DDGS Dryer	RTOs C-10&C-11	~~6.9~~ **6.67**

Compliance with these PM10 limits**,** in combination with the PM10 emission limits in Condition D.2.3, limits the PM10 emissions from the entire source to less than 100 tons per year, ~~which~~ renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not applicable.

(c) The PM/PM10 emissions from the cooling tower shall not exceed ~~3.75~~ **3.13** pounds per hour, and ~~16.44~~ **13.70** tons per year. Compliance with this limit shall render the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not applicable.

(d) The NOx emissions from the following emission units shall be limited as follows:

(1) The NOx emissions from the two Recuperative Thermal Oxidizers (C-10 & C-11) shall not exceed 51 pounds per million cubic feet (lb/MMCF) when using natural gas, and the total natural gas fuel usage shall be limited to 2,137.4 million cubic feet per twelve consecutive month period with compliance determined at the end of each month.

(2) The NOx emissions from the four DDGS Dryers shall not exceed 51 pounds per million cubic feet (lb/MMCF) when using natural gas, and the total natural gas fuel usage shall be limited to 1,550.5 million cubic feet per twelve consecutive month period with compliance determined at the end of each month.

When using biogas as fuel for the DDGS Dyers every 1.17 cubic feet is equivalent to 1 cubic foot of natural gas.

(3) The RTOs (C-10 & C-11) shall only combust natural gas as fuel, and the DDGS dryers shall only combust natural gas and biogas as fuel.

(4) The NOx emissions from the RTOs (C-10 & C-11) shall be limited to 21.62 pounds per hour.

Compliance with these limits in combination with the NOx emission limits in Condition D.3.1, limits the NOx emissions from the entire source to less than 100 tons per year, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not applicable.

(e) The VOC emissions from the following emission units shall be limited as follows:

(1) The VOC emissions from the DDGS Cooling Drum shall be limited to ~~3~~ **3.53**

pounds per hour.

(2) The VOC emissions from the fermentation scrubber shall be limited to ~~7.5~~ **9.42** pounds per hour.

(3) The VOC emissions from the loading racks shall be limited as follows:

(i) The combined VOC emissions from the truck loading rack and the railcar loading rack shall not exceed ~~2.03~~ **4.54** lbs/hr.

(ii) The truck loading rack and the railcar loading rack shall be limited to a combined throughput of ~~110,000,000~~ **137,500,000** gallons of ethanol per twelve consecutive month period with compliance determined at the end of each month.

(iii) The truck loading rack and the railcar loading rack shall be limited to ~~1690~~ **3000** operating hours per twelve consecutive month period with compliance determined at the end of each month.

(iv) The railcar loading rack and the truck loading rack shall utilize only a submerged fill loading system.

(4) The VOC emissions from the two Recuperative Thermal Oxidizers (C-10 & C-11), which controls emissions from distillation, evaporation, yeast tanks, and the DDGS Dryers shall not exceed ~~8.15~~ **4.76** pound**s** per hour.

Compliance with these limits shall limit the VOC emissions from the entire source to less than 100 tons per year, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not applicable.

(f) The combined CO emissions from the two Recuperative Thermal Oxidizers (C-10 & C-11) and the four DDGS Dryers shall not exceed ~~21.6~~ **20.49** pounds per hour. Compliance with this limit in combination with the CO emission limit in Condition D.2.3 shall limit the CO emissions from the entire source to less than 100 tons per year, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not applicable.

(g) The SO2 emissions from the four DDGS dryers shall not exceed 0.45 pound per ton of DDGS dried, and the throughput shall be limited to a total of ~~356,880~~ **417,411** tons of DDGS dried per twelve consecutive month period with compliance determined at the end of each month. Compliance with this limit shall limit the SO_2 emissions from the entire source to less than 100 tons per year, which renders the requirements of 326 IAC 2-2, PSD and 326 IAC 2-7, Part 70 not applicable.

(h) The following conditions shall apply to the biomethanator and the enclosed flare:

(1) The operation of the biomethanator flare shall be limited to ~~500~~ **1000** operating hours per twelve (12) consecutive month period with compliance determined at the end of each month.

(2) The biomethanator flare and the enclosed flare shall be designed as a smokeless flares.

(3) Both flares shall have a soot concentration value of 0 mg per liter.

Compliance with this condition shall render the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not applicable.

(i) Pursuant to 326 IAC 2-8-4 (FESOP), and to render the requirements of 326 IAC 2-4.1-(New Source Toxics Control) not applicable, the HAP emissions from the following emission units shall be limited as follows:

(1) DDGS drying controlled by the RTOs (C-10 and C-11) shall not exceed ~~0.46~~ **0.80** pounds Acetaldehyde per hour.

(2) Fermentation process controlled by the scrubber (S-40) shall not exceed 1.05 pounds Acetaldehyde per hour.

Compliance with these limits in combination with the single HAP and total HAPs emission limits for other units, limits the single HAP emissions and total HAPs emissions from the entire source to less than ten (10) tons per year and twenty five (25) tons per year, respectively. Therefore, the requirements of 326 IAC 2-7 (Part 70 Program) are not applicable.

D.1.6 Particulate Emission Limitations [326 IAC 6-3-2(e)]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from each of the following processes shall not exceed the pound per hour limits as follows:

Process /Facility	Process Weight Rate (tons/hr)	Particulate Emissions (lbs/hr)
Hammermills **and Transfer to Ethanol Day Bin**	~~125.6~~ **156.96**	~~53.6~~ **55.92**
DDGS Cooling Drum	~~40.7~~ **47.65**	~~42.6~~ **44.13**
DDGS Storage/Loadout	~~40.7~~ **47.65**	~~42.6~~ **44.13**
DDGS Drying	~~40.7~~ **47.65**	~~42.6~~ **44.13**

The pound per hour limitations shall be calculated using the following equation:

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 is pounds per hour and
P = process weight rate in tons per hour

…

D.1.10 Particulate Matter and Particulate Matter Less Than Ten Microns (PM10) Control

In order to comply with Conditions D.1.4 (a) and (b), and D.1.6 the baghouses ~~and RTOs~~ shall be in operation at all times the Hammermills, DDGS cooling drum, DDGS storage/loadout, distillation, evaporation, and DDGS dryers are in operation.

...

D.1.12 Testing Requirements [326 IAC 2-2] [326 IAC 2-8-5(a)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Conditions D.1.4**(a)(b)(d)(e)(f)(g)(h)(i)**, D.1.5, and D.1.6, the Permittee shall perform PM, PM10, VOC, CO, NOx, SO_2, and Acetaldehyde stack tests. PM/PM10 **testing shall include emission rates.** ~~and~~ VOC testing shall include emission rates, and overall control efficiency (capture and destruction/absorption efficiencies) of the RTOs/heat recovery steam generators, scrubber, **and** enclosed flare~~, and baghouses~~. These tests shall be conducted within 60 days after achieving the maximum capacity, but not later than 180 days after initial startup, utilizing methods as approved by the Commissioner. PM-10 includes filterable and condensible PM-10. The PM, PM10, VOC, CO, NOx, SO_2,

and Acetaldehyde 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 Section C - Performance Testing.

…

D.1.14 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust from stacks S-30**A through S-30D**, **S-30A, S-20B, S-70, and** S-90~~, and S-10~~ shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

...

D.1.16 Recuperative Thermal Oxidizer Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the RTOs (C10 and C11) for measuring operating temperature. For the purpose of this condition, continuous means no less than once per minute. The output of this system shall be recorded as a 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 oxidizer at or above the 3-hour average temperature of ~~1,450°F~~ **1,400°F**.

...

D.1.23 Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 12] [40 CFR 60, Subpart Db]

(a) Pursuant to 326 IAC 2-8-4(3), the Permittee shall record and maintain records of the following information:

(1) To document compliance with Condition D.1.14, the Permittee shall maintain records of daily visible emission notations of the stacks S30**A through S-30D**, **S-20A, S-20B, S-70, and** S-90, ~~and S-10~~. **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 date).**

(2) To document compliance with Condition D.1.16, the Permittee shall maintain continuous temperature records for the Recuperative Thermal Oxidizers (C-10 and C-11) and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(3) To document compliance with Condition D.1.15, the Permittee shall maintain daily records of the duct pressure or fan amperage for the RTOs (C-10 and C-11). **The Permittee shall include in its daily record when a duct pressure or fan**

amperage reading is not taken and the reason for the lack of duct pressure or fan amperage reading (e.g. the process did not operate that date).

