



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

AUG 20 2015

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

David R. Gloer
General Manager
POET Biorefining - Caro
1551 Empire Drive
Caro, Michigan 48708

Re: Administrative Consent Order, EPA-5-14-113(a)-MI-05

Dear Mr. Gloer,

Enclosed is an executed original of the Administrative Consent Order regarding the above captioned case. If you have any questions about the Order, please contact me at (312) 886-6797.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sarah Marshall".

Sarah Marshall
Chief
Air Enforcement and Compliance Assurance Section (MI/WI)

Enclosure:

cc: Chris Hare, Michigan Department of Environmental Quality

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

In the Matter of:) EPA-5-15-113(a)-MI-05
)
Michigan Ethanol, LLC) Proceeding Under Section 113(a)(3)
d/b/a POET Biorefining - Caro) of the Clean Air Act, 42 U.S.C. §§ 7413(a)(3)
Caro, Michigan) and 7414(a)
_____)

Administrative Consent Order

1. The Director of the Air and Radiation Division, U.S. Environmental Protection Agency (EPA), Region 5, is issuing this Order to Michigan Ethanol, LLC, doing business as POET Biorefining - Caro (POET), under Sections 113(a) and 114(a) of the Clean Air Act (CAA), 42 U.S.C. §§ 7413(a), 7414(a).

Statutory and Regulatory Background

Title V Permit Program

2. Title V of the CAA, 42 U.S.C. §§ 7661-7661f, established an operating permit program for major sources of air pollution.

3. In accordance with Section 502(b) of the CAA, 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.

4. Section 502(d) of the CAA, 42 U.S.C. § 7661a(d), provides that each state must submit to the EPA a permit program meeting the requirements of Title V.

5. On December 4, 2001, EPA approved the State of Michigan Title V operating permit program with an effective date of November 30, 2001. See 40 C.F.R. Part 70, Appendix A; 66 Fed. Reg. 62949 (December 4, 2001).

6. 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.

7. 40 C.F.R. § 70.6(b)(1) provides that all terms and conditions in a Title V permit are enforceable by the EPA.

POET Permit Requirements

8. The Michigan Department of Environmental Quality (MDEQ) issued Renewable Operating Permit No. MI-ROP-N6996-2008 to POET for the Caro, Michigan, facility (the Facility) with an effective date of August 25, 2008 (2008 Title V Permit). MDEQ issued modifications to the permit on June 4, 2009, and April 23, 2012.

9. MDEQ renewed the permit by issuing Renewable Operating Permit No. MI-ROP-N6996-2013 to the Facility with an effective date of September 25, 2013 (2013 Title V Permit).

10. For FG FERMENTERS, Condition IV.1 of the 2008 Title V Permit states that POET shall not operate any equipment in FG FERMENTERS “unless the scrubber (CE004) and chiller are installed, maintained and operated in a satisfactory manner.”

11. For FG FERM&DIST, Condition IV.2 of the 2013 Title V Permit states that POET shall not operate any equipment in FG FERM&DIST “unless the scrubber (CE004) is installed, maintained and operated in a satisfactory manner.”

12. For FG FERMENTERS, Condition I.1 of the 2008 Title V Permit limits volatile organic compound (VOC) emissions to 12.0 pounds per hour and acetaldehyde emissions to 0.67 pounds per hour.

13. For FG FERM&DIST, Condition I.1 of the 2013 Title V Permit limits VOC emissions to 14.0 pounds per hour and acetaldehyde emissions to 0.67 pounds per hour.

14. General Condition 24 of the 2008 Title V Permit requires POET to report annually the actual emissions of each regulated air pollutant for each emission unit.

15. General Condition 24 of the 2013 Title V Permit requires POET to report annually the actual emissions of each regulated air pollutant for each emission unit.

Findings

16. POET owns and operates an ethanol production plant located at 1551 Empire Drive, Caro, Michigan (the Facility).

17. In the 2008 Title V Permit, the Facility describes FG FERMENTERS as including six fermenters and a beer well.

18. In the 2013 Title V Permit, the Facility describes FG FERM&DIST as “fermentation and distillation operations,” including six fermenters, a beer well, a beer stripper, a rectifier, a side stripper, a molecular sieve, a yeast tank, and an evaporator.

