



□ CARO  
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September 29, 2023

Gina McCann  
Environmental Quality Analyst  
State of Michigan Department of Environment, Great Lakes, and Energy  
Air Quality Division, Bay City District Office  
401 Ketchum Street, Suite B  
Bay City, MI 48708

Dear Gina McCann,

This letter is in response to the NOV received by POET Biorefining – Caro, LLC (POET) from EGLE on September 13, 2023. As requested, POET is providing information related to the cited violations in the letter.

**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*

**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.*

**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.*

**R 336.1910 Air-cleaning devices. Rule 910.** *The thermal oxidizer did not operate in a satisfactory manner from August 8, 2023, 19:15 to August 9, 2023, 16:30*

**MI-ROP-N6996-2018a Source-Wide Conditions, SC III. 2.** *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.*

POET provides the following response to the above five comments listed in the NOV.

On August 8, 2023 at roughly 19:15, POET personnel identified a potential leak from the top of the thermal oxidizer combustion chamber. Further investigation led to discovery of a hole in the top of the thermal oxidizer, which resulted in emissions without full residence time in the combustion chamber. The hole was caused by heat and vibrations that occur during normal operation of the thermal oxidizer. As a corrective action, POET personnel patched the hole to prevent further excess emissions by August 9,

2023, at roughly 16:30. POET intends to complete a more robust repair of the thermal oxidizer roof during the fall shutdown, scheduled for October 2<sup>nd</sup>-6<sup>th</sup>, 2023.

The violation is no longer ongoing. Daily visual inspections for the combustion chamber have been added to the Operations Shift Log Checklist, which is completed once per shift. If leaks are observed, POET will take corrective actions to mitigate. Regarding the semi-annual inspection of the refractory within the Thermal oxidizer and throat cone for badly cracked or broken refractory records, POET informed EGLE that scheduled RTO and TO repairs occur twice a year during our scheduled shutdowns and records of repair work can be provided if need be. POET has also created a semi-annual Preventative Maintenance Plan (34078) to inspect the RTO and TO refractory. This plan also instructs team members to inform EHS and management of any irregularities, and complete any required repairs.