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

MAR 1 5 2019

REPLY TO THE ATTENTION OF

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Lisa Landkammer
Environmental Health & Safety Manager
Highwater Ethanol, LLC
24500 US Highway 14
Lamberton, Minnesota 56152

Re: Notice and Finding of Violation
Highwater Ethanol, LLC
Lamberton, Minnesota

Dear Ms. Landkammer:

The U.S. Environmental Protection Agency is issuing the enclosed Notice and Finding of Violation (NOV/FOV) to Highwater Ethanol, LLC, (Highwater or you) under Sections 113(a)(1) and (3) of the Clean Air Act, 42 U.S.C. §§ 7413(a)(1) and (3). We find that you have violated the Clean Air Act ("the Act") and certain associated federal and state pollution control regulations.

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 Gregory Gehrig. You may call him at (312) 886-4434 or email him at gehrig.greg@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
Director
Air and Radiation Division

Enclosure

cc: Sarah Kilgriff, Minnesota Pollution Control Agency

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:	)	
	)	
Highwater Ethanol, LLC	)	**NOTICE OF VIOLATION and**
Lamberton, Minnesota	)	**FINDING OF VIOLATION**
	)	
	)	
	)	**EPA-5-19-MN-02**
Proceedings Pursuant to	)	
the Clean Air Act	)	
42 U.S.C.§ § 7401 et seq.	)	

NOTICE AND FINDING OF VIOLATION

Highwater Ethanol, LLC owns and operates an ethanol manufacturing facility at 24500 US Highway 14, Lamberton, Minnesota (Highwater or the facility). At the facility, Highwater manufactures denatured ethanol and both wet and dried distiller's grain.

The U.S. Environmental Protection Agency is sending this Notice of Violation and Finding of Violation (NOV/FOV or Notice) to notify you that we have found violations of conditions specified in your Title V Air Emission Permit No. 12700053-003, the Minnesota State Implementation Plan (Minnesota SIP) as incorporated into your Title V permit, and the National Emission Standards for Hazardous Air Pollutants (NESHAP) at 40 C.F.R. Part 63, Subpart FFFF for Miscellaneous Organic Chemical Manufacturing.

Statutory and Regulatory Background

This NOV/FOV is based on the following statutory and regulatory provisions:

Clean Air Act

1. The Clean Air Act (the Act) 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. Section 101(b)(1) of the Act, 42 U.S.C. § 7401(b)(1).

Minnesota State Implementation Plan (Minnesota SIP) and Permit Conditions

2. EPA delegated to the Minnesota Pollution Control Agency (MPCA) the authority to issue federally-enforceable operating permits under Title V of the Act, 42 U.S.C. §§ 7661 et seq., as part of the Minnesota SIP (*See* 60 Fed. Reg. 21447, May 2, 1995 and 40 C.F.R. Part 70). The Minnesota Title V permitting process is codified in Minnesota Administrative Rules (Minn. R.) Chapter 7007 Air Emissions Permits. The Minnesota SIP includes Minn. R. 7007.0800.16(J) (*See* 40 C.F.R. § 1220(c)).

3. On February 14, 2012, MPCA issued Air Emission Permit No. 12700053-002 to Highwater, which was superseded by a Major Permit Amendment, Air Emission Permit No. 12700053-003, issued on September 15, 2014, (Permit) pursuant to Minn. R. Chapter 7007.

4. Total Facility Permit condition No. 6 on Permit page A-1 limits the emissions of any single hazardous air pollutant (HAP) to 9.0 tons per year (TPY) using a 12-month Rolling Sum.

5. Total Facility Permit conditions Nos. 9 and 14 on Permit pages A-1 and A-2 require compliance with Minn. R. 7007.0800.16(J). Minn. R. 7007.0800.16(J) requires Highwater to properly operate and maintain the facilities and systems of treatment and control and the appurtenances related to them which are installed or used to achieve compliance with the Permit.

6. GP 004 Fermentation Units Controlled by Gas Scrubber CE003 (Fermentation Units) Permit condition No. 1 on Permit page A-9 limits emissions of volatile organic compounds (VOC) to 10 pounds per hour (lb/hr) using 3-hour average from this process.

7. Fermentation Units Permit condition No. 5 on Permit page A-9 requires all emissions from this process be vented to the carbon dioxide (CO2) scrubber.

8. Fermentation Units Permit condition No. 6 on Permit page A-9 requires Highwater maintain a pressure drop greater than or equal to 4.0 inches of water column for the CO2 scrubber.

