



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

DEC 30 2015

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mark Wellner
Ethanol 2000 LLP d/b/a
POET Biorefining - Bingham Lake
RR 1
Bingham Lake, Minnesota 56118

Re: Notice and Finding of Violation
POET Biorefining – Bingham Lake
Bingham Lake, Minnesota

Dear Mr. Wellner:

The U.S. Environmental Protection Agency (EPA) is issuing the enclosed Notice of Violation and Finding of Violation (NOV/FOV) to Ethanol 2000 LLP, doing business as POET Biorefining – Bingham Lake (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 have violated and are violating conditions of your federally enforceable state operating permit and your Title V Operating Permit at your Bingham Lake, Minnesota, facility.

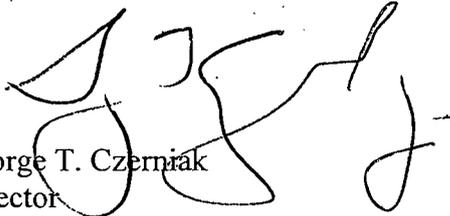
Section 113 of the Clean Air Act gives us several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order, and bringing a judicial civil or criminal action.

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 Dakota Prentice. You may call him at (312) 886-6761 or email him at prentice.dakota@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 a circular stamp or mark.

George T. Czerniak
Director
Air and Radiation Division

Enclosure

cc: Katie Koelfgen, Minnesota Pollution Control Agency

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

IN THE MATTER OF:)	
)	
Ethanol 2000 LLP, d/b/a)	NOTICE OF VIOLATION AND
POET Biorefining – Bingham Lake)	FINDING OF VIOLATION
)	
Proceedings Pursuant to)	
Sections 113(a)(1) and (a)(3))	EPA-5-16-MN-03
of the Clean Air Act)	
42 U.S.C. §§ 7413(a)(1) and (a)(3))	
)	

NOTICE OF VIOLATION AND FINDING OF VIOLATION

The U.S. Environmental Protection Agency (EPA) is issuing this Notice of Violation and Finding of Violation (NOV/FOV) to Ethanol 2000 LLP doing business as POET Biorefining – Bingham Lake (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 ethanol production plant located at RR 1, Bingham Lake, Minnesota (the Facility). The relevant statutory and regulatory background, factual background, findings of violation, and the environmental impact of these violations are set forth in detail below.

This NOV/FOV is issued in accordance with Sections 113(a)(1) and (a)(3) of the Act, 42 U.S.C. §§ 7413(a)(1) and (a)(3), which authorizes 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. Section 110 of the Act, 42 U.S.C. § 7410, requires each state to adopt and submit to EPA for approval a State Implementation Plan (SIP) that provides for the implementation, maintenance, and enforcement of the National Ambient Air Quality Standards (NAAQS).
2. On May 24, 1995, EPA approved Minnesota Administrative Rules (MAR) 7007.0050 through 7007.1850 as part of the federally-enforceable Minnesota SIP. 60 Fed. Reg. 27411.
3. MAR 7007.0050 through 7007.1850 authorize the Minnesota Pollution Control Agency (MPCA) to issue federally-enforceable state operating permits (FESOPs) with such terms and conditions as are necessary to ensure compliance with applicable laws and to ensure adequate protection of environmental quality.

4. Section 113(a)(1) of the Act, 42 U.S.C. § 7413(a)(1), 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 an applicable implementation plan or permit.

POET FESOP Requirements

5. The MPCA issued Air Emission Permit No. 03300025-004 to the Facility with an effective date of November 5, 1999 (1999 Permit). The 1999 Permit was in effect at the Facility through August 13, 2013.
6. For the group of emission units classified as SV 003 and controlled by the fermentation scrubber (CE 003), the 1999 Permit states that the water flow rate at the fermentation scrubber (CE 003) shall be greater than or equal to 30 gallons per minute (gpm)
7. For the group of emission units classified as SV 003 and controlled by the fermentation scrubber (CE 003), the 1999 Permit states that the pressure drop at the fermentation scrubber (CE 003) shall be greater than or equal to 4 inches of water column (in. W.C.) and less than or equal to 10 in. W.C.
8. For the group of emission units classified as SV 010 and controlled by the distillation scrubber (CE 010), the 1999 Permit states that the pressure drop at the distillation scrubber (CE 010) shall be greater than or equal to 4 in. W.C. and less than or equal to 10 in. W.C.
9. For the fermentation scrubber (CE 003) and distillation scrubber (CE 010), the 1999 Permit states that if the pressure drop and/or water flow rate are outside the ranges specified in the permit, the Permittee shall take corrective action as soon as possible to achieve the required operating values and shall record the type and date of all corrective actions taken.

