



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

**JUN 30 2016**

REPLY TO THE ATTENTION OF

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Matt Tomano, Registered Agent  
POET Biorefining-Portland LLC  
1542 South 200 West  
Portland, Indiana 47371

Re: Notice and Finding of Violation  
POET Biorefining-Portland LLC  
Portland, Indiana

Dear Mr. Matt Tomano:

The U.S. Environmental Protection Agency is issuing the enclosed Notice and Finding of Violation (NOV/FOV) to POET Biorefining-Portland LLC (you) under Section 113(a) of the Clean Air Act, 42 U.S.C. § 7413(a). We find that you have violated the Title V permit conditions and Indiana State Implementation Plan at your Portland, Indiana facility.

Section 113 of the Clean Air Act gives us several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

We are offering you an opportunity to confer with us about the violations alleged in the NOV/FOV. The conference will give you an opportunity to present information on the specific findings of violation, any efforts you have taken to comply and the steps you will take to prevent future violations. In addition, in order to make the conference more productive, we encourage you to submit to us information responsive to the NOV/FOV prior to the conference date.

Please plan for your facility's technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.

The EPA contact in this matter is Manoj P. Patel. You may call him at (312) 353-3565 or [patel.manojkumar@epa.gov](mailto:patel.manojkumar@epa.gov) to request a conference. You should make the request within 10 calendar days following receipt of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely,



Edward Nam  
Acting Director  
Air and Radiation Division

Enclosure

cc: Phil Perry, Branch Chief  
Office of Air Quality/Compliance & Enforcement Branch  
Indiana Department of Environmental Management  
100 North Senate Avenue  
Indianapolis, Indiana 46204

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5**

<b>IN THE MATTER OF:</b>	)	
	)	
POET Biorefining –Portland LLC	)	<b>NOTICE OF VIOLATION and</b>
Portland, Indiana	)	<b>FINDING OF VIOLATION</b>
	)	<b>EPA-5-16-IN-11</b>
Proceedings Pursuant to	)	
Section 113(a) of the	)	
Clean Air Act, 42 U.S.C.	)	
§ 7413(a)	)	

**NOTICE AND FINDING OF VIOLATION**

The U.S. Environmental Protection Agency (EPA) is issuing this Notice of Violation (NOV) and Finding of Violation (FOV) under Section 113(a) of the Clean Air Act (CAA) 42 U.S.C. § 7413(a). The authority to issue this NOV/FOV has been delegated to the Regional Administrator of EPA Region 5 and redelegated to the Director, Air and Radiation Division. EPA finds that POET-Portland is violating the Indiana State Implementation Plan (SIP), as follows:

**Statutory and Regulatory Background**

1. The CAA is designed to protect and enhance the quality of the nation's air so as to promote the public health and welfare and the productive capacity of its population. *See* Section 101(b)(1) of the CAA, 42 U.S.C. § 7401(b)(1).

**Federally Enforceable State Operating Permits**

2. On June 28, 1989, 54 Fed. Reg. 27274, EPA issued guidance on federally enforceable state operating permits (FESOP) establishing federally enforceable limits.
3. Section 110 of the CAA, 42 U.S.C. § 7410, requires each state to adopt and submit to the Administrator of EPA (Administrator) a plan which provides for the implementation, maintenance and enforcement of all national primary or secondary standards established pursuant to Section 109 of the CAA, 42 U.S.C. § 7409. These SIPs are required to include enforceable emission limitations, control measures, schedules for compliance, and permit programs for new sources.
4. On October 25, 1994, the Indiana Department of Environmental Management (IDEM) submitted to EPA proposed revisions to the Indiana SIP to establish a FESOP program (set forth at Ind. Admin. Code tit. 326, r. 2-8).
5. On August 18, 1995, 60 Fed. Reg. 43008, EPA approved the Indiana FESOP program, Ind. Admin. Code tit. 326, r. 2-1-3.2 and Indiana's Enhanced New Source Review (NSR) regulation, Ind. Admin. Code tit. 326, r. 2-8-4, as part of the federally enforceable Indiana SIP, effective October 17, 1995. *See* 40 C.F.R. § 52.770 (c)(97)-(98).

6. Ind. Admin. Code tit. 326, r. 2-8-4(1) requires that all FESOP permits contain emission limitations and standards assuring compliance with all applicable requirements in effect at the time of the FESOP issuance.
7. Ind. Admin. Code tit. 326, r. 2-8-4(5) states that the permittee must comply with all conditions of the FESOP. Noncompliance with any provisions of the FESOP is a grounds for an enforcement action; FESOP termination, revocation and reissuance, or modification; or for denial of a FESOP renewable application.

