



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

DEC 03 2014

REPLY TO THE ATTENTION OF:

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

Cliff Brannon  
POET Biorefining - Marion  
1660 Hillman-Ford Road  
Marion, Ohio 43302

Re: Notice of Violation and Finding of Violation  
POET Biorefining – Marion  
Marion, Ohio

Dear Mr. Brannon:

The U.S. Environmental Protection Agency is issuing the enclosed Notice of Violation and Finding of Violation (NOV/FOV) to POET Biorefining - Marion (POET or you) under Sections 113(a)(1) and (a)(3) of the Clean Air Act, 42 U.S.C. § 7413(a)(1) and (a)(3). We find that you are violating the Ohio State Implementation Plan and your Title V Operating Permit at your Marion, Ohio, facility.

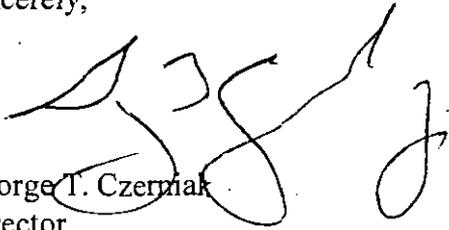
Section 113 of the Clean Air Act gives us several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

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 Eleanor Kane. You may call her at (312) 353-4840 or email her at [kane.eleanor@epa.gov](mailto:kane.eleanor@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,

A handwritten signature in black ink, appearing to read 'G. Czerniak', written over the printed name.

George T. Czerniak  
Director  
Air and Radiation Division

Enclosure

cc: Mark Budge  
Ohio EPA NW District  
Division of Air Pollution Control

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5**

**IN THE MATTER OF:**

POET Biorefining – Marion  
Marion, Ohio

Proceedings Pursuant to  
Sections 113(a)(1) and (a)(3),  
of the Clean Air Act  
42 U.S.C. § 7413(a)(1) and (a)(3)

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)  
) **NOTICE OF VIOLATION**  
) **FINDING OF VIOLATION**  
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) **EPA-5-15- OH-02**  
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**NOTICE AND FINDING OF VIOLATION**

The U.S. Environmental Protection Agency is issuing this Notice of Violation and Finding of Violation (NOV/FOV) to POET Biorefining - Marion (POET or you) to notify you that we have found violations of the Clean Air Act (the Act), 42 U.S.C. §§ 7401-7671q, and its implementing regulations at the facility located at 1660 Hillman-Ford Road, Marion, Ohio (the Facility). The relevant statutory and regulatory background, factual background, finding of violations, and environmental impact of these violations are set forth in detail below.

This NOV/FOV is issued in accordance with Section 113(a)(1) and (a)(3) of the Act, 42 U.S.C. § 7413(a)(1) and (a)(3), which authorize the Administrator to take certain enforcement actions after notifying a person that it is in violation of the Act. The Administrator has delegated the authority to issue this NOV/FOV to the Regional Administrator, who in turn has re-delegated that authority to the Director of the Air and Radiation Division for Region 5 of the EPA.

**Relevant Statutory and Regulatory Background**

**Federally Enforceable State Operating Permit Program**

1. On March 10, 2003, EPA approved Ohio Administrative Code (OAC) Rule 3745-31-05 as part of the federally-enforceable Ohio State Implementation Plan (Ohio SIP). 68 Fed. Reg. 29009.
2. OAC Rule 3734-31-05 authorizes the Ohio Environmental Protection Agency (Ohio EPA) to issue federally-enforceable Permits-to-Install (PTI) and Permits-to-Install and Operate (PTIO) with such terms and conditions as are necessary to ensure compliance with applicable laws and to ensure adequate protection of environmental quality.

**PTI and PTIO Requirements**

3. Ohio EPA issued a PTI, Application No. 03-17303, to the Facility on September 7, 2007, with an effective date of September 7, 2007 (2007 PTI).

4. Emission Unit P007 (P007) Condition A.2.a.i. of the 2007 PTI requires the operation of a wet scrubber with a minimum control efficiency of 95% for volatile organic compounds (VOCs) at P007.
5. Ohio EPA issued a PTIO, No. P0105638, to the Facility on October 26, 2010, with an effective date of October 26, 2010 (2010 PTIO).
6. Condition 2.b)(2)a.i. of the 2010 PTIO requires the operation of a wet scrubber with a minimum control efficiency of 95% for VOCs at P007.
7. Ohio EPA issued a PTIO, No. P0107754, to the Facility on June 29, 2011, with an effective date of June 29, 2011 (2011 PTIO).
8. Condition 3.c)(1)a. of the 2011 PTIO requires the operation of a wet scrubber with a minimum control efficiency of 95% for VOCs at P007.
9. Ohio EPA issued a PTIO, No. P0109343, to the Facility on June 19, 2012, with an effective date of June 19, 2012 (2012 PTIO).
10. Condition 1.b)(1)a. of the 2012 PTIO states that VOC emissions from P007 during downtime of the scrubber shall not exceed 600.00 lbs/hr.

#### Title V Permit Program

11. Title V of the Act, 42 U.S.C. §§ 7661-7661f, established an operating permit program for major sources of air pollution.
12. In accordance with Section 502(b) of the Act, 42 U.S.C. § 7661a(b), the EPA promulgated regulations establishing the minimum elements of a Title V permit program to be administered by any air pollution control agency. See 57 Fed. Reg. 32295 (July 21, 1992). Those regulations are codified at 40 C.F.R. Part 70.
13. Section 502(d) of the Act, 42 U.S.C. § 7661a(d), provides that each state must submit to the EPA a permit program meeting the requirements of Title V.
14. On August 15, 1995, EPA approved the State of Ohio operating permit program with an effective date of October 1, 1995. See 40 C.F.R. Part 70, Appendix A.
15. Section 502(a) of the Act, 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 Act, no source subject to Title V may operate except in compliance with a Title V permit.
16. 40 C.F.R. § 70.6(b)(1) provides that all terms and conditions in a Title V permit are enforceable by the EPA.

