



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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Commissioner

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## **Legal Notice – Public Comment Period and Opportunity for Public Hearing State Implementation Plan (SIP) Submittal**

### **Abengoa Bioenergy of Indiana in Posey County Commissioner's Order No 2009-OAQ-01.**

Notice is hereby given under 40 CFR 51.102 that the Indiana Department of Environmental Management is accepting written comments and providing an opportunity for a public hearing regarding a revision to the Indiana state implementation plan (SIP) for Abengoa Bioenergy of Indiana in Posey County, located at 8999 West Franklin Road, Mt. Vernon, Indiana 47620. All interested persons are invited and will be given reasonable opportunity to express their views concerning the proposed revision to the SIP.

The purpose of this notice is to solicit public comment on a proposed revision to the SIP that is accomplished by Commissioner's Order No. 2009-OAQ-01 for Abengoa Bioenergy of Indiana and U.S. EPA's approval of the issued Commissioner's Order. The Commissioner's Order allows Abengoa Bioenergy of Indiana to control the VOC emissions from the ethanol loading racks with two (2) John Zink carbon adsorption/absorption hydrocarbon vapor recovery systems, in lieu of the requirement to control VOC emissions using the control devices specified in 326 IAC 8-5-6. This Commissioner's Order will be submitted to the U.S. EPA for approval as a revision to the SIP.

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30<sup>th</sup> day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this proposed SIP revision. Requests for a public hearing must be submitted on or before June 5, 2009. A public hearing has been scheduled for June 9, 2009. The hearing will convene at 5:00 p.m. CST at the Alexandrian Public Library, 115 West 5th Street, Mt. Vernon, Indiana. If no timely request for a public hearing is received the hearing will be cancelled. Interested parties can check the online IDEM calendar at <http://www.in.gov/idem/5390.htm> or contact Brian Williams at the contact information listed below to see if the hearing has been cancelled. At a hearing, you would have an opportunity to submit written comments and make verbal comments.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. Please refer to Commissioner's Order number (2009-OAQ-01) in all correspondence.

#### **Comments should be sent to:**

Brian Williams  
IDEM, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
(800) 451-6027, ask for extension (4-5375)  
Or dial directly: (317) 234-5375

E-mail: [bwilliam@idem.in.gov](mailto:bwilliam@idem.in.gov)

A copy of the Commissioner's Order is available to any person upon request and is available for public inspection at the following locations:

IDEM, Office of Air Quality  
IGCN 1003  
100 N. Senate Ave  
Indianapolis, IN 46204-2251

and

Alexandrian Public Library  
115 West 5th Street  
Mt. Vernon, Indiana 47620

and

IDEM Southwest Regional Office  
1120 N. Vincennes Ave.  
Petersburg, IN 47567

The Commissioner's Order is also available on the IDEM website at:  
<http://www.in.gov/idem/4686.htm>

If you have any questions please contact Brian Williams of my staff at the above address.

Individuals requiring reasonable accommodations for participation in this event should contact the Indiana Department of Environmental Management, Americans with Disabilities Act coordinator at:

Attn: ADA Coordinator  
Indiana Department of Environmental Management  
100 N. Senate Avenue  
Indianapolis, IN 46204

or call (317) 233-1785 (V) or (317) 232-6565 (TDD). Speech and hearing impaired callers may contact IDEM via the Indiana Relay Service 711 or 1-800-743-3333. Please provide a minimum of 72 hours' notification.



On December 24, 2008, the Petitioner submitted an application to the Office of Air Quality to modify to the plant's design, including the ethanol loading racks. Since this plant is being modified, it is now subject to the requirements of 326 IAC 8-5-6(Fuel Grade Ethanol Production At Dry Mills), instead of 326 IAC 8-1-6 (New Facilities: General Reduction Requirements).

On February 23, 2009, the Petitioner submitted a request for a site-specific RACT plan in accordance to 326 IAC 8-1-5 (Petition For Site Specific RACT Plan) to use an alternative to the requirements specified in 326 IAC 8-5-6 (Fuel Grade Ethanol Production At Dry Mills).

The Petitioner proposed to control the VOC emissions from the ethanol loading racks with two (2) John Zink carbon adsorption/absorption hydrocarbon vapor recovery systems. As currently written, 326 IAC 8-5-6 does not allow sources to use carbon adsorption/absorption hydrocarbon vapor recovery systems or other equivalent control devices that are not currently specified in the rule.