19. Emissions from the fermentation and distillation operations are controlled by a packed-bed wet scrubber (CE004). Periods of downtime at the scrubber result in emissions from fermentation and distillation being vented to the atmosphere.

20. In January 2013, POET performed emissions testing at the outlet of the FG FERM&DIST scrubber. The testing identified an emission rate of 8.95 pounds of VOC per hour, and 0.53 pounds of acetaldehyde per hour. Based on an estimated control efficiency of

97%, as required by the 2013 Title V Permit, the uncontrolled emissions from FG FERM&DIST are at least 298 pounds of VOC per hour and 17.67 pounds of acetaldehyde per hour.

21. In February 2006, POET performed emissions testing at the Fluidized Bed Cooler (EU FBCOOLER). The testing identified an emission rate of 0.58 pounds VOC “as carbon” per hour. Using a conversion factor of 1.92 pounds of VOC per pound of carbon, the emission rate for the unit is estimated to be 1.11 pounds of VOC per hour. In January 2013, POET performed additional emissions testing at the EU FBCOOLER. The testing identified an emission rate of 2.36 pounds of VOC per hour.

22. In the Michigan Annual Emission Reporting System (MAERS) Reports for 2009, 2010, 2011, 2012, and 2013, POET reports operating the EU FBCOOLER for 8760 hours in each year.

23. The VOC emissions for EU FBCOOLER were 4.9 tons per year in 2009, 2010, 2011, and 2012, and were 10.3 tons per year in 2013. POET reported zero emissions of VOCs for the unit in each of these years.

24. In February 2006, POET performed emissions testing at the thermal oxidizer (TO) and the regenerative thermal oxidizer (RTO) serving the dried distiller’s grains with solubles (DDGS) dryers and centrifugation (FG DDGSDRYERS). During the testing, both the TO and the RTO were operating and were sampled at the same time. The testing identified an emission rate of 0.37 pounds of VOC per hour from the TO and an emission rate of 1.91 pounds of VOC per hour from the RTO. In January 2013, additional testing identified an emission rate of 0.94 pounds of VOC per hour from the TO and an emission rate of 1.40 pounds of VOC per hour from the RTO.

25. Based on TO and RTO operating data submitted to EPA by POET, during 2012, the TO and the RTO operated for 7975 hours. During the remaining 785 hours of the year, the dryers were reportedly down. In 2013, the TO and the RTO operated for 8220 hours. During the remaining 540 hours of the year, the dryers were reportedly down.

26. Using operational data and established emissions factors, combined actual VOC emissions from the TO and RTO were 9.3 tons in 2012 and 9.6 tons in 2013. In the MAERS Reports, POET reported combined VOC emissions of 4.7 tons from the TO and RTO controlling the DDGSDRYERS in 2012 and 2013.

27. On February 5, 2015, EPA issued POET a Finding of Violation (FOV) alleging that it violated provisions of its Title V Permit by operating FG FERMENTERS and FG FERM&DIST during scrubber downtime from January 1, 2010, through May 12, 2014, and by exceeding the emission limits for VOC and for acetaldehyde established for these units. In addition, the FOV alleged that, from 2009 through 2013, POET failed to accurately report annual VOC emissions for the RTO and TO controlling the DDGS DRYERS, and for the EU FBCOOLER, in violation of Title V permit conditions.

28. On March 5, 2015, representatives of POET and the EPA discussed the February 5, 2015, FOV.

Compliance Program

29. By one year after the effective date of this Order, POET must achieve, demonstrate, and maintain compliance with its operating permit at its Caro, Michigan, facility.

30. On or before October 1, 2015, POET must apply for a permit modification from MDEQ requesting that, when the scrubber controlling emissions from the fermenters and

distillation units (CE004) is bypassed or is not operational for any reason, all emissions from the fermenters and distillation operations are routed directly to the RTO and/or TO.