9. Fermentation Units Permit condition No. 8 on Permit page A-9 requires greater than or equal to 1.25 gallons per hour (gph) of additive for the CO2 scrubber.

10. Fermentation Units Permit condition No. 15 on Permit page A-10 requires corrective actions if the CO2 scrubber pressure drop or additive flow rate is below the specified range.

Section 112 of the Act, National Emission Standards for Hazardous Air Pollutants

11. Section 112 of the Act, 42 U.S.C. § 7412, requires EPA to promulgate a list of all categories and subcategories of new and existing "major sources" and "area sources" of HAPs and establish emissions standards for the categories and subcategories. These emission standards are known as the NESHAP. EPA codified these standards at 40 C.F.R. Parts 61 and 63.

12. "Major source" is defined as "any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit

considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants."
42 U.S.C. § 7412(a)(1).

13. "Stationary source" is defined as "any building, structure, facility, or installation, which emits or may emit any air pollutant." 42 U.S.C. § 7411(a)(3).

14. "Hazardous air pollutant" is defined as "any air pollutant listed in or pursuant to" Section 112(b) of the Act. 42 U.S.C. § 7412(a)(6).

15. Section 112(i)(3) of the Act, 42 U.S.C. § 7412(i)(3), prohibits any person subject to a NESHAP from operating a source in violation of a NESHAP after its effective date. See also 40 C.F.R. §§ 61.05 and 63.4.

NESHAP Subpart FFFF. Miscellaneous Organic Chemical Manufacturing

16. NESHAP Subpart FFFF at 40 C.F.R. § 63.2435 states that "you are subject to the requirements in this subpart if you own or operate miscellaneous organic chemical manufacturing process units (MCPU) that are located at, or are part of, a major source of HAP emissions as defined in section 112(a) of the [Act]."

17. NESHAP Subpart FFFF at 40 C.F.R. § 63.2540 and Table 12 to Subpart FFFF detail the general provisions found in 40 C.F.R. § 63 Subpart A applicable to facilities subject to Subpart FFFF, including but not limited to Startup, Shutdown and Malfunction Plan requirements in 40 C.F.R. § 63.6(e).

18. NESHAP Subpart FFFF at 40 C.F.R. § 63.2515(b) requires subject facilities to submit an Initial Notification as specified in 40 C.F.R. § 63.9(b)(2).

19. NESHAP Subpart FFFF at 40 C.F.R. § 63.2515(c) requires subject facilities to submit a Notification of a Performance Test(s) as required in 40 C.F.R. § 63.7.

20. NESHAP Subpart FFFF at 40 C.F.R. § 63.2520(d) requires subject facilities to submit a Notification of Compliance Status consistent with Subpart FFFF NESHAP Table 11.

21. NESHAP Subpart FFFF at 40 C.F.R. § 63.2520(b)(2) and(e) requires subject facilities to submit a Compliance Report consistent with Subpart FFFF NESHAP Table 11.

22. NESHAP Subpart FFFF at 40 C.F.R. § 63.2450(a) requires subject facilities to comply with the emission limits and work practice standards listed in Tables 1-10 of Subpart FFFF NESHAP for the following emission units:

a. Continuous process vents;
b. Batch process vents;
c. Storage tanks;
d. Transfer racks;
e. Equipment leaks;
f. Waste water streams and liquid streams in open systems; and
g. Heat exchange systems.

Findings

23. EPA conducted an on-site inspection of Highwater on June 29, 2018. Highwater provided information to EPA during the inspection and shortly after the inspection via electronic correspondence about Highwater's fermentation process and leak detection and repair program since January 1, 2016. This information included the CO2 scrubber pressure drop and scrubber additive flow rate.

24. The inspection conducted by EPA using an optical gas imaging (OGI) camera as well as audio, visual and olfactory (AVO) observations revealed uncaptured emissions from the fermentation process from components on the top of the Highwater's fermenters and beer well.

25. Emissions calculations performed by EPA in accordance with *the Handbook of Chemical Hazard Analysis Procedures* (FEMA, USDOT, USEPA, 1989) and based on information provided to EPA by Highwater show that uncaptured emissions from the Fermentation Units identified in paragraph 24 are:

a. Approximately 5.6 TPY of acetaldehyde. Note that along with the remaining aggregate facility acetaldehyde emissions, this equals approximately 11 TPY of acetaldehyde for the entire facility.
b. Greater than 10 lb/hr of VOC.

