



# 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](http://www.idem.IN.gov)

TO: Interested Parties / Applicant

DATE: January 22, 2010

RE: POET Biorefining - Farmersburg / 167-28875-00145

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

## Notice of Decision – Approval

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 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires 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 from 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-AM.dot12/3/07



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Mr. Rafe Christopherson  
POET Biorefining - Farmersburg  
4615 North Lewis Avenue  
Sioux Falls, South Dakota 57104

January 22, 2010

Re: 167-28875-00145  
Administrative Amendment to:  
New Source Construction and  
Part 70 Operating Permit No. T167-26088-00145

Dear Mr. Christopherson:

On January 13, 2010, the Office of Air Quality (OAQ) received a letter from POET Biorefining - Farmersburg requesting an extension to the 18-month construction deadline required in New Source Construction and Part 70 Operating Permit No. T167-26088-00145 issued on July 24, 2008. This extension was requested due to the downturn in the economy and awaiting a final decision from the Federal Environmental Protection Agency on the promulgated rules related to the Greenfield ethanol industry.

The new source construction and Part 70 operating permit was issued for the construction of the following emission units:

- (a) Three (3) truck dump pits, identified as EU001, approved for construction in 2008, with a maximum throughput rate of 1,260 tons of corn per hour, controlled by baghouse CE001, and exhausting through stack SV001.

Under NSPS, Subpart DD, these units are considered to be an affected facility.

- (b) One (1) grain leg, conveying system, and three (3) corn storage bins, identified as EU002, approved for construction in 2008, with a maximum throughput rate of 1,260 tons per hour, controlled by baghouse CE002, and exhausting through stack SV002.

Under NSPS, Subpart DD, these units are considered to be an affected facility.

- (c) One (1) grain leg, conveying system, and three (3) corn storage bins, identified as EU003, approved for construction in 2008, with a maximum throughput rate of 1,260 tons per hour, controlled by baghouse CE003, and exhausting through stack SV003.

Under NSPS, Subpart DD, these units are considered to be an affected facility.

- (d) One (1) corn scalper, identified as EU004, and one (1) surge bin, identified as EU005, approved for construction in 2008, with a maximum throughput rate of 230 tons of corn per hour, controlled by baghouse CE004, and exhausting through stack SV004.

Under NSPS, Subpart DD, these units are considered to be an affected facility.

- (e) Ten (10) hammermills, identified as EU006 through EU015, approved for construction in 2008, each with a maximum throughput rate of 23 tons of corn per hour, controlled by baghouses CE005 through CE014, respectively, and exhausting through stacks SV005 through SV014, respectively.

- (f) One (1) fermentation process, approved for construction in 2008, with a maximum throughput rate of 81,000 gallons per hour, controlled by a wet scrubber CE015 and one of either two (2) thermal oxidizers CE016 and CE017, each with a maximum heat input capacity of 20 MMBtu/hr, with emissions exhausting through stack SV015, consisting of the following equipment:
- (1) One (1) slurry tank, identified as EU016;
  - (2) Ten (10) fermenters, identified as EU017 through EU026;
  - (3) One (1) yeast propagation tank, identified as EU027; and
  - (4) One (1) beer well, identified as EU028.

Under NSPS, Subpart VVa, the pumps, compressors, pressure relief devices, sampling connection systems, open-ended valve or lines, valves, and flanges or other connectors in VOC service are considered to be affected facilities.

- (g) One (1) distillation process, approved for construction in 2008, with a maximum beer feed rate of 81,000 gallons per hour, controlled by a wet scrubber CE015 and one of either two (2) thermal oxidizers CE016 and CE017, each with a maximum heat input capacity of 20 MMBtu/hr, with emissions exhausting through stack SV015, consisting of the following equipment:
- (1) One (1) beer stripper, identified as EU029;
  - (2) One (1) rectifier column, identified as EU030;
  - (3) One (1) side stripper, identified as EU031;
  - (4) One (1) set of three (3) molecular sieves, identified as EU032; and
  - (5) One (1) set of four (4) evaporators, identified as EU033.