31. Within 60 days after the approval of the modification by MDEQ, POET must modify the existing ductwork at the fermentation and distillation units such that, when the scrubber controlling emissions (CE004) is bypassed or is not operational for any reason, all emissions from those units are routed directly to the RTO and/or TO.

32. Within 30 calendar days following completion of the modification described in Paragraph 31, above, POET must send a notification to EPA containing any plans, contracts, work orders or receipts for the work, evidence of the work completed (such as photographs or other documentation), and a narrative description of the modification.

33. Within 65 calendar days after the completion of the modification described in Paragraph 31 above, POET must test the emissions from the RTO and TO under conditions when the scrubber is not operating. Testing at the RTO and TO shall determine both the VOC emission rate and the VOC destruction efficiency by sampling at the inlet and outlet while operating at maximum capacity and under representative conditions using either Method 18 or Method 320, and Method 25 or 25A. Within 30 days of completing the testing, POET must send EPA a complete copy of the testing results.

34. POET must send all reports required by this Order to:

Attention: Compliance Tracker (AE-17J)
Air Enforcement and Compliance Assurance Branch
U.S. Environmental Protection Agency, Region 5
77 W. Jackson Boulevard
Chicago, Illinois 60604

General Provisions

35. This Order does not affect POET's responsibility to comply with other federal, state and local laws.

36. This Order does not restrict EPA's authority to enforce the Michigan SIP, the Facility's permits, or any other section of the CAA.

37. Nothing in this Order limits the EPA's authority to seek appropriate relief, including penalties, under Section 113 of the CAA, 42 U.S.C. § 7413, for POET's violation of its Title V Permits.

38. Failure to comply with this Order may subject POET to penalties of up to \$37,500 per day for each violation under Section 113 of the CAA, 42 U.S.C. § 7413, and 40 C.F.R. Part 19.

39. This Order is binding on POET, its assignees and successors. POET must give notice of this Order to any successors in interest prior to transferring ownership and must simultaneously verify to EPA, at the above address, that it has given the notice.

40. POET may assert a claim of business confidentiality under 40 C.F.R. Part 2, Subpart B, for any portion of the information submitted to EPA. Information subject to a business confidentiality claim is available to the public only to the extent allowed by 40 C.F.R. Part 2, Subpart B. If POET fails to assert a business confidentiality claim, EPA may make all submitted information available, without further notice, to any member of the public who requests it. Emission data provided under Section 114 of the CAA, 42 U.S.C. § 7414, is not entitled to confidential treatment under 40 C.F.R. Part 2, Subpart B. "Emission data" is defined at 40 C.F.R. § 2.301.

41. EPA may use any information submitted under this Order in an administrative, civil judicial, or criminal action.

42. POET agrees to this Order.

43. This Order is effective on the date of signature by the Director of the Air and Radiation Division. This Order will terminate one year from the effective date, provided that

POET has complied with all terms of the Order throughout its duration.

8/12/15
Date

[Signature]
David Gloer
General Manager
POET Biorefining – Caro

8/20/15
Date

[Signature]
George T. Czerniak
Director
Air and Radiation Division
U.S. Environmental Protection Agency, Region 5

CERTIFICATE OF MAILING

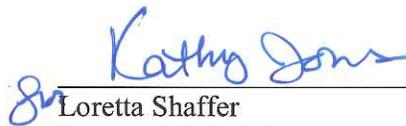
I, Loretta Shaffer, certify that I sent the Administrative Consent Order, EPA-5-15-113(a)-MI-05 by certified mail, return receipt requested, to:

David R. Gloer
General Manager
POET Biorefining - Caro
1551 Empire Drive
Caro, Michigan 48723

I also certify that I sent a copy of the Administrative Consent Order, EPA-5-15-113(a)-MI-05, by first-class mail to:

Chris Hare, Supervisor
Air Quality Division
Michigan Department of Environmental Quality
401 Ketchum Street, Suite B
Bay City, Michigan 48708

On the 26th day of August 2015.



Loretta Shaffer
Program Technician
AECAB, PAS

CERTIFIED MAIL RECEIPT
NUMBER:

7014 2870 0001 9580 4701