(4) To document compliance with Condition D.1.17, the Permittee shall maintain records of the pressure drop across the baghouses used in conjunction with the hammermills, scalpers, DDGS cooling drum, and DDGS loadout. **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 date).**

(b) Pursuant to 40 CFR 60.49b(d), the Permittee shall record and maintain records of the amounts of each fuel combusted by the recuperative thermal oxidizers/heat recovery steam generators (C-10 and C-11) during each day and calculate the annual capacity factor individually for natural gas for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

(c) Pursuant to 40 CFR 60.49b(g), the Permittee shall maintain records of the following information for each recuperative thermal oxidizer/heat recovery steam generating unit operating day:

(1) Calendar date.

(2) The average hourly nitrogen oxides emission rates (expressed as NO_2) (ng/J or lb/million Btu heat input) measured or predicted.

(3) The 30-day average nitrogen oxides emission rates (ng/J or lb/million Btu heat input) calculated at the end of each recuperative thermal oxidizer/heat recovery steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.

(4) Identification of the recuperative thermal oxidizers/heat recovery steam generating units operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under 40 CFR 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.

(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.

(6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.

(7) Identification of “F” factor used for calculations, method of determination, and type of fuel combusted.

(8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.

(9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.

(d) To document compliance with D.1.4~~(g)~~ **(h)**, the Permittee shall maintain records of the number of hours that the biomethanator operates each month.

(e) To document compliance with D.1.4~~(c)~~ **(d)**, the Permittee shall maintain monthly records of the amount of natural gas and biogas used.

(f) To document compliance with D.1.4(e)(3), the Permittee shall maintain monthly records of the amount of denatured ethanol loaded out from both truck loading rack and railcar loading rack combined.

(g) To document compliance with D.1.4(e)(3), the Permittee shall maintain records of the number of hours that the truck loading rack and railcar loading rack operate each month.

(h) To document compliance with D.1.4(c), the Permittee shall maintain records of the circulation rates, total dissolved solids (TDS), and drift rates.

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

…

SECTION D.2 FACILITY OPERATION CONDITIONS

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

(b) Grain Terminal with a maximum capacity of ~~1,172,000~~ **1,498,000** tons of grains per year:

(1) One (1) truck dump hopper, constructed in 1974, enclosed on 2 sides with particulate emissions controlled by a baghouse, identified as # 1;

(2) One (1) rail/truck dump hopper, constructed in 1974, enclosed on 2 sides with particulate emissions controlled by a baghouse, identified as # 1;

(3) One (1) rail car/truck loading site, constructed in 1974, with no emission controls;

(4) One (1) Berico natural gas-fired dryer, constructed in 1974, with a maximum throughput capacity of 3,000 bushel per hour and a maximum heat input capacity of 16.5 million British thermal units (MMBtu) per hour with screen house enclosure;

(5) One (1) grain cleaner, constructed in 1974, rated at 15,000 bushels per hour with particulate emissions controlled by a baghouse, identified as # 2;

(6) Four million (4,000,000) bushel grain storage capacity with no emission controls;

(7) Four hundred thousand (400,000) bushel grain storage capacity with particulate emissions controlled by a baghouse, identified as # 2;

(8) Two (2) grain legs, constructed in 1974, with a maximum capacity of 7,500 bushel per hour, with particulate emissions controlled by a baghouse, identified as # 2; and

(9) One (1) hopper bottom truck grain receiving process, constructed in 2002, consisting of one (1) enclosed drag conveyor with a maximum design throughput of ~~1,000,000~~ **7,000,000** bushels of corn ~~and soybeans~~ per year, with particulate emissions controlled by

one (1) conveyor enclosure.

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

…

D.2.3 PSD Minor Limits and FESOP Limits [326 IAC 2-2] [326 IAC 2-8]

(a) The PM emissions from the following emission units shall not exceed the following emission limits:

Emission Unit/Facility	Control	PM Emission Limit (lbs/hr)
Grain Elevator -Receiving	Baghouse #1	~~0.013~~ **1.0**
Grain Drying	Screen Enclosure	~~0.24~~ **4.9**
Grain **Elevator** Internal Handling	Baghouse #2	~~0.043~~ **0.11**

Compliance with these PM limits in combination with the PM emission limits in Condition D.1.4, limits the PM emissions from the entire source to less than 100 tons per year, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) not applicable.

(b) The PM10 emissions from the following emission units shall be limited as follows:

Emission Unit/Facility	Control	PM10 Emission Limit (lbs/hr)
Grain Elevator -Receiving	Baghouse #1	~~0.013~~ **0.31**
Grain Drying	Screen Enclosue	~~0.24~~ **1.22**
Grain **Elevator** Internal Handling	Baghouse #2	~~0.043~~ **0.06**

Compliance with these PM10 limits in combination with the PM10 emission limits in Condition D.1.4, limits the PM10 emissions from the entire source to less than 100 tons per year, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not applicable.

(c) The grain throughput to the grain elevator shall be limited as follows:

(1) Straight truck controlled pit shall be limited to ~~2,000,000~~ **3,000,000** bushels per twelve consecutive month period with compliance determined at the end of each month.

(2) Hopper truck and railcar controled pit shall be limited to ~~37,285,716~~ **43,500,000** bushels per twelve consecutive month period with compliance determined at the end of each month.

(3) Hopper truck uncontrolled pit shall be limited to ~~1,000,000~~ **7,000,000** bushels per twelve consecutive month period with compliance determined at the end of each month.

Compliance with these limits in combination with PM and PM10 limits in Condition D.1.4, limits the PM and PM10 emissions from the entire source to less than 100 tons per year each, which renders the requirements of 326 IAC 2-2, Prevention of Significant

Deterioration (PSD) and 326 IAC 2-7, Part 70 not applicable.

(d) The NOx emissions from the 16.5 million British thermal units per hour (MMBtu/hr) grain dryer shall not exceed 100 pounds per million cubic feet (lb/MMCF) and the CO emissions shall not exceed 84 pounds per million cubic feet (lb/MMCF) when using natural gas. Natural gas fuel usage shall be limited to ~~42,900,000~~ **45,000,000** cubic feet per twelve consecutive month period with compliance determined at the end of each month.

The 16.5 million British thermal units per hour (MMBtu/hr) grain dryer shall only combust natural gas as fuel.

Compliance with these limits in combination with the limit in Condition D.1.4, limits the NOx and CO emissions from the entire source to less than 100 tons per year for each pollutant, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 not be applicable.

D.2.4 Particulate Emission Limits [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the PM emission from the following emission units shall be limited as follows:

(1) The grain elevator receiving shall not exceed 56.8 pounds per hour when operating at a process weight rate of 171.0 tons per hour.

~~(1)~~**(2)** The Berico grain dryer shall not exceed 49.65 pounds per hour when operating at a process weight rate of 84 tons per hour.

~~(2)~~**(3)** The grain elevator~~, including the~~ internal ~~operations~~ **handling** shall not exceed ~~54.2~~ **56.8** pounds per hour at a process weight rate of ~~133.7~~ **171.0** tons per hour

The pound per hour limitations shall be calculated using the following equation:

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 is pounds per hour and
P = process weight rate in tons per hour

…

~~D.2.7 Testing Requirements [326 IAC 2-2] [326 IAC 2-8-5(a)] [326 IAC 2-1.1-11]~~

~~In order to demonstrate compliance with Conditions D.2.3, and D.2.4, the Permittee shall perform PM and PM10 stack tests. PM/PM0 tests shall include emission rates, and control efficiency of the baghouses. These tests shall be conducted within 60 days after achieving the maximum capacity, but not later than 180 days after initial startup, utilizing methods as approved by the Commissioner. PM-10 includes filterable and condensible PM-10. The PM and PM10 tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing~~

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

D.2.~~8~~ **7** Visible Emissions Notations

(a) Visible emission notations of the stack exhaust from stack #1 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or

expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

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

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

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

D.2.~~9~~ **8** Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with the grain elevator at least once per day when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.2.~~10~~**9** 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 shutdown 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 emissions unit. 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 baghouses 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 Requirements

D.2.~~11~~**10** Record Keeping Requirements

(a) To document compliance with Condition D.2.~~8~~**7**, the Permittee shall maintain records of all daily visible emission notations of the stack #1. **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 date).**

(b) To document compliance with Condition D.2.~~9~~**8**, the Permittee shall maintain records of the pressure drop across the baghouses used in conjunction with the grain elevator. **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 date).**

(c) To document compliance with Condition D.2.3(c), the Permittee shall maintain records of the grain throughput to the elevator.

