



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
BAY CITY DISTRICT OFFICE



PHILLIP D. ROOS
DIRECTOR

September 13, 2023

VIA EMAIL ONLY

Doug DeLand, General Manager
Poet Biorefining - Caro, LLC
1551 Empire Drive
Caro, Michigan 48723

SRN: N6996, Tuscola County

Dear Doug DeLand:

VIOLATION NOTICE

On August 11, 2023, the Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), was notified by Poet Biorefining - Caro, LLC of an abnormal operating condition reportable pursuant to R 336.1912 of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Air Pollution Control Rules; and the conditions of Renewable Operating Permit (ROP) number MI-ROP-N6996-2018a. The subsequent notice required by R 336.1912 was received on August 18, 2023.

During a review of the notification, staff observed the following:

Process Description	Rule/Permit Condition Violated	Comments
FGDDGSDRYERS	MI-ROP-N6996-2018a FGDDGSDRYERS, SC I.7.	Exceeded VOC limit of 9.00 lb/hr. Estimated VOC emissions were 15.11 lbs/hr. The event lasted for 21.25 hours producing 0.06 tons of excess VOC emissions.
FGDDGSDRYERS	MI-ROP-N6996-2018a FGDDGSDRYERS, SC IV.2.a.	Permit restricts feeding materials to either dryer in FGDDGSDRYERS unless the thermal oxidizer is installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes IV.2.(a), achieving a 95.0% by weight destruction efficiency.

		Destruction efficiency is a product of achieving appropriate residence time in the combustion chamber. The hole in the combustion chamber did not allow for achieving the appropriate residence time.
FGDDGSDRYERS	MI-ROP-N6996-2018a FGDDGSDRYERS, SC IV.2.a.	Permit restricts feeding materials to either dryer in FGDDGSDRYERS unless the thermal oxidizer is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer (CE010) includes maintaining it according to the MAP. The MAP requires the facility to perform daily checks on the combustion chamber for leaks that may cause air infiltration. Also, there is a requirement to perform a semi-annual inspection of the refractory within the thermal oxidizer and throat cone for badly cracked or broken refractory. Records associated with these inspections were requested on August 31, 2023, and were not received.
FGDDGSDRYERS	R 336.1910 Air-cleaning devices. Rule 910. An air-cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with these rules and existing law.	The thermal oxidizer did not operate in a satisfactory manner from August 8, 2023, 19:15 to August 9, 2023, 16:30.
Source-Wide Conditions	MI-ROP-N6996-2018a Source-Wide Conditions, SC III. 2. The permittee shall not operate any equipment unless the malfunction abatement plan (MAP), revised as necessary	The MAP requires the facility to perform daily checks on the combustion chamber for leaks that may cause air infiltration. Also, there is a requirement to perform a semi-annual

	<p>according to the procedures of Rule 911, is implemented and maintained. The MAP shall include procedures for maintaining and operating equipment in a satisfactory manner, including during malfunction events, and a program for corrective action for such events. If the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the MAP within 45 days after such an event occurs. (R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, 40 CFR 52.21(c) and (d))</p>	<p>inspection of the refractory within the thermal oxidizer and throat cone for badly cracked or broken refractory. Records associated with these inspections were requested on August 31, 2023, and were not received.</p>
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The records provided demonstrate that actual emissions of VOC from the dried distiller’s grains with solubles (DDGS) dryers and centrifugation (FGDDGSDRYERS) process equipment exceeded the 9.00 lb/hr limit in Special Condition (SC) I.7. of MI-ROP-N6996-2018a. Actual emissions were 15.11 lb/hr. A R 336.1912(3) reportable event occurred for 21.25 hours and caused VOC emissions of 0.06 tons.

The R 336.1912(3) report indicated the cause of the exceedance was due to a hole in the top of the thermal oxidizer. Special condition IV.2.a., FGDDGSDRYERS, of MI-ROP-N6996-2018a restricts feeding materials to either dryer in FGDDGSDRYERS unless the thermal oxidizer is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer (CE010) includes maintaining it according to the MAP. The R 336.1912(3) report describes the hole in the thermal oxidizer prevented emissions from achieving the proper residence time in the chamber. Residence time is a function of destruction efficiency and a reduced residence time in the chamber impeded reaching the desired 95.0% destruction efficiency. Further, this also constitutes a violation of Rule 910 of the administrative rules promulgated under Act 451, which requires that an air-cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the administrative rules and existing law.

In follow up correspondence to the event, records associated with the MAP were requested. The MAP requires the facility to perform daily checks on the combustion

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chamber for leaks that may cause air infiltration and perform a semi-annual inspection of the refractory within the thermal oxidizer and throat cone for badly cracked or broken refractory. Records associated with these inspections were requested on August 31, 2023, and were not received. This is a violation of SC III. 2. of the Source-Wide Conditions and SC IV.2.a. of FGDDGSDRYERS in MI-ROP-N6996-2018a.

Please initiate actions necessary to correct the cited violations and submit a written response to this Violation Notice by October 4, 2023 (which coincides with 21 calendar days from the date of this letter). The written response should include: the dates the violations occurred; an explanation of the causes and duration of the violations; whether the violations are ongoing; a summary of the actions that have been taken and are proposed to be taken to correct the violations and the dates by which these actions will take place; and what steps are being taken to prevent a reoccurrence.

Please submit the written response to Gina McCann at EGLE, AQD, Bay City District, at 401 Ketchum Street, Suite B, Bay City, Michigan 48708 or McCannG2@Michigan.gov and submit a copy to Jenine Camilleri, Enforcement Unit Supervisor at EGLE, AQD, P.O. Box 30260, Lansing, Michigan 48909-7760.

If Poet Biorefining - Caro, LLC believes the above observations or statements are inaccurate or do not constitute violations of the applicable legal requirements cited, please provide appropriate factual information to explain your position.

Thank you for your attention to resolving the violations cited above and for the cooperation that was extended to me during my inspection of Poet Biorefining - Caro, LLC. If you have any questions regarding the violations or the actions necessary to bring this facility into compliance, please contact me at the number listed below.

Sincerely,



Gina L. McCann
Environmental Quality Specialist
Air Quality Division
989-439-2282

cc: Coryn Houser, Poet
Annette Switzer, EGLE
Christopher Ethridge, EGLE
Brad Myott, EGLE
Jenine Camilleri, EGLE
Chris Hare, EGLE