The petition is submitted for the following reasons:

1. The proposed carbon adsorption/absorption hydrocarbon vapor recovery systems are recognized as Best Available Control technology (BACT), Maximum Achievable Control Technology (MACT), and Generally Available Control Technology (GACT) by the US EPA, as are the add-on control devices outlined in 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills).
2. The proposed carbon adsorption/absorption hydrocarbon vapor recovery systems also have control efficiency of at least ninety-eight (98%) or better. In addition, it will be designed to meet an emission standard of 10 milligrams of VOC release per liter of ethanol loaded, which is the EPA standard for bulk distribution facilities.
3. Finally, the proposed carbon adsorption/absorption hydrocarbon vapor recovery systems do not require the combustion of natural gas to control VOC emissions, unlike enclosed flares, which will cause undue burden to the company. Since the carbon adsorption/absorption hydrocarbon vapor recovery systems do not combust natural gas there will be no by-product emissions that occur from the combustion of natural gas.

The table below provides a comparison of the limited potential to emit for both types of loadout systems. The limited potential to emit VOC for the carbon adsorption/absorption hydrocarbon vapor recovery systems is less than the enclosed flares and the carbon adsorption/absorption hydrocarbon vapor recovery systems will not have the potential to emit CO and NOx. The use of the carbon adsorption/absorption hydrocarbon vapor recovery system also saves approximately 13 million cubic feet of natural gas.

<b>Limited PTE Comparison Between Liquid Load Systems (tons/year)*</b>		
<b>Pollutant</b>	<b>Carbon Adsorption/Absorption Hydrocarbon Vapor Recovery System (Proposed Limits)</b>	<b>Enclosed Flare** (Existing Limits)</b>
VOC	5.67***	8.44
CO	0.0	4.65
NOx	0.0	2.79
Natural Gas Combustion (MMcf per year)	0.0	12.8
* Each system includes the truck/rail and barge emissions associated with the worst-case loadout of 135.7 MMGal of E85 per year. ** Existing Limits in the permit and includes the two-pilot flare emissions at 0.1 MMBtu/hr for 8760 hours and the worst-case truck/rail loading at 1.26 MMBtu/hr for 8760 hours compared to the 2000 hour limit for the 3.78 MMBtu/hr barge loadout flare. *** Limited VOC PTE = 0.0835 (lb/kgal) * 135,714.29 (kgal/yr) * 1/2000 (ton/lb) = 5.67 tons/yr		

The Petitioner understands that IDEM intends to revise rule 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills) to allow sources to use equivalent add-on control devices that are not currently specified in the rule. As a result, the Petitioner believes that requiring the plant to install an enclosed flare or one of the other add-on control devices defined in 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills) will cause an "undue hardship or burden" for the Petitioner and thus delay the startup of the 100-million gallon per year denatured ethanol production facility, which is currently slated to come online in the summer of 2009. This loss in revenue will not only adversely affect the company, but also the surrounding community through lost wages and tax revenue.

### **FINDINGS**

Pursuant to 326 IAC 8-1-5(b), IDEM may approve a petition for a site-specific RACT plan if the petition:

1. is submitted in accordance with 326 IAC 8-1-5(a),
2. demonstrates that the alternative control measures represent RACT, and
3. contains a compliance schedule for achieving and maintaining a reduction of volatile organic compound emissions as expeditiously as practicable.

Based on the foregoing information, IDEM finds the following:

1. As VOC control technologies continue to evolve, IDEM agrees that dry mill ethanol plants should have the flexibility to use equivalent add-on control devices that are not currently specified in 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills) and have the ability to attain the intended minimum overall control efficiency of 98%.
2. IDEM supports the installation of control devices that can achieve similar control efficiencies without the aid of fossil fuels, thus eliminating the associated emissions from combustion.
3. As required by 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills), IDEM must confirm initial and continuing compliance with the proposed add-on control device, thus requiring compliance monitoring and record keeping requirements for the carbon adsorption/absorption hydrocarbon vapor recovery system.