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

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.2.~~12~~**11** Reporting Requirements

A monthly summary of the information to document compliance with Condition D.2.3 shall be submitted quarterly to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1)

....

D.3.1 Prevention of Significant Deterioration (PSD) and Part 70 Operating Permit [326 IAC 2-2] [326 IAC 2-8]

(a) The NOx emissions from the 300 horsepower (Hp) diesel-fired emergency pump shall be limited to ~~8.92~~ **9.30** pounds per hour and the operation of this pump shall be limited to ~~500~~ **300** operating hours per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The sulfur content of the diesel fuel used by the emergency pump shall be limited to a maximum of 0.5%.

Compliance with these limits in combination with the NOx limits in Conditions D.1.4 and D.2.3, limit the NOx emissions from the entire source to less than 100 tons per year, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-7, Part 70 Operating Permit not applicable.

…

SECTION D.4 FACILITY CONDITIONS

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

~~(16)~~**(15)**One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-2 that will store 190 proof ethanol with a capacity of ~~225,000~~ **188,000** gallons.

~~(17)~~**(16)**One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-3 that will store 200 proof ethanol with a capacity of ~~225,000~~ **188,000** gallons.

~~(18)~~**(17)**One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-4 that will store natural gasoline with a capacity of ~~91,000~~ **235,000** gallons.

~~(19)~~**(18)**One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-5 that will store denatured ethanol with a capacity of ~~2,114,000~~ **2,200,000** gallons.

~~(20)~~**(19)**One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-6 that will store denatured ethanol with a capacity of ~~750,000~~ **740,000** gallons.

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

…

SECTION E.1 FACILITY OPERATION CONDITIONS

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

~~(16)~~**(15)**One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-2 that will store 190 proof ethanol with a capacity of ~~225,000~~ **188,000** gallons.

~~(17)~~**(16)**One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-3 that will store 200 proof ethanol with a capacity of ~~225,000~~ **188,000** gallons.

~~(18)~~**(17)**One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-4 that will store natural gasoline with a capacity of ~~91,000~~ **235,000** gallons.

~~(19)~~**(18)**One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-5 that will store denatured ethanol with a capacity of ~~2,114,000~~ **2,200,000** gallons.

~~(20)~~**(19)**One (1) fixed roof tank equipped with an internal floating roof, identified as Tank-6 that will store denatured ethanol with a capacity of ~~750,000~~ **740,000** gallons.

(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

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

Ethanol Production Plant:

(a) Ethanol Production Plant with a maximum production rate of ~~110,000,000~~ **137,500,000** gallons of ethanol per year:

(1) One (1) day bin with a maximum throughput of 7,500 bushels per hour**, with grain transfer to the day bin controlled by baghouse S-20A.**

~~(2) One (1) grain scalper, with a maximum throughput of 1,100,000 tons per year controlled by baghouse S-30.~~

(~~3~~)**(2)** Four (4) hammermills each with a maximum throughput of 100 tons per hour controlled by baghouse**s** S-30**A through S-30D**. **Grain transfer from the day bin to the hammermills is controlled by Baghouse S-20B.**

~~(4)~~**(3)** One (1) cook water tank with a capacity of 374,000 gallons.

~~(5)~~**(4)** One (1) slurry mixer receiver (blend) tank with a capacity of 470 gallons. The emissions from this tank will be exhausted indirectly to the two Recuperative Thermal Oxidizers (RTOs) (C-10 and C-11) through the slurry tanks.

~~(6)~~**(5)** Two (2) slurry tanks each with a capacity of 25,000 gallons. The emissions from these tanks will be exhausted to the two RTOs (C-10 and C-11).

~~(7)~~**(6)** Two (2) cook tubes each with a capacity of ~~5,200~~ **5,000** gallons.

~~(8)~~**(7)** One flash tank with a capacity of 4,500 gallons.

~~(9)~~**(8)** One syrup tank with a capacity of 180,000 gallons.

~~(10)~~**(9)** One fermentation process, with a maximum throughput of 13,000 gallons per hour, controlled by CO_2 scrubber S-40, which includes:

(A) Seven (7) fermenters, each with a capacity of 807,000 gallons.
(B) Two (2) liquefaction tanks each with a capacity of 128,400 gallons.
(C) Two (2) yeast tanks each with a capacity of ~~13,500~~ **20,000** gallons. The emissions from these tanks will be exhausted to the two RTOs (C-10 and C-11).

~~(11)~~**(10)** One distillation and evaporation process controlled by the two RTOs (C-10 and C-11) with a maximum throughput of ~~1,100,000~~ **1,375,000** tons per year consisting of the following:

(A) One (1) beerwell with a capacity of 1,080,000 gallons.
(B) One beer column.
(C) One side stripper.
(D) Six (6) molecular sieve condensers.
(E) Six (6) centrifuges.
(F) Two (2) centrate tanks with a capacity of 1,690 gallons each.
(G) Eight (8) evaporators.
(H) One (1) **thin** stillage tank with a capacity of 374,000 gallons.
(I) One (1) whole stillage tank with a capacity of 180,000 gallons.

~~(12)~~**(11)** One (1) Dried Distillers Grain and Solubles (DDGS) drying process with a maximum throughput of ~~43~~ **47.65** tons per hour, controlled by the two RTOs (C-10 and C-11). This process consists of the following:

(B) Four (4) DDGS dryers, identified as Dryers A, B, C, and D, each dryer has a heat input capacity of 45 MMBtu/hr or a total heat input capacity of 180 MMBtu/hr, with a total drying rate of ~~356,880~~ **417,411** tons of DDGS per year.
(B) One (1) DDGS cooling drum with a maximum throughput of ~~356,880~~ **417,411** tons of DDGS per year, controlled by ~~a baghouse~~ **two baghouses discharging**

though a common exhaust point, identified as S-70.

(C) One (1) four cell cooling tower with a circulation rate of 3,000,000 gallons per hour.

(D) One DDGS truck/rail loadout with a maximum capacity of 500 tons per hour, controlled by a baghouse, identified as S-90.

~~(13)~~**(12)** Ethanol loading racks with a total maximum throughput of ~~110,000,000~~ **137,500,000** gallons per year of ethanol, consisting of the following:

(A) One (1) ethanol truck loading rack, utilizing submerged loading only. The truck loading process is controlled by an enclosed flare with a heat input capacity of ~~6.4~~ **12.4** million British thermal units per hour (MMBtu/hr).

(B) One (1) ethanol railcar loading rack, utilizing submerged loading only. The railcar loading process is controlled by an enclosed flare with a heat input capacity of ~~6.4~~ **12.4** MMBtu/hr.

~~(14)~~**(13)** Two (2) Recuperative Thermal Oxidizers (RTOs)/heat recovery steam generators, identified as C-10 and C-11, using natural gas and process waste gases, each with a maximum heat input capacity of 122 MMBtu/hr.

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

…

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

FESOP Quarterly Report

Source Name:	The Andersons Clymers Ethanol, LLC
Source Address:	County Roads 300S and 350 W, Logansport, IN 46947
Mailing Address:	P.O. Box 119, Maumee, OH 43537
NSR/FESOP No.:	017-21536-00023
Facility:	RTOs & DDGS, Grain Dryer, and Emergency Pump
Parameter:	NOx Emissions
Limit:	RTOs - 51 lb/MMCF and 2,137.4 MMCF of natural gas per 12 months
	Grain Dryer - 100 lbs/MMCF and ~~42,900,000~~ **45,000,000** cubic feet natural gas per 12 months
	300 HP Emergency Pump – ~~500~~ **300** operating hours per 12 months
	DDGS Dryers - 51 lbs/MMCF and 1,550.5 MMCF of natural gas per 12 months When using biogas as fuel every 1.17 cubic feet is equivalent to 1 cubic foot of natural gas.