### **Title V Operating Permits**

8. Section 502(d)(1) of the CAA, 42 U.S.C. § 7661a(d)(1), requires each state to develop and submit to EPA an operating permit program (Title V Permit Program). On December 4, 2001, 66 Fed. Reg. 62969, EPA granted Indiana final approval of its Title V Permit Program, effective November 30, 2001.
9. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), and 40 C.F.R. § 70.7(b), provide that, after the effective date of any permit program approved or promulgated under Title V of the CAA, no source subject to Title V may operate except in compliance with a Title V permit.
10. 40 C.F.R. § 70.3 provides that the requirements of Part 70 apply to any major source located in a state that has received whole or partial approval of its Title V program.
11. On February 20, 2008, 73 Fed. Reg. 9201-9203, EPA approved 326 IAC 8-5-6, fuel grade ethanol production at dry mills, to its volatile organic compounds (VOC) rules as a revision to the Indiana SIP at 40 C.F.R. § 52.770(c)(182).
12. 326 IAC 8-5-6(c)(1) states that the owner or operator of a fuel grade dry mill ethanol production plant shall install and operate a scrubber with an overall control efficiency of not less than 98% percent or resulting in a VOC concentration of not more than 20 parts per million (ppm).
13. On November 14, 2012, IDEM issued Title V Operating Permit No. T075-30802-00032 (Title V Permit) to POET-Portland. Prior to November 14, 2012, the facility operated using the FESOP Permit #F075-22858-00032 issued on September 8, 2006 and which was later revised and renumbered as F075-28068-00032 and issued on September 1, 2009.
14. Part D.2.9 of the FESOP permit required POET-Portland to operate both Regenerative Thermal Oxidizer (RTO) CE009 and Scrubber CE008 to control VOC emissions from the fermentation and distillation processes at all times when these units are in operation in order to comply with the VOC emissions limits in D.2.4.
15. Part D.2.4 of the FESOP permit limits fermentation process VOC emissions to 30.80 lbs/hr from scrubber CE008.

16. Part D.2.2 (c) of the Title V Permit states that the overall efficiency for the Scrubber CE008 (including the capture and destruction efficiency) shall be at least 98%, or the VOC outlet concentration shall not exceed 20 ppmv.
17. Part D.2.1 of the Title V Permit limits fermentation process acetaldehyde emissions to 5.50 lbs/hr from scrubber CE009.
18. Part B.24 of the Title V Permit and 40 C.F.R. § 52.12 provide that, for the purpose of establishing whether or not a person has violated or in violation of any provision or condition of a permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test procedures or methods had been performed.
19. Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3), authorizes the Administrator to initiate an enforcement action whenever, among other things, the Administrator finds that any person has violated or is in violation of a requirement or prohibition of Title V of the CAA, or any rule promulgated, issued or approved under Title V of the CAA.

#### **Factual Background**

20. POET-Portland owns and operates a fuel grade ethanol production dry mill facility at 1542 South 200 West, Portland, Indiana (the facility).
21. The facility includes: two (2) natural gas fired dried distillers grains with solubles dryers, identified as EU025 and EU026, with emissions venting to a RTO (CE009) exhausting to stack SV009; one (1) DDGS fluid bed cooler, identified as EU029, with emissions vented to and controlled by a RTO (CE009); one (1) fermentation process containing five (5) fermenters, identified as EU012 through EU016 and one (1) beer well, identified as EU018, with emissions controlled by a Scrubber (CE008); one mass preparation process consisting of one slurry tank (EU017) and one yeast propagation tank (EU018), with emissions controlled by a Scrubber (CE008); two (2) natural gas fired boilers, identified as EU027 and EU028, each with a rated heat input capacity of 143 million British thermal units (mmBtu) per hour with emissions vented to stacks SV013 and SV014, respectively.
22. On December 20, 2013, EPA issued a Request for Information under Section 114 of the CAA, 42 U.S.C. § 7414, to the POET-Portland facility.
23. On February 27, and March 27, 2014, POET-Portland responded to EPA's Request for Information.
24. Emissions from the fermentation processes are controlled by a packed-bed wet scrubber (CE008). Periods of downtime at the scrubber result in VOC emissions from fermentation being vented to the atmosphere.
25. The following table summarizes scrubber downtime when emissions from the fermentation process were directly vented to the atmosphere.