Under NSPS, Subpart VVa, the pumps, compressors, pressure relief devices, sampling connection systems, open-ended valve or lines, valves, and flanges or other connectors in VOC service are considered to be affected facilities.

- (h) One (1) set of four (4) centrifuges, identified as EU034, approved for construction in 2008, controlled by one of either two (2) thermal oxidizers CE016 and CE017, each with a maximum heat input capacity of 20 MMBtu/hr, with emissions exhausting through stack SV015.

Under NSPS, Subpart VVa, the pumps, compressors, pressure relief devices, sampling connection systems, open-ended valve or lines, valves, and flanges or other connectors in VOC service are considered to be affected facilities.

- (i) One (1) natural gas fired DDGS dryer, identified as EU035, approved for construction in 2008, with a maximum heat input rate of 85 MMBtu/hr, with a total maximum throughput rate of 85.8 tons of DDGS per hour, controlled by one of either two (2) thermal oxidizers CE016 and CE017, each with a maximum heat input capacity of 20 MMBtu/hr, with emissions exhausting through stack SV015.
- (j) Two (2) natural gas fired DDGS dryers, identified as EU036 and EU037, approved for construction in 2008, each with a maximum heat input rate of 59.1 MMBtu/hr, with a maximum throughput rate of 45 tons of DDGS per hour each, controlled by one of either

two (2) thermal oxidizers CE016 and CE017, each with a maximum heat input capacity of 20 MMBtu/hr, with emissions exhausting through stack SV015.

- (k) Four (4) natural gas fired boilers, identified as EU038 through EU041, approved for construction in 2008, each with a maximum heat input rate of 99.9 MMBtu/hr, with emissions exhausting to stacks SV016 through SV019, respectively.

Under NSPS, Subpart Dc, the boilers are each considered to be a new steam generating unit.

- (l) One (1) DDGS handling and storage operation and one (1) DDGS storage silo, collectively identified as EU042a, approved for construction in 2008, with a maximum throughput rate of 43 tons/hr of DDGS, controlled by baghouse CE018, with emissions exhausting through stack SV020.

- (m) One (1) DDGS handling and storage operation and one (1) DDGS storage silo, collectively identified as EU042b, approved for construction in 2008, with a maximum throughput rate of 43 tons/hr of DDGS, controlled by baghouse CE019, with emissions exhausting through stack SV021.

- (n) One (1) DDGS silo bypass, identified as EU042c, approved for construction in 2008, with a maximum throughput rate of 43 tons/hr of DDGS, controlled by baghouse CE020, with emission exhausting through stack SV022.

- (o) One (1) DDGS storage and loadout operation, approved for construction in 2008, controlled by baghouse CE021, with emission exhausting through stack SV0023, and consisting of the following equipment:

- (1) One (1) flat storage building, identified as EU043;
- (2) One (1) DDGS conveyor, identified as EU044, with a maximum throughput rate of 400 tons/hr of DDGS;
- (3) One (1) DDGS truck loadout, identified as EU045, with a maximum throughput rate of 400 tons/hr of DDGS; and
- (4) One (1) DDGS rail loadout, identified as EU046, with a maximum throughput rate of 400 tons/hr of DDGS.

- (p) One (1) ethanol loading system, identified as EU047, consisting of three (3) racks for trucks and three (3) racks for railcars, approved for construction in 2008, with a maximum throughput rate of 78,000 gallons per hour when loading trucks, and 288,000 gallons per hour when loading railcars. This unit is controlled by enclosed flare CE022, which is fueled by natural gas and has a pilot gas flare heat input capacity of 10.4 MMBtu/hr, and exhausts through stack SV024.

Under NSPS, Subpart VVa, the pumps, compressors, pressure relief devices, sampling connection systems, open-ended valve or lines, valves, and flanges or other connectors in VOC service are considered to be affected facilities.

- (q) Two (2) diesel emergency generators, identified as EU048 and EU049, approved for construction in 2008, each with a maximum power output rate of 2,875 HP, and exhausting to stacks SV025 and SV026.