…

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

FESOP Quarterly Report

Source Name:	The Andersons Clymers Ethanol, LLC
Source Address:	County Roads 300S and 350 W, Logansport, IN 46947
Mailing Address:	P.O. Box 119, Maumee, OH 43537

NSR/FESOP No.: 017-21536-00023
Facility: Loading Racks (Trucks and Railcars Combined)
Parameter: VOC Emissions
Limit: ~~110,000,000~~ **137,500,000** ~~million~~ gallons per twelve month period.
…

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

FESOP Quarterly Report

Source Name: The Andersons Clymers Ethanol, LLC
Source Address: County Roads 300S and 350 W, Logansport, IN 46947
Mailing Address: P.O. Box 119, Maumee, OH 43537
NSR/FESOP No.: 017-21536-00023
Facility: Loading Racks (Truck and Railcars Combined)
Parameter: VOC Emissions
Limit: ~~1690~~ **3000** operating hours per twelve month period.
...

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

FESOP Quarterly Report

Source Name: The Andersons Clymers Ethanol, LLC
Source Address: County Roads 300S and 350 W, Logansport, IN 46947
Mailing Address: P.O. Box 119, Maumee, OH 43537
NSR/FESOP No.: 017-21536-00023
Facility: RTOs & DDGS
Parameter: SO_2 Emissions
Limit: 0.45 lb/ton DDGS dried and
DDGS Dried at ~~356,880~~ **417,411** tons per twelve month period.
…

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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
FESOP Quarterly Report

Source Name: The Andersons Clymers Ethanol, LLC
Source Address: County Roads 300S and 350 W, Logansport, IN 46947
Mailing Address: County Roads 300S and 350 W, Logansport, IN 46947
NSR/FESOP No.: 017-21536-00023
Facility: Grain Dryer
Parameter: CO Emissions
Limit: 84 pounds of CO per MMCF and
~~42,900,000~~ **45,000,000** cubic feet of natural gas per twelve month period.
…

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name:	The Andersons Clymers Ethanol, LLC
Source Address:	County Roads 300S and 350 W, Logansport, IN 46947
Mailing Address:	P.O. Box 119, Maumee, OH 43537
NSR/FESOP No.:	017-21536-00023
Facility:	Grain Elevator
Parameter:	PM and PM10 Emissions
Limits:	Straight truck controlled pit – ~~2,000,000~~ **3,000,000** bushels per twelve month period. Hopper truck and railcar controlled pit – ~~37,285,716~~ **43,500,000** bushels per twelve month period. Hopper truck uncontrolled pit – ~~1,000,000~~ **7,000,000** bushels per twelve month period.

…

(b) Upon further review, IDEM, OAQ has decided to make the following changes to the permit. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

1. IDEM, OAQ has decided to remove the information regarding the Authorized Individual from Section A.1 of the permit. Condition A.1 is revised as follows:

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a grain terminal and an ethanol production plant.

~~Authorized Individual:~~	~~Stacey Schmidt, Director - Hazard Management & Engineering~~
Source Address:	County Road 300 S and 350 W, Logansport, IN 46947
Mailing Address:	P.O. B ox 119, Maumee, Ohio 43537
General Source Phone:	(419) 891-2957
SIC Code:	2869, 5153
Source Location Status:	Cass Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD rules Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

2. Condition A.6 - Prior Permits Superseded has been removed from Section A and incorporated into the B Section as condition B.6 - Prior Permits Superseded.

3. All references to IDEM, OAQ's mailing address have been revised as follows:

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

4. All occurrences of the Compliance Data Branch telephone and facsimile numbers have been revised from 317-233-5674 and 317-233-5967 to 317-233-0178 and 317-233-6865.

5. The phone number for the OAQ, Billing, Licensing, and Training Section (BLT) is revised from 317-233-4320 to 317-233-4230.

6. In order to avoid duplication of requirements which may be included in D sections,

Condition C.7 has been removed from the permit.

7. Condition C.8(g) has been revised to replace "Accredited" with "Licensed" and to remove the statement that the requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable, since all conditions in a FESOP are federally enforceable.

8. On February 20, 2007, IDEM, OAQ adopted a new rule (326 IAC 8-5-6) for fuel grade ethanol production at dry mills. Since the facility is modifying 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; the fermentation process, distillation process, DDGS dryers, and ethanol loadout operation at this source are subject to the requirements in 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills). Because the fermentation process, distillation process, DDGS dryers, and ethanol loadout operations are subject to the requirements in 326 IAC 8-5-6, these operations are not subject to the requirements of 326 IAC 8-1-6 (BACT).

D.1.5 VOC Emissions ~~General Reduction Requirements~~ [326 IAC 8-~~1~~**5**-6]

Pursuant to 326 IAC 8-~~1~~**5**-6, the ~~Best Available Control Technology (BACT) for the following emission units shall be as follows~~ **Permittee shall comply with the following:**

(a) Fermentation Process

(1) The VOC emissions from the fermentation process shall be controlled by wet scrubber S-40.

~~(2) The VOC emissions from the fermentation process wet scrubber S-40 shall be limited to 7.5 pounds per hour.~~

~~(3)~~**(2)** The overall VOC control efficiency, which includes capture and absorption efficiencies, for the wet scrubber S-40 shall be at least 98%, or the VOC outlet concentration shall not exceed 20 ppmv.

(b) Dried Distillers Grain and Solubles (DDGS) Dryers

(1) The VOC emissions from the DDGS Dryers shall be controlled by the two (2) Recuperative Thermal Oxidizers (C-10 & C-11).

~~(2) The VOC emissions from the two Recuperative Thermal Oxidizers (C-10 & C-11) shall not exceed 8.15 pounds per hour.~~

~~(3)~~**(2)** The overall control efficiency, which includes capture and destruction efficiencies, for each of the two Recuperative Thermal Oxidizers (C-10 & C-11) shall be at least 98%, or the VOC outlet concentration shall not exceed 10 ppmv.

(c) Ethanol Loading Rack

(1) The VOC emissions from the ethanol loadout shall be collected and controlled by a flare when loading denatured ethanol.

(2) The overall efficiency for the enclosed flare (including the capture efficiency and destruction efficiency) shall be at least 98%.

~~(3) The VOC emissions from the flare for both truck and rail shall not exceed 2.03 lbs/hr.~~

(d) Distillation and Evaporation

(1) The VOC emissions from the distillation and evaporation process shall be controlled by the two RTOs (C-10 and C-11).

(2) The overall control efficiency, which includes capture and destruction efficiencies, for each of the two Recuperative Thermal Oxidizers (C-10 & C-11) shall be at least 98%, or the VOC outlet concentration shall not exceed 10 ppmv.

~~(3) The VOC emissions from the two RTOs (C-10 and C-11) shall not exceed 8.15 lbs/hr.~~

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on March 6, 2008.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Revision No. 017-26224-00023. The staff recommends to the Commissioner that this FESOP Significant Revision be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Jason R. Krawczyk 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) 234-5175 or toll free at 1-800-451-6027 extension 4-5175.

(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

SUMMARY OF EMISSIONS

Company Name: The Andersons Clymers Ethanol, LLC
Address: County Roads 300S and 350 W, Logansport, IN 46947
Permit: 017-26224-00023
Reviewer: Jason R. Krawczyk
Date: May 14, 2008