## Title V Permit Requirements

17. Ohio EPA issued a Title V Permit, No. P0110387, to the Facility on December 18, 2012, with an effective date of January 8, 2013 (Title V Permit).
18. Condition 4.b)(1)a. of the Title V Permit states that VOC emissions from P007 during downtime of the scrubber shall not exceed 600.00 lbs/hr.
19. Condition 4.b)(1)a. of the Title V Permit states that VOC emissions from P007 during downtime of the scrubber shall not exceed 12.0 tons per year.

### **Relevant Factual Background**

20. POET owns and operates an ethanol production plant located at 1660 Hillman-Ford Road, Marion, Ohio (the Facility).
21. The Facility describes P007 as “ethanol production operations,” including a slurry tank, five fermenters, a yeast prop tank, a beer well, a beer stripper, a rectifier column, a side stripper, molecular sieves, and evaporators.
22. Emissions from P007 are controlled by a scrubber and a regenerative thermal oxidizer (RTO) in series.
23. Periods of downtime at the scrubber result in emissions from P007 being vented to the atmosphere. As a result, the VOC loading rate at the scrubber is the VOC emission rate from P007 during periods of scrubber downtime.
24. In December 2011, POET conducted a performance test at the inlet of the scrubber (2011 Performance Test).
25. The 2011 Performance Test identified a VOC loading rate to the scrubber of 451 pounds VOC (as propane) per hour using Methods 1-3, a Method 4 equivalent method, and Method 25A.
26. Compliance with total VOC emission limits requires conversion of VOC “as propane” emission data through use of the conversion factors of 1.22 pounds of propane per pound of carbon and 1.92 pounds of VOC (assumed to be ethanol) per pound of carbon.
27. Applying the conversion factors from paragraph 26, above, to the VOC loading rate to the scrubber results in an actual VOC loading rate of 710 pounds of total VOCs per hr.

28. The following table summarizes scrubber downtime when emissions from P007 were directly vented to the atmosphere.

Year	Scrubber Downtime (hours)
2009 <sup>1</sup>	7.0
2010	28.3
2011	33.5
2012	15.6
2013	37.9
2014 <sup>2</sup>	15.9

Notes: 1. Starting April 12, 2009  
2. Ending February 25, 2014

29. Based on the VOC loading rate to the scrubber (the emission rate during scrubber downtime) and the number of hours of scrubber downtime in 2013, the Facility emitted 15.4 tons of VOCs in 2013.

#### **Finding of Violations**

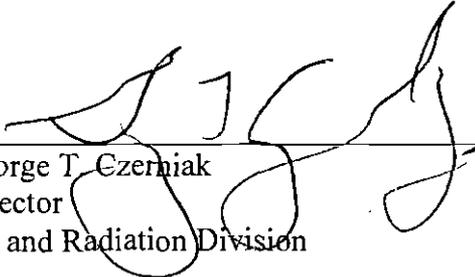
30. POET operated P007 during scrubber downtime from April 12, 2009, through September 20, 2010, in violation of P007 Condition A.2a.i. of the 2007 PTI.
31. POET operated P007 during scrubber downtime from September 20, 2010, through June 29, 2011, in violation of P007 Condition 2.b)(2)a.i. of the 2010 PTIO.
32. POET operated P007 during scrubber downtime from June 29, 2011, through June 19, 2012, in violation of P007 Condition 3.c)(1)a. of the 2011 PTIO.
33. VOC emissions from P007 exceeded 600.00 lbs/hr during periods of scrubber downtime from June 19, 2012 to January 7, 2013, in violation of Condition 1.b)(1)a. of the 2012 PTIO.
34. VOC emissions from P007 exceeded 600.00 lbs/hr during periods of scrubber downtime from January 8, 2013 to the present, in violation of Condition 4.b)(1)a. of the Title V Permit.
35. In calendar year 2013, total VOC emissions from P007 during periods of scrubber downtime exceeded 12 tons, in violation of Condition 4.b)(1)a. of the Title V Permit.

**Environmental and Health Impacts of Violations**

- 36. The violations cited above at P007 resulted in increased emissions of VOCs. VOCs are photochemical oxidants associated with a number of detrimental health, environmental, and ecological effects. In the presence of sunlight, and influenced by a variety of meteorological conditions, VOCs react with oxygen in the air to produce ground-level ozone.
- 37. The violations cited above at P007 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

12/3/19

  
George T. Czerniak  
Director  
Air and Radiation Division

**CERTIFICATE OF MAILING**

I, Loretta Shaffer, certify that I sent a Notice of Violation and Finding of Violation, No. EPA-5-15-OH-02 by Certified Mail, Return Receipt Requested, to:

Cliff Brannon  
General Manager  
POET Biorefining - Marion  
1660 Hillman-Ford Road  
Marion, Ohio 43302

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

Mark Budge  
Ohio EPA/DAPC  
Northwest District Office  
347 N Dunbridge Rd  
Bowling Green, OH 43402

Robert Hodanbosi, Chief  
Division of Air Pollution Control  
Ohio Environmental Protection Agency  
Lazarus Government Center  
PO Box 1049  
Columbus, Ohio 43216

On the 4<sup>th</sup> day of December 2014.



<sup>31</sup> Loretta Shaffer, Program Technician  
AECAB, PAS

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