Under NSPS, Subpart IIII, the diesel generators, EU048 and EU049, are each considered a stationary compression ignition (CI) internal combustion engine (ICE).

The following insignificant activities will also be added to the source:

- (a) Other emission units, not regulated by a NESHAP, with PM<sub>10</sub>, NO<sub>x</sub>, and SO<sub>2</sub> emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs:
- (1) One (1) storage tank for 190-proof ethanol, identified as T001, approved for construction in 2008, with a maximum capacity of 500,000 gallons.
  - (2) Two (2) storage tanks for 200-proof ethanol, identified as T002 and T003, approved for construction in 2008, each with a maximum capacity of 3,000,000 gallons of 200-proof ethanol.
  - (3) One (1) denaturant tank, identified as T004, approved for construction in 2008, with a maximum capacity of 300,000 gallons of RVP15 gasoline. [326 IAC 8-4-3]
  - (4) One (1) thin stillage tank, identified as T007, approved for construction in 2008, with a maximum storage capacity of 500,000 gallons of thin stillage.
  - (5) One (1) syrup tank, identified as T008, approved for construction in 2008, with a maximum storage capacity of 61,000 gallons of syrup.

Under NSPS, Subpart Kb, storage tanks T001, T002, T003, and T004 are considered to be new volatile organic liquid storage tanks.

- (b) One (1) diesel storage tank, identified as T006, approved for construction in 2008, with a maximum storage capacity of less than 2,000 gallons of diesel fuel.
- (c) Brazing, soldering, or welding equipment or portable cutting torches used only for non-production activities.

There are no new state rules applicable to these emission units. However, IDEM, OAQ has determined that there is a new federal rule applicable to this source, National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources, 40 CFR 63, Subpart VVVVV. IDEM, OAQ recommends that the Permittee submit an application for a permit modification to incorporate the federal rule requirements, prior to commencing operation. POET Biorefining - Farmersburg is responsible for complying with 40 CFR 63, Subpart VVVVV regardless of whether it is in the permit.

There are no pending Prevention of Significant Deterioration (PSD) increment consuming permits in process for the local area.

Pursuant to 326 IAC 2-7-10.5(i), OAQ agrees to extend the 18 month construction deadline by an additional 18 months to July 24, 2011. This document further amends New Source Construction and Part 70 Operating Permit No. T167-26088-00145 in a similar manner. Condition B.2 - Revocation of Permits is amended to extend the deadline date for the commencement of construction to July 24, 2011. If construction does not commence on or before this date, additional approval from the Office of Air Quality shall be required.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment with the original new source construction and Part 70 operating permit.

Sincerely,



Donald F. Robin, P.E., Section Chief  
Permits Branch  
Office of Air Quality

Attachments

DFR/jcb

cc: Vigo County  
Vigo County Health Department  
Compliance and Enforcement Branch  
U.S. EPA, Region V



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## SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Rafe Christopherson  
POET Biorefining - Farmersburg  
4615 North Lewis Avenue  
Sioux Falls, SD 57104

DATE: January 22, 2010

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

SUBJECT: Final Decision  
Part 70 - AA  
167-28875-00145

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:  
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at [jbrush@idem.IN.gov](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 11/30/07

# Mail Code 61-53

IDEM Staff	CDENNY 1/22/2010 POET Biorefining- Farmersburg 167-28875-00145 (final)		Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
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2		Larry Ward Chairman POET Biorefining- Farmersburg 4615 N Lewis Ave Sioux Falls SD 57104 (RO CAATS)									
3		Mr. Charles L. Berger Berger & Berger, Attorneys at Law 313 Main Street Evansville IN 47700 (Affected Party)									
4		Vigo County Board of Commissioners County Annex, 121 Oak Street Terre Haute IN 47807 (Local Official)									
5		Vigo County Health Department 147 Oak Street Terre Haute IN 47807 (Health Department)									
6		J.P. Roehm PO Box 303 Clinton IN 47842 (Affected Party)									
7		George Needham Vigo County Air Pollution Control 103 South Third St. Terre Haute IN 47807 (Local Official)									
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