	GRAIN TERMINAL							ETHANOL PLANT															
U N C O N T R O L L E D E M I S S I O N S (TONS/YR)																							
Pollutant	Grain Elevator				Grain Dryer			Grain Handling from existing elevator	DDGS	DDGS	DDGS	DDGS	Cooling	Paved	Valves	Fermentation	Loading	Methanator	RTOs Combustion, Distillation/	Emergency	Storage Tanks	Insignificant Process Tanks	TOTAL PTE
	Receiving		Internal Handling	Storage Silo	Grain Dryer	Grain Dryer	Hammermill		Cooling Drum	Loadout	Storage/Handling	Loadout	Tower	Roads (Fug.)	Flanges (Fug.)		Rack/	Flare	Evaporation/ DDGS Drying and	Pump			
	Controlled Pit	Uncontrolled Pit				Combustion					(Fugitive)	(Fugitive)					Flare		Combustion				
PM	28.88	3.43	45.69	19.47	16.02	0.55	82.50	109.22	580.21	204.78	12.73	0.17	13.70	26.41		17	0.003	0.0008	417.41	2.89			1581.10
PM10	7.23	0.76	25.47	4.72	4.00	0.55	41.25	109.22	580.21	204.78	7.10	0.69	13.70	5.22		38	0.003	0.003	417.41	2.89			1463.35
VOC						0.40			15.44						56.27	2,063	291.97	0.17	2087.06	3.30	2.73	0.649	4520.49
NOx						7.23											3.74	0.26	94.71	40.73			146.67
SO2						0.04											0.0003	0.0003	95.03	2.69			97.77
CO						6.07											20.13	1.22	110.61	8.78			146.82
Single HAP									0.63						8.72	230.31			116.88				356.54
Combined HAPs									1.19						9.83	319.52	2.33		221.81				554.68
C O N T R O L L E D / L I M I T E D E M I S S I O N S (TONS/YR)																							
PM	0.32	3.43	0.50	0.21	4.24	0.17	8.25	1.20	6.38	2.25	2.55	0.01	13.70	26.41		0.34	0.003	0.0008	29.22	0.10			70.33
PM10	0.08	0.76	0.28	0.05	1.06	0.17	4.13	1.20	6.38	2.25	1.42	0.03	13.70	5.22		0.76	0.003	0.003	29.22	0.10			60.16
VOC						0.12			15.44						9.74	41.25	6.81	0.17	20.87	0.11	2.73	0.649	88.16
NOx						2.25											1.31	0.26	94.71	1.40			99.93
SO2						0.01											0.0003	0.0003	95.03	0.09			95.14
CO						1.89											6.92	1.22	89.74	0.30			100.07
Single HAP									0.63						1.51	4.61			3.51				8.74
Combined HAPs									1.19						1.70	6.39	2.33		10.06				19.97

Appendix A: Emissions Calculations
Existing Elevator PTE
Grain Terminal Grain Dryer

Company Name: The Andersons Clymers Ethanol, LLC
Address: County Roads 300S and 350 W, Logansport,
Permit: 017-26224-00023
Reviewer: Jason R. Krawczyk
Date: May 14, 2008

RECEIVING (baghouse controls 2 pits, 1 pit for straight truck is uncontrollec

STRAIGHT TRUCK	3,000,000	BUSHELS	(assume corn at 56 lb/bushel)		
(controlled pit)	168000000	POUNDS			
	84000	TONS/YR			
	84000	TONS/YR x	0.059 # PM10/TON	0.18 # PM/TON	
	2.48	TONS PM10/YR (UNCONTROLLED)			
	7.56	TONS PM/YR (UNCONTROLLED)			
	4956	POUNDS 10PM			
	15120	POUNDS PM			
	54.52	POUNDS PM10 x 0.011 CONTROL FACTOR			
	166.32	POUNDS PM x 0.011 CONTROL FACTOR			
	0.03	TONS PM10 (CONTROLLED)			
	0.08	TONS PM (CONTROLLED)			
HOPPER TRUCK	43,500,000	BUSHELS	(assume corn at 56 lb/bushel)		
and/or RAILCAR	2436000000	POUNDS			
(controlled pit)	1218000	TONS/YR			
	1218000	TONS/YR x	0.0078 # PM10/TON	0.035 # PM/TON	
	4.75	TONS PM10/YR (UNCONTROLLED)			
	21.32	TONS PM/YR (UNCONTROLLED)			
	9500.40	POUNDS PM10			
	42630.00	POUNDS PM			
	104.50	POUNDS PM10 x 0.011 CONTROL FACTOR			
	468.93	POUNDS PM x 0.011 CONTROL FACTOR			0.84
	0.05	TONS PM10/YR (C0NTROLLED)			3.75
	0.23	TONS PM/YR (C0NTROLLED)			
Hopper Truck	7,000,000	BUSHELS	(assume corn at 56 lb/bushel)		
(uncontrolled pit)	392,000,000	POUNDS			
	196000	TONS			
	196000	TONS x	0.0078 # PM10/TON	0.035 # PM/TON	
	0.76	TONS PM10/YR (UNCONTROLLED)			
	3.43	TONS PM/YR (UNCONTROLLED)			
INTERNAL HANDLING	53,500,000	BUSHELS	(assume 56 lb/bushel)		
	2996000000	POUNDS			
	1498000	TONS			
	1498000	TONS x	0.034 # PM10/TON	0.061 # PM/TON	
	25.47	TONS PM10/YR (UNCONTROLLED)			
	45.69	TONS PM/YR (UNCONTROLLED)			
	50932.00	POUNDS PM10			
	91378.00	POUNDS PM			
	560.25	POUNDS PM10 x 0.011 CONTROL FACTOR			
	1005.16	POUNDS PM x 0.011 CONTROL FACTOR			
	0.28	TONS PM10/YR			
	0.50	TONS PM/YR			
STORAGE SILO	53,500,000	BUSHELS	(assume corn at 56 lb/bushel)		
	2996000000	POUNDS			
	1498000	TONS			
	1498000	TONS x	0.0063 # PM10/TON	0.026 # PM/TON	
	4.72	TONS PM10/YR (UNCONTROLLED)			
	19.47	TONS/PM/YR (UNCONTROLLED)			
	9437.40	POUNDS PM10			
	38948.00	POUNDS PM			
	103.81	POUNDS PM10 x 0.011 CONTROL FACTOR			
	428.43	POUNDS PM x 0.011 CONTROL FACTOR			
	0.05	TONS PM10/YR			
	0.21	TONS PM/YR			
DRYING (Process Emissions)	5,200,000	BUSHELS	(assume 56 lb/bushel)		
(Column Dryer)	291200000	POUNDS			
at 3000 bushels/hr rate	145600	TONS			
	145600	TONS x	0.055 # PM10/TON	0.22 #PM/TON	
	4.00	TONS PM10/YR (UNCONTROLLED)			
	16.02	TONS PM/YR (UNCONTROLLED)			
	8008.00	POUNDS PM10 x 0.265 CONTROL FACTOR			
	32032.00	POUNDS PM x 0.265 CONTROL FACTOR			
	2122.12	POUNDS PM10			
	8488.48	POUNDS PM			
	1.06	TONS PM10/YR			
	4.24	TONS PM/YR			

NOTES: AP-42 Emission Factors were used to make calculations
Control factors were provided by the manufacturer.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
Grain Terminal Grain Dryer

Company Name: The Andersons Clymers Ethanol, LLC
Address: County Roads 300S and 350 W, Logansport, Indiana 46947
Permit: 017-26224-00023
Reviewer: Jason R. Krawczyk
Date: May 14, 2008

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
16.5	144.5
Grain Dryer	

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.55	0.55	0.04	7.23	0.40	6.07

PM/PM10 emission factor is filterable and condensable combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
(located at the grain terminal plant)

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

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Natural Gas Combustion Only
Grain Terminal Grain Dryer

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Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	
16.5	**45.0**	**Natural Gas Usage Limit**
Grain Dryer		

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.17	0.17	0.01	2.25	0.124	1.89

PM/PM10 emission factor is filterable and condensable combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
(located at the grain terminal plant)

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

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Ethanol Plant Various Handling Processes

Emission Point Description	Processing Rate ton/year	PM Emission Factor (lb/ton)	PM10 Emission Factor (lb/ton)	Emission Factor Source	Emission Control System Type	Capture Efficiency %	Control Efficiency %	PM Uncontrolled Emissions (tons/yr)	PM10 Uncontrolled Emissions (tons/yr)	PM Controlled Emissions (lbs/hr)	PM Controlled Emissions (tons/yr)	PM10 Controlled Emissions (lbs/hr)	PM10 Controlled Emissions (tons/yr)
Hammermilling	1,375,000	0.012	0.006	AP-42	S30	100%	90%	82.50	41.25	1.88	8.25	0.94	4.13
DDGS Storage / Handling (Fugitive)	417,411	0.061	0.034	AP-42	S90	100%	80%	12.73	7.10	0.58	2.55	0.32	1.42
DDGS Loadout (Fugitive)	417,411	0.0008	0.0033	AP-42	S90	100%	95%	0.17	0.69	0.00	0.01	0.01	0.03