### **CONDITIONS OF APPROVAL**

The issuance of this Order is subject to the following conditions:

1. The Petitioner shall use a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as S2101 to control the emissions from ethanol loading to trucks and railcars (EP2101).
2. The Petitioner shall use a carbon adsorption/absorption hydrocarbon vapor recovery system, identified as S2501 to control the emissions from ethanol loading to barges (EP2501).
3. The overall efficiency for each of the carbon adsorption/absorption hydrocarbon vapor recovery systems S2101 and S2501, (including the capture efficiency and adsorption/absorption efficiency) shall be at least 98%.
4. The carbon adsorption/absorption hydrocarbon vapor recovery systems (S2101 and S2501) shall be in operation and control emissions from the ethanol loading systems (EP2101 and EP2501) at all times when these units are in operation.
5. The Petitioner shall determine initial compliance with the control efficiency requirements within sixty (60) days after achieving maximum production levels but no later than one hundred and

- eighty (180) days after startup.
6. The Petitioner shall monitor and record the carbon bed regeneration pressure for each carbon adsorption/absorption hydrocarbon vapor recovery system (S2101 and S2501) when the ethanol loading systems (EP2101 and EP2501) are in operation at least once per day. The carbon bed regeneration pressure for each carbon adsorption/absorption hydrocarbon vapor recovery system (S2101 and S2501) shall achieve 3 inches Hg during the regeneration cycle of the carbon beds.
  7. The Petitioner shall monitor and record the high adsorber bed temperature for each carbon adsorption/absorption hydrocarbon vapor recovery system (S2101 and S2501) when the ethanol loading systems (EP2101 and EP2501) are in operation at least once per day. The high adsorber bed temperature for each carbon adsorption/absorption hydrocarbon vapor recovery system (S2101 and S2501) shall be maintained at a temperature below 200°F.
  8. The Petitioner shall maintain records of the carbon bed regeneration pressure and high adsorber bed temperature for each carbon adsorption/absorption hydrocarbon vapor recovery system (S2101 and S2501).

#### **ORDER**

1. This Order approves the petition submitted by the Petitioner subject to the Conditions of the Approval and allows the Petitioner to control the VOC emissions from the ethanol loading racks using two (2) John Zink carbon adsorption/absorption hydrocarbon vapor recovery systems, in lieu of the requirement to control VOC emissions from the ethanol loading racks as specified in 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills).
2. This Order shall apply to and be binding upon the Petitioner, its successors and assigns. No change in ownership, corporate, or partnership status of the Petitioner shall in any way alter its status or responsibilities under this Order.

#### **NOTICE OF THE ORDER**

Pursuant to IC 4-21.5-3-5, and 40 CFR 51.102, IDEM will give notice to each person whom the order is directed, affected neighbors, and in a newspaper of general circulation in the region affected by this Order.

Pursuant to 40 CFR 51.102, before issuance of this Order, IDEM must provide a thirty (30) day public notice period and a public hearing of this Order, if requested.

#### **STATE IMPLEMENTATION PLAN SUBMISSION**

Pursuant to 40 CFR 51.104 this Order will be submitted to the United States Environmental Protection Agency (U.S. EPA) as a revision to the Indiana state implementation plan. Upon approval by the U.S. EPA, this Order will be part of the Indiana state implementation plan.

#### **EFFECTIVE DATE OF THE ORDER**

Pursuant to IC 4-21.5-3-5, this Order becomes effective fifteen (15) days after receipt of the notice of the decision, unless a petition for review is filed with the Indiana Office of Environmental Adjudication.

### APPEAL OF THE ORDER

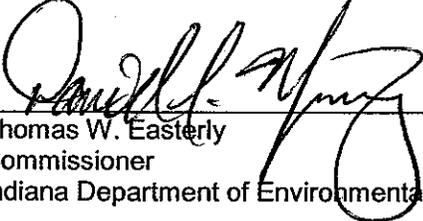
Pursuant to IC-4-21.5-3-5, this Order may be appealed within fifteen (15) days after receipt of notice of decision. If anyone wishes to challenge this decision to grant the Order, IC 4-21.5-3-7 requires that they file a petition for administrative review not later than fifteen (15) days after being served this notice. Pursuant to IC 4-21.5-3-2 you are considered to be served with this notice when you are personally served with the notice or three (3) days after the notice is deposited in the United States mail and addressed to you, whichever occurs first.

A petition must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204. The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by this decision, or otherwise entitled to review by law. Pursuant to IC 4-21.5-3-5(d), the Administrative Law Judge will provide parties who request review with notice of prehearing conferences, preliminary hearings, stays, or orders disposing of all proceedings.

#### **IDEM Contact**

If you have procedural or scheduling questions regarding your request for review you may contact the Office of Environmental Adjudication at (317) 232-8591. If you have questions regarding this Order, please contact Brian Williams 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) 317-234-5375 or 1-800-451-6027, and ask for extension 4-5375.

Dated at Indianapolis, Indiana this 24th day of April, 2009.

  
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Thomas W. Easterly  
Commissioner  
Indiana Department of Environmental Management