26. The facility is a major source of a single HAP, acetaldehyde, and is subject to regulation under NESHAP Subpart FFFF.

Alleged Violations

Permit and SIP

27. Since September 15, 2014, Highwater emitted more than 9.0 TPY of a single HAP, acetaldehyde, in violation of Total Facility Permit condition No. 6 on Permit page A-1.

28. Since September 15, 2014, Highwater has failed to properly maintain components that are part of the Fermentation Units, including pressure relief valves/vacuum breakers and agitators, that have the capacity to vent fermentation emissions uncontrolled directly to the atmosphere in violation of Total Facility Permit conditions Nos. 9 and 14 on Permit pages A-1 and A-2 and Minn. R. 7007.0800.16(J).

29. Since September 15, 2014, Highwater emitted more than 10 lb/hr of VOCs from the Fermentation Units in violation of Fermentation Units Permit condition No. 1 on Permit page A-9.

30. Since September 15, 2014, Highwater has failed to vent all emissions from the Fermentation Units to the CO2 scrubber in violation of Fermentation Units Permit condition No. 5 on Permit page A-9.

30. Since September 15, 2014, Highwater has failed to vent all emissions from the Fermentation Units to the CO2 scrubber in violation of Fermentation Units Permit condition No. 5 on Permit page A-9.

31. Since January 1, 2016 Highwater has failed to maintain a CO2 scrubber pressure drop greater than or equal to 4.0 inches of water column for 5,634 hours in violation of Fermentation Units Permit condition No. 6 on Permit page A-9.

32. Since January 1, 2016 Highwater has failed to supply 1.25 gph of scrubber additive to the CO2 scrubber for 535 days in violation of Fermentation Units Permit condition No. 8 on Permit page A-9.

33. Since January 1, 2016 Highwater has failed to take corrective action to mitigate low CO2 scrubber differential pressure and low CO2 scrubber additive flow in violation of Fermentation Units Permit condition No. 15 on Permit page A-10.

NESHAP Subpart FFFF. Miscellaneous Organic Chemical Manufacturing

34. Since September 15, 2014, Highwater has failed to develop a startup, shutdown and malfunction (SSM) plan, in violation of 40 C.F.R. § 63.6(e)(3).

35. Since September 15, 2014, the facility has failed to submit an Initial Notification in violation of 40 C.F.R. § 63.2515(b).

36. Since September 15, 2014, the facility has failed to submit a Notification of a Performance Test(s) in violation of 40 C.F.R. § 63.2515(c).

37. Since September 15, 2014, the facility has failed to submit a Notification of Compliance Status in violation of 40 C.F.R. § 63.2520(d) and Subpart FFFF NESHAP Table 11.

38. Since September 15, 2014, the facility has failed to submit a Compliance Report in violation of 40 C.F.R. § 63.2520(b)(2), 63.2520(e), and Subpart FFFF NESHAP Table 11.

39. Since September 15, 2014, the facility has failed to comply with the emission limits and work practice standards listed in Tables 1-10 of Subpart FFFF NESHAP in violation of 40 C.F.R. § 63.2450(a) for the following emission units:

a. Continuous process vents;
b. Batch process vents;
c. Storage tanks;
d. Transfer racks;
e. Equipment leaks;
f. Waste water streams and liquid streams in open systems; and
g. Heat exchange systems.

Environmental Impact of Violations

40. All violations cited above demonstrate elevated emissions of VOCs, including ethanol and acetaldehyde, which is also a HAP.

a. 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 anima, as well as nasal, trachea and kidney pathology. EPA lists acetaldehyde as a probable human carcinogen.

b. VOCs contribute to ground level ozone, which can irritate the human respiratory system and reduce lung function.

3/15/19
Date

Edward Nam
Director
Air and Radiation Division

CERTIFICATE OF MAILING

I, Kathy Jones, certify that I sent a Notice and Finding of Violation, No. EPA-5-19-MN-02, by Certified Mail, Return Receipt Requested, to:

Lisa Landkammer
Environmental Health & Safety Manager
Highwater Ethanol, LLC
24500 US Highway 14
Lamberton, Minnesota 56152

I also certify that I sent copies of the Notice of Violation and Finding of Violation to:

Sarah Kilgriff, Manager
Land and Air Compliance Section
Industrial Division
Minnesota Pollution Control Agency
Sarah.Kilgriff@state.mn.us

On the 18th day of March 2019

Kathy Jones
Program Technician
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER: 7017 0660 0000 3661 9240