Emission Point Description	Vent/ Stack ID	Baghouse #1 & #2 Parameters(1) Temp. ^0F	Flowrate ACFM	Flowrate SCFM	PM/PM_{10} Loading (gr/scf)	Uncontrolled PTE Emissions PM_{10} lb/hr	PM_{10} TPY(2)	PM lb/hr	PM TPY(2)	Controlled PTE Emissions PM lb/hr	PM TPY(2)	PM10 lb/hr	PM10 TPY(2)
Grain Transfer to Day Bin	S20A	70	1,400	1,400	0.01	10.91	47.78	10.91	47.78	0.12	0.53	0.12	0.53
Day Bin and Transfer to Hammermill	S20B	70	1,800	1,800	0.01	14.03	61.43	14.03	61.43	0.15	0.68	0.15	0.68
DDGS Cooling Drum	S70	70	17,000	17,000	0.01	132.47	580.21	132.47	580.21	1.46	6.38	1.46	6.38
DDGS Loadout	S90	70	6,000	6,000	0.01	46.75	204.78	46.75	204.78	0.51	2.25	0.51	2.25

Notes:

(1) Baghouse design information provided by the process/design engineers for the plant. Note that the exhaust flowrate for thecooling drum bypass is a fraction of the total exhaust flowrate for the cooling drum. The remainder of the cooling drum exhaust is diverted to the thermal oxidizers for combustion air augmentation. The total exhaust from the cooling drum is 50,000 cfm.

(2) Based on 8,760 hours per year

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DRIED DISTILLER GRAINS (DDGS) COOLING DRUM EMISSIONS				
OPERATION	POLLUTANT	THROUGPUT DDGS (tons/yr)	EMISSION FACTOR (lb/ton)	UNCONTROLLED EMISSIONS (tons/yr)
DDGS Cooling Drum				
	VOC	417,411	0.074	15.44
	Acetylaldehyde	417,411	0.003	0.63
	Acrolein	417,411	0.0013	0.27
	Methanol	417,411	0.0007	0.15
	Formaldehyde	417,411	0.0007	0.15
	Total HAPs			**1.19**

COOLING TOWER EMISSIONS						
OPERATION	CIRCULATION RATE (gal/hr)	TDS CONTENT (avg ppm)	DRIFT LOSS %	PM EMISSIONS (tons/yr)	PM10 EMISSIONS (tons/yr)	VOC EMISSIONS (tons/yr)
Cooling Tower (4 cells)	3,000,000	2,500	0.005%	13.70	13.70	0

Mass balance based on circulation rates, total dissolve solids (TDS), Drift Loss
Water density - 8.34 lb/gal
Based on manufacturer's guarantee of 0.005% drift loss
Assume PM = PM10
Any increase in the TDS beyond 2500 ppm will result in increase PM/PM10 emissions.
VOC estimates based on addition of typical biocides, 5% by volume by weight
Biocide to be used does not contain VOC.

PM/PM10 = circulation rate, gal/hr *TDS, ppm *drift loss * 8760 hrs/yr * ton/2000 lb *density of water *1/1000000 ppm

Appendix A: Emission Calculations
Fugitive Emissions From Paved Roads

Company Name: The Andersons Clymers Ethanol, LLC
Address: County Roads 300S and 350W, Logansport, Indiana 46947
Permit: 017-26224-00023
Reviewer: Jason R. Krawczyk
Date: May 14, 2008

1. Emission Factors: AP-42

According to AP-42, Chapter 13.2.1 - Paved Roads (12/03), the PM/PM10 emission factors for paved roads can be estimated from the following equation:

$$E = (k \times (sL/2)^a \times (w/3)^b - C) \times (1 - p/(4 \times 365))$$

where:

E =	emission factor (lb/vehicle mile traveled)	
sL =	road surface silt loading (g/m^2) =	0.4 (g/m^2) (AP-42, Table 13.2.1-3)
w =	mean vehicle weight (tons) =	27.5 tons
k =	empirical constant =	0.082 for PM and 0.016 for PM10
a =	empirical constant =	0.65
b =	empirical constant =	1.5
C =	emission factor for exhaust, brake and tire wear	0.00047 for PM and PM10
p =	number of days per year with 0.01 inches precipitation	140

PM Emission Factor = $(0.082 \times (0.4/2)^{0.65} \times (20.6/3)^{1.5} - 0.00047) \times (1 - 120/1460)$ = **0.72** lbs/mile

PM10 Emission Factor = $(0.016 \times (0.4/2)^{0.65} \times (20.6/3)^{1.5} - 0.00047) \times (1 - 120/1460)$ = **0.14** lbs/mile

2. Potential to Emit (PTE) of PM/PM10 Before Control from Paved Roads:

Vehicle Type	*Ave Weight of Vehicles (tons)	*Trip Number (trips/year)	* Round Trip Distance (mile/trip)	Vehicle Mile Traveled (VMT) (miles/yr)	Traffic Component (%)	Component Vehicle Weight (tons)	PTE of PM before Control (tons/yr)	PTE of PM10 before Control (tons/yr)
Corn Delivery Truck	27.5	59,920	0.68	40,746	55.7%	15.3	14.7	2.91
Denaturant Delivery Truck	27.5	917	1.00	917	1.3%	0.3	0.33	0.07
Ethanol Shipping Truck	27.5	12,833	1.00	12,833	17.6%	4.8	4.64	0.92
DDGS Shipping Truck	27.5	16,696	1.10	18,366	25.1%	6.9	6.63	1.31
Chemical Trucks	27.5	260	1.00	260	0.4%	0.1	0.09	0.02
Total				**73,122**	**100%**	**27.5**	**26.41**	**5.22**

* This information is provided by the source.

Methodology

Vehicle Mile Traveled (miles/yr) = Trip Number (trips/year) x Round-Trip Distance (mile/trip)
Traffic Component (%) = VMT / Total VMT
Component Vehicle Weight = Ave. Weight of Vehicles (ton) x Traffic Component (%)
PTE of PM/PM10 before Control (tons/yr) = VMT (miles/yr) x PM/PM10 Emission Factors x 1 ton/2000 lbs

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	Permit:	017-26224-00023			
	Reviewer:	Jason R. Krawczyk			
	Date:	May 14, 2008			
Valves, and Flanges Fugitive Emissions					
Equipment	# of Components	Leak Rate (kg/hr/component)	Uncontrolled VOC Emissions (ton/yr)	LDAR % Control	Controlled VOC Emissions (tons/yr)
Light Liquid Valves	600	0.00403	23.30	84%	3.73
Light Liquid Pumps	50	0.0199	9.59	69%	2.97
Gas Valves	100	0.00597	5.75	87%	0.75
Flanges (connectors)	1000	0.00183	17.63	87%	2.29
TOTAL	1750		56.27		9.74
HAP Portion of the VOC					
HAP	Mass Fraction	Uncontrolled HAP (tons/yr)	Controlled HAP (tons/yr)		
Formaldehyde	0.000169	0.010	0.002		
Acetaldehyde	0.155	8.723	1.510		
Methanol	0.015	0.844	0.146		
Acrolein	0.0045	0.253	0.044		

Uncontrolled VOC = # components * Leak rate, kg/hr/unit * 2.2 lb/kg * 8760 hrs/yr * ton/2000 lb

Controlled VOC = Uncontrolled VOC * (1-LDAR Control)

Uncontrolled HAP = total uncontrolled VOC * Mass fraction

Basis: Leak rate (SOCMI average) multiplied by no. of components based on a similar size facility.

Leak Rates and VOC control were taken from the Protocol for Leak Emission Rates EPA- 453/R-95-017, Nov. 1995

Appendix A: Emission Calculations
VOC and HAP Emissions

Company Name: The Andersons Clymers Ethanol, LLC
Address: County Road 300S and 350 W, Logansport, IN 46947
Permit: 017-26224-00023
Reviewer: Jason R. Krawczyk
Date: May 14, 2008

Fermentation Process

1. Process Description:

Max. Throughput Rate: 137.5 MMgal/yr of ethanol
Control Equipment: Wet Scrubber with 98% efficiency.

2. Potential to Emit (PTE) of VOC and HAP:

Pollutant	Emission Factor (lb/MMgal)	PTE after Control (tons/yr)	**Control Efficiency (%)	PTE before Control (tons/yr)
VOC	600.00	41.3	98%	2,063
PM	4.96	0.34	98%	17
PM10	11.10	0.76	98%	38
HAP				
Acetaldehyde (1)	67.00	4.61	98%	230.3
Acrolein	5.88	0.40	98%	20.21
Formaldehyde	0.22	0.02	98%	0.76
Methanol	19.85	1.36	98%	68.23
Total HAP	**92.95**	**6.39**		**319.5**

(1) Emission factor based on a review of source test data for similar ethanol production.
Other Emission factors were extrapolated from ICM -Russell Ethanol plant stack test data.

Methodology

PTE after Control (tons/yr) = Throughput rate, MMgal/yr x Ef lb/MMgal * 1 ton/2000 lbs
PTE before Control (tons/yr) = PTE after Control (tons/yr) / (1- Control Efficiency)

Appendix A: Emission Calculations
Loading Rack Emissions

Company Name: The Andersons Clymers Ethanol, LLC
Address: County Roads 300S and 350 W, Logansport, IN 46947
Permit: 017-26224-00023
Reviewer: Jason R. Krawczyk
Date: May 14, 2008

Loading Racks Emissions (FLARE, CE012)

1. Emission Factors: AP-42

Ethanol will be shipped by truck and by rail. Railcars will be dedicated fleets, but the trucks may be used to carry gasoline prior to filling with ethanol. Railcars and trucks will be filled by submerged loading process, both loading racks (truck and rails) will be controlled by flare CE012, 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 rack can be estimated from the following equation:

L = 12.46 x (SPM)/T

where:

L = loading loss (lbs/kgal)
S = a saturation factor (see AP-42, Table 5.2-1)
P = true vapor pressure of the liquid loaded (psia)
M = molecular weight of vapors
T = temperature of the bulk liquid loaded (degree R)

Previous Stored Liquid	*S	P (psia)	M (lbs/mole lbs)	T (degree R)	L (lbs/kgal)
Gasoline (normal)	0.6	4.390	66	510	4.25
Gasoline (clean cargo)	0.5	4.390	66	510	3.54
Denatured Ethanol (normal)	0.6	0.589	49.7	510	0.43
Denatured Ethanol (clean cargo)	0.5	0.589	49.7	510	0.36

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) = 1.07 (lbs/kgal)

2. Potential to Emit VOC Before and After Control:

Railcar Max. Loading Rate = 137,500 kgal/yr

Rail Loading Emissions:
VOC Emissions Before Control = 137,500 kgal/yr x 1.08 lbs/kgal x 1 ton/2000 lbs = **73 tons/yr**
VOC Emissions After Control @ 3000 Hrs = **0.50** tons/yr (Flare at 98% efficiency)

Truck Loading Emissions Before Control = 137,500 kgal/yr x 4.25 lb/kgal x 1 ton/2000 lb = **292 tons/yr** (worst case)
Truck Loading Emissions After Control = **5.84** tons/yr (both rail and truck)
Combustion VOC Emissions = **0.97** tons/yr
TOTAL Controlled VOC Emissions = **6.81** tons/yr

Combustion Emissions: (Using Waste gas Emission factors, AP-42, Table 13.5-1 VOC = 0.052 lb/MMBtu, CO = 0.37 lb/MMBtu)
NOx = 0.068 lb/MMBtu, PM/PM10 = negligible (smokeless design), SO2 = negligible

Flaring Emissions: 12.4 MMBtu/hr heat input

	Emissions @ 8760 hrs/yr	Emissions @ 3000 hr/yr
VOC Emissions =	2.82 tons/yr	0.97 tons/yr
NOx Emissions =	3.69 tons/yr	1.26 tons/yr
CO Emissions =	20.10 tons/yr	6.88 tons/yr

Pilot Emissions: (Using Emission factors, AP-42, Table 1.4 VOC = 0.0055 lb/MMBtu, CO = 0.084 lb/MMBtu)
NOx = 0.1 lb/MMBtu, PM/PM10 = 0.0076 lb/MMBtu, SO2 =0.0006 lb/MMBtu

Pilot Emissions: 0.1 MMBtu/hr heat input

VOC Emissions =	0.002 tons/yr
NOx Emissions =	0.04 tons/yr
CO Emissions =	0.04 tons/yr
PM/PM10 Emissions =	0.0033 tons/yr
SO2 Emissions =	0.0003 tons/yr

Appendix A: Emission Calculations
Loading Rack HAP Emissions

Company Name: The Andersons Clymers Ethanol, LLC
Address: County Roads 300S and 350 W, Logansport, IN 46947
Permit: 017-26224-00023
Reviewer: Jason R. Krawczyk
Date: May 14, 2008

Equipment	VOC Emissions(1)		HAP Emissions(2)											
			Benzene		Toluene		Xylene		Cumene		Ethylbenzene		MTBE	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
Truck/Rail Loadout	6.910	5.84	0.17	0.14	1.04	0.88	0.83	0.70	0.07	0.06	0.14	0.12	0.52	0.44
Rail Loadout	6.910	5.84	--	--	--	--	--	--	--	--	--	--	--	--
Truck/Rail Loadout	6.910	5.84	0.17	0.14	1.04	0.88	0.83	0.70	0.07	0.06	0.14	0.12	0.52	0.44

Notes:
(1) Based on emissions quantified on Page 10 of x TSD App A. Rail Loadout emissions have negligible HAP content.
(2) Hazardous air pollutant emissions - quantified based on the emission factors below.

HAP Mass fraction in Truck Loadout VOCs [a]					
Benzene	Toluene	Xylene	Cumene	Ethyl benzene	MTBE
0.02	0.15	0.12	0.01	0.02	0.08

[a]Mass fraction is average of typical MSDS range for gasoline

Appendix A: Emissions Calculations
Biomethanator Flare

Company Name: The Andersons Clymers Ethanol, LLC
Address: County Roads 300S and 350W, Logansport, IN 46947
Permit: 017-26224-00023
Reviewer: Jason R. Krawczyk
Date: May 14, 2008

Heat Input Capacity
MMBtu/hr

6.4

Flaring Emissions

	Pollutant		
	VOC	CO	NOx
Emission Factor in lb/MMBtu	0.052	0.370	0.068
Potential Emission in tons/yr	0.17	1.18	0.22

0.1 mmBtu/hr

Pilot Emissions

	Pollutant					
	PM*	PM10*	SO2	CO	NOx	VOC
Emission Factor in lb/MMCF	1.9	7.6	0.6	84	100	5.5
Potential Emission in tons/yr	0.0008	0.0033	0.0003	0.0368	0.0438	0.0024

Note: VOC Ef from flaring is 0.14 lb/MMBtu measured as methane equivalent (Table 13.5-1). Methane and Ethane is subtracted from the total VOC = 0.14 * 55% methane (% from Table 13.5-2) + 8% ethane = 0.052 lb/MMBtu
The flare only operates or control emissions from the biomethanator when the dryer is down, which is at 1000 hrs/yr (worst case)
Otherwise, biomethanator off gases go to the dryer for combustion.
Flare - soot in concentration value of 0 mg/liter (nonsmoking flare)

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet o

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3
(SUPPLEMENT D 3/98)
Emissions, tons/yr = heat input, MMBtu/hr * 8760 hrs/yr * MMCF/1000 MMBtu
* Ef, lb/MMCF / 2000 lbs/ton

Company Name: The Andersons Clymers Ethanol, LLC
Address City IN Zip: County Roads 300S and 350W, Clymers, IN 46947
Permit Number: 017-26224-00023
Plt ID: 017-00023
Reviewer: Jason R. Krawczyk
Date: May 14, 2008

Heat Input Capacity
MMBtu/hr

180.0

DDGS DRYERS BIOGAS AND NATURAL GAS COMBUSTION EMISSIONS

Throughput
MMCF/yr 1576.8

	SO2	NOx
Emission Factor in lb/MMCF	0.6	51.0 **see below
Potential Emission in tons/yr	0.47	40.21

**NOx Emission Factor came from the manufacturer which is lower than the AP-42.
Note: The 180 MMBtu/hr heat input rate includes 3.0 MMBtu/hr heat input from the biogas, which supplements natural gas.

This emission factor will be verified through stack test.

Maximum Biogas supplement = 3 MMBtu/hr * 1 CF/850 Btu * 8760 hrs/yr = 30,917,647 CF/yr
Fuel Equivalency = 1 CF biogas/850 Btu * 1,000 Btu/CF = 1.17 CF of biogas/CF N.G.

180 MMBtu/hr - 3 MMBtu/hr = 177 MMBtu/hr
Natural Gas Limit = 177 MMBtu/hr * 8760 hrs/yr * 1 MMCF/1000 MMBtu = 1,550.5 MMCF/yr

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04
(AP-42 Supplement D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

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Address City IN Zip: County Roads 300S and 350W, Clymers, IN 46947
Permit : 017-26224-00023
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EMISSIONS FROM DISTILLATION/EVAPORATION			
DDGS DRYERS & 2 RTOS (180 mmBtu/hr & 244 MMBtu/hr)	424 MMBtu	424,000 scf/hr	3,714 MMBtu/yr
RTOs	244 MMBtu/hr		
Maximum Capacity, tons/yr =	417,411 DDGS Dried		

	Uncontrolled			Controlled		
	PM/PM10	CO	VOC	PM/PM10	CO	VOC
Emission Factor in lb/ton	2.00E+00	5.3E-01	1.0E+01	0.14	0.43	0.1
Potential Emission in tons/yr	417.41	110.61	2087.06	29.22	89.74	20.87

	SO2	SO2 (combustion)	Total SO2 Emissions	NOx
Emission Factor	0.45 lb/ton	0.6lb/MMCF		51 lbs/MMCF
Emissions from combustion and DDGS drying process with the use of Sulfuric Acid to control PH in the process	93.92	0.64	94.56	54.50

DDGS DRYING PROCESS EMISSIONS

UNCONTROLLED				CONTROLLED			
Acetaldehyde 0.56 lb/ton	Formaldehyde 0.31 lb/ton	Acrolein 0.066 lb/ton	Methanol 0.11 lb/ton	Acetaldehyde 0.56 lb/ton	Formaldehyde 0.31 lb/ton	Acrolein 0.066 lb/ton	Methanol 0.11 lb/ton
116.88	64.70	13.77	22.96	3.51	1.94	0.41	0.69

DDGS DRYING / RTOs COMBUSTION EMISSIONS

UNCONTROLLED												
Hexane 1.80 lb/MMscf	Formaldehyde .075 lb/MMscf	Toluene .0034 lb/MMscf	Benzene .0021 lb/MMscf	Nickel .0021 lb/MMscf	Chromium .0014 lb/MMscf	Dichlorobenzene .0012 lb/MMscf	Cadmium .0011 lb/MMscf	Naphthalene .00061 lb/MMscf	Manganese .00038 lb/MMscf	Mercury .00026 lb/MMscf	Arsenic .00020 lb/MMscf	Cobalt .000084 lb/MMscf
3.34	0.14	0.01	0.004	0.004	0.003	0.002	0.002	0.001	0.001	0.0005	0.0004	0.0002

Thermal oxidizer controlling PM/PM10 at 91% efficiency, CO at 93% efficiency, and VOC at 98% efficiency.
Emission Factors were based on a review of source-test data for similar ethanol production facilities. These emission factors will be verified through stack testing.

Methodology:
Uncontrolled /Controlled PTE, tons/yr = DDGS dried, tons/yr * Ef, lb/ton * ton/2000 lbs
Combustion Emissions, tons/yr = Fuel Usage (MMBtu/hr) * Ef, lb/MMscf * ton/2000 lbs

Appendix A: Emission Calculations
Internal Combustion Engines - Diesel Fuel
Turbine (>250 and <600 HP)
Reciprocating

Company Name: The Andersons Clymers Ethanol, LLC
Address: County Roads 300S and 350W, Logansport, IN 46947
Permit: 017-26224-00023
Reviewer: Jason R. Krawczyk
Date: May 14, 2008

Heat Input Capacity Horsepower (hp)	Potential Throughput hp-hr/yr	
300.0	90000.0	2628000.0

Emergency pump

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr @ 8760 hrs/yr	2.89	2.89	2.69	40.73	3.30	8.78
Potential Emission in tons/yr @ 300 hrs/yr	0.10	0.10	0.09	1.40	0.11	0.30

EF from the manufacturer will not be used in the calculation in order that no verification through stack test will be made, since PTE is insignificant.

Methodology

Potential Througput (hp-hr/yr) = hp * 300 hr/yr

Use a conversion factor of 7,000 Btu per hp-hr to convert from horsepower to Btu/hr, unless the source gives you a source-specific brake-specific fuel consumption. (AP-42, Footnote a, Table 3.3-1)

Emission Factors are from AP42 (Supplement B 10/96), Table 3.3-2
Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] * 8760 hr/yr / (2,000 lb/ton)
Emission (tons/yr) = [Potential Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton)

*PM 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.

Appendix A: Emission Calculations
VOC and HAP Emissions
From the Wetcake Storage

Company Name: The Andersons Clymers Ethanol, LLC
Address: County Roads 300S and 350W, Logansport, IN 46974
Permit: 017-26224-00023
Reviewer: Jason R. Krawczyk
Date: May 14, 2008

1. Process Description:

Max. Throughput Rate: 105.9 tons/hr of wetcake (provided by the source)

2. Potential to Emit (PTE) of VOC and HAP from Wetcake Storage:

Pollutant	*Emission Factor (lbs/ton)	PTE (tons/yr)
VOC	8.30E-03	**3.85**
HAP		
Acetaldehyde	1.1E-04	**0.05**
Acrolein	1.7E-05	**0.01**
Formaldehyde	2.2E-04	**0.10**
Methanol	4.4E-05	**0.02**
Total HAP		**0.18**

* Emission Factors provided by the source based on the stack test results for Diversified Energy Company, LLC in Minesota.

Methodology

PTE (tons/yr) = Max. Throughput Rate (tons/hr) x Emission Factor (lbs/ton) x 8760 hr/yr x 1 ton/2000 lbs

Company Name: The Andersons Clymers Ethanol, LLC
Address: County Roads 300S and 350W, Logansport, Indiana 46947
Permit: 017-26224-00023
Reviewer: Jason R. Krawczyk
Date: May 14, 2008

Storage Tanks

Emission Point	Tank Capacity	Tank Dimensions		Maximum Throughtput	Annual Tank Turnovers	VOC Emissions		
	(gal)	Diameter	Height	(gal/yr)	(#)	(lbs/yr[1])	(lbs/hr)	(tons/yr)
		(ft)	(ft)					
190 Proof Ethanol Storage Tank	188,000	37	27	130,952,381	696.6	980.85	0.112	0.49
200 Proof Ethanol Storage Tank	188,000	37	27	130,952,381	696.6	980.85	0.112	0.49
Denatured Ethanol Storage Tank	2,200,000	100	41	104,378,750	47.4	936.18	0.107	0.47
Denatured Ethanol Storage Tank	740,000	54	47	33,121,250	44.8	434.66	0.050	0.22
Denatured Gasoline Storage Tank	235,000	24	76	6,875,000	29.3	2122.24	0.242	1.06
Corrosion Inhibitor Tank	2,300	8	10	57,499	25.0	11.92	0.001	0.01
TOTAL EMISSIONS							**0.624**	**2.73**

Notes:
(1) Based on USEPA's Tank 4.09d emission calculations (attached)

Company Name: The Andersons Clymers Ethanol, LLC
Address: County Roads 300S and 350W, Logansport, Indiana 46947
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Insignificant Process Tanks

Emission Point	VOC Concentration (ppm)	Molecular Weight Factor	Flow Rate (cfm)	Conversion Constant -1.56E-07	Midwest Scaling Factor	VOC Emissions (lb/hr)	VOC Emissions (tons/yr)
Thin Stillage Tank Vent	44.00	59.2	8.0	1.55E-07	2.3	7.50E-03	0.033
Syrup Tank Vent	62.20	59.2	5.4	1.55E-07	2.3	7.10E-03	0.031
Cook Water Tank Vent	31.00	59.2	13.4	1.55E-07	2.3	8.80E-03	0.039
Liquifaction Tank #1 (1)	64.70	59.2	80	1.55E-07	2.3	1.10E-01	0.481
Whole Stillage Tank (2)	7.00	59.2	100	1.55E-07	2.3	1.48E-02	0.065
TOTAL EMISSIONS						**1.48E-01**	**0.649**

Notes:
(1) No vent on other liquefaction tanks
(2) Based on VOC measurement of wet cake