<b>Date</b>	<b>Scrubber Downtime (Hours)</b>
March 1, 2011	14 hours
October 18, 2011	16 hours
March 6 through 8, 2012	18 hours
May 15, 2012	4 hours
July 9, 2012	8.50 hours

26. On December 18, 2012, POET-Portland performed compliance emissions testing at the inlet and outlet of scrubber CE008. The testing identified an emission rate of 8.38 pounds of VOC per hour, and 4.24 pounds of acetaldehyde per hour. Based on scrubber CE008's actual control efficiency of 98.14%, the uncontrolled emissions from the fermentation processes are at least 451.15 pounds of VOC per hour and 227.95 pounds of acetaldehyde per hour.
27. On November 13, 2012, POET-Portland performed several stack tests on the Scrubber CE008.
28. The November 13, 2012 test results indicated that at Scrubber CE008, the facility had an overall VOC control efficiency of 96.85%, and a VOC concentration of 56.3 ppmv.
29. POET-Portland submitted combustion chamber temperature records for RTO CE009 which showed that 3-hour average temperatures from January 1, 2012 through December 31, 2013 were intermittently below 1648<sup>o</sup>F.

#### Violations

30. From March 1, 2011 through July 9, 2012, POET-Portland operated the fermentation process during scrubber downtime and emitted VOC emissions in excess of the permitted limit of 30.6 lbs/hr as required by its FESOP and subsequently the Title V Permit No. T075-30802-00032, Emission Limit D.2.4, which constitutes a violation of the Indiana SIP, Section 502(a) of the CAA, 42 U.S.C. § 7661(a), and 40 C.F.R. § 70.7(b).
31. From March 1, 2011 through July 9, 2012, POET-Portland operated the fermentation process during scrubber downtime and emitted acetaldehyde emissions in excess of the permitted limit of 5.50 lbs/hr as required by Title V Permit No. T075-30802-00032, Emission Limit D.2.1, which constitutes a violation of the Indiana SIP, Section 502(a) of the CAA, 42 U.S.C. § 7661(a), and 40 C.F.R. § 70.7(b).

32. The November 13, 2012 test results demonstrated that at RTO CE009 did not achieve a VOC control efficiency of 98%, as required by the Title V Permit, Emission Limit D.2.2, which constitutes violation of the Indiana SIP, Section 502(a) of the CAA, 42 U.S.C. § 7661(a), and 40 C.F.R. § 70.7(b).
33. From January 1, 2012 through December 31, 2013, POET-Portland operated RTO CE009 below the required 3-hour average temperature as specified in the Title V Permit, Emission Limit of D.2.9, which constitutes a violation of the Indiana SIP, Section 502(a) of the CAA, 42 U.S.C. § 7661(a), and 40 C.F.R. § 70.7(b).

**Environmental Impact of Violations**

34. VOC pollution causes a variety of health and environmental impacts, such as acid rain, water quality deterioration, and visual impairment. VOC plays a major role in the atmospheric reactions that produce ozone. Breathing ozone contributes to a variety of health problems including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground level ozone also can reduce lung function and inflame lung tissue. Repeated exposure may permanently scar lung tissue.
35. The violations cited above resulted in increased emissions of hazardous air pollutants, particularly acetaldehyde. Acute exposure to acetaldehyde results in irritation of the eyes, skin, and respiratory tract, as well as erythema, coughing, pulmonary edema, and necrosis. Chronic exposure to high levels of acetaldehyde has been linked to effects similar to alcoholism, slight anemia, as well as nasal, trachea, and kidney pathology. EPA lists acetaldehyde as a probable human carcinogen.

Date

6/30/16

  
Edward Nam  
Acting Director  
Air and Radiation Division

CERTIFICATE OF MAILING

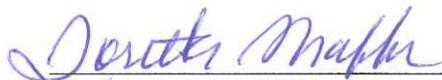
I, Loretta Shaffer, certify that I sent a Notice and Finding of Violation, No. EPA-5-16-IN-11, by Certified Mail, Return Receipt Requested, to:

Matt Tomano, Registered Agent  
POET Biorefining-Portland LLC  
1542 South 200 West  
Portland, Indiana 47371

I also certify that I sent copies of the Notice and finding of Violation by first-class mail to:

Phil Perry, Chief  
Compliance and Enforcement Branch  
Office of Air Quality  
Indiana Department of Environmental  
Management  
100 North Senate Avenue, Room IGCN  
1003  
Indianapolis, Indiana 46206-6015

On the 30 day of June 2016.



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Loretta Shaffer  
Program Technician  
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER: 7009 1480 0000 7673 8057