Title V Permit Program

10. Title V of the Act, 42 U.S.C. §§ 7661-7661f, established an operating permit program for major sources of air pollution.
11. 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.
12. 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.
13. On December 4, 2001, EPA provided full and final approval for the State of Minnesota Title V operating permit program. See 40 C.F.R. Part 70, Appendix A; 66 Fed. Reg. 62967 (December 4, 2001).

14. 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.
15. 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 Title V Permit Requirements

16. MPCA issued a Title V Permit, Air Emission Permit No. 03300025-006, to the Facility with an effective date of August 14, 2013 (Title V Permit). This permit remains in effect.
17. For the group of emission units classified as SV 003 and controlled by the fermentation scrubber (CE 003), the Title V Permit states that, "The Permittee shall vent emissions from EU025 - EU028, EU043, EU045, EU064 and EU065 to associated scrubber CE 003 at all times that any emission unit controlled by the scrubber is in operation."
18. For the group of emission units classified as SV 010 and controlled by the distillation scrubber (CE 010), the Title V Permit states that, "The Permittee shall vent emissions from EU009, EU010, EU011, EU012, EU014, EU031, EU034, EU038, EU050, EU054 and EU055 to the associated scrubber (CE 010) all times that any emission unit controlled by the scrubber is in operation."
19. For the fermentation scrubber (CE 003), the Title V Permit states that the minimum water flow rate shall be greater than 35 gpm when the CO₂ recovery plant is offline and greater than 20 gpm when the CO₂ recovery plant is online.
20. For the fermentation scrubber (CE 003), the Title V Permit states that the pressure drop at the scrubber shall be between 2 in. W.C. and 12 in. W.C.
21. For the fermentation scrubber (CE 003), the Title V Permit states that if the pressure drop and/or water flow rate are outside the range specified in the permit, the Permittee shall take corrective action as soon as possible to achieve the required operating values and shall record the type and date of all corrective actions taken.
22. For the distillation scrubber (CE 010), the Title V Permit states that the pressure drop at the scrubber shall be between 2 in. W.C. and 12 in. W.C.
23. For the distillation scrubber (CE 010), the Title V Permit provides that if the pressure drop is outside the range specified in the permit, the Permittee shall take corrective action as soon as possible to achieve the required operating values and shall record the type and date of all corrective actions taken.

Relevant Factual Background

24. POET owns and operates an ethanol production plant located at RR 1, Bingham Lake, Minnesota (the Facility).

25. EPA issued an information request to the Facility under Section 114 of the Act, dated May 4, 2015 (2015 Information Request).
26. POET provided responses to the 2015 Information Request in a letter dated July 13, 2015.
27. The fermentation scrubber (CE 003) controls emissions from fermentation operations at the Facility. A portion of the emissions exiting the fermentation scrubber are routed to a CO₂ recovery plant (CO₂ Plant). Periods of downtime at the scrubber result in emissions from fermentation being vented to the atmosphere.
28. A scrubber (CE 010) controls emissions from distillation operations at the Facility. Periods of downtime at the scrubber result in emissions from distillation being vented to the atmosphere.
29. The following table summarizes differential pressure data at the fermentation scrubber (CE 003) for the period from January 1, 2011, through August 13, 2013:

Year	Deviations (<4 or >10 in. W.C.)	Total Recordings	Percent
2011	25	365	6.8%
2012	51	365	14.0%
2013	9	225	4.0%

30. The following table summarizes differential pressure data at the fermentation scrubber (CE 003) for the period from August 14, 2013, through May 31, 2015:

Year	Deviations (<2 or >12 in. W.C.)	Total Recordings	Percent
2013	1	140	0.7%
2014	99	365	27.1%
2015	30	151	19.9%

31. The following table summarizes differential pressure data at the distillation scrubber (CE 010) for the period from January 1, 2013, through August 13, 2013:

Year	Deviations (>10 in. W.C.)	Total Recordings	Percent
2013	36	225	16%

32. The following table summarizes differential pressure data at the distillation scrubber (CE 010) for the period from January 1, 2014, through May 31, 2015:

Year	Deviations (>12 in. W.C.)	Total Recordings	Percent
2014	38	365	10.4%
2015	43	151	28.5%

33. During times when the differential pressures at the fermentation scrubber (CE 003) and distillation scrubber (CE 010) were outside the established range, POET did not take corrective action as soon as possible to achieve the required operating values, nor did it keep a record of the type and date of any corrective actions taken.

34. The following table summarizes operations data for the period from January 1, 2011, through August 13, 2013, when a single water flow rate applied to the fermentation scrubber (CE 003):

Year	Deviations (<30 gpm)	Total Recordings	Percent
2011	51	365	14.0%
2012	28	365	7.7%
2013	30	225	13.3%

35. From August 14, 2013, through May 31, 2015, the applicable water flow rate at the fermentation scrubber (CE 003) depended on whether the CO₂ Plant was in operation. The following tables summarize operations data for each scenario:

Water Flow Deviations When CO₂ Plant in Operation			
Year	Deviations (<20 gpm)	Total Recordings	Percent
2013	4	112	3.6%
2014	4	291	1.4%

Water Flow Deviations When CO₂ Plant not in Operation			
Year	Deviations (<35 gpm)	Total Recordings	Percent
2013	12	28	42.8%
2014	26	65	40.0%
2015	36	38	94.7%

36. During times when the water flow rate at the fermentation scrubber (CE 003) was not equal to or greater than the minimum value, POET did not take corrective action as soon as possible to achieve the required operating values, nor did it keep a record of the type and date of any corrective actions taken.
37. The following table summarizes scrubber (CE 003) downtime when emissions from fermentation operations were directly vented to the atmosphere:

Year	Scrubber Downtime (hours)
2013 ¹	101.52
2014	155.65
2015 ²	37.67

¹ From August 14 through December 31, 2013

² From January 1 through May 31, 2015

38. The following table summarizes scrubber (CE 010) downtime when emissions from distillation operations were directly vented to the atmosphere:

Year	Scrubber Downtime (hours)
2014	1.5
2015 ³	2.73

Notice of Violation and Finding of Violations

39. From January 1, 2011, through May 31, 2015, POET routinely failed to maintain the differential pressure at the fermentation scrubber (CE 003) within the established operating limits in violation of the 1999 Permit and the Title V Permit.
40. From January 1, 2013, through May 31, 2015, POET routinely failed to maintain the differential pressure at the distillation scrubber (CE 010) within the established operating limits, in violation of the 1999 Permit and the Title V Permit.
41. From January 1, 2011, through May 31, 2015, POET routinely failed to maintain the water flow rate at the fermentation scrubber (CE 003) within the established operating limits, in violation of the 1999 Permit and the Title V Permit.
42. From January 1, 2011, through May 31, 2015, POET failed to take corrective action as soon as possible and record the type and date of the corrective action for deviations from established differential pressure and water flow rate operating ranges at the fermentation scrubber (CE 003), in violation of the 1999 Permit and Title V Permit.
43. From January 1, 2011, through May 31, 2015, POET failed to take corrective action as soon as possible and record the type and date of the corrective action for deviations from established differential pressure ranges at the distillation scrubber (CE 010), in violation of the 1999 Permit and Title V Permit.
44. POET operated fermentation units during downtime at the fermentation scrubber (CE 003) from August 14, 2013, through May 31, 2015, in violation of the Title V Permit.
45. POET operated distillation units during downtime at the distillation scrubber (CE 010) from August 14, 2013, though May 31, 2015, in violation of the Title V Permit.

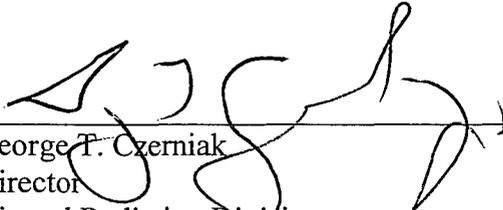
Environmental and Health Impacts of Violations

46. The violations cited above 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

³ From January 1 through May 31, 2015

meteorological conditions, VOCs react with oxygen in the air to produce ground-level ozone.

12/30/15
Date


George T. Czerniak
Director
Air and Radiation Division

CERTIFICATE OF MAILING

I, Kathy Jones, certify that I sent a Notice of Violation and Finding of Violation, No. EPA-5-16-MN-03 by Certified Mail, Return Receipt Requested, to:

Mark Wellner
Plant Engineer
Ethanol 2000 LLP d/b/a
POET Biorefining - Bingham Lake
RR 1
Bingham Lake, Minnesota 56118

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

Katie Koelfgen
Manager, Land and Air Compliance
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

On the 30 day of December 2015.

A handwritten signature in black ink, appearing to read 'KJM for', written over a horizontal line.

Kathy Jones, Program Technician
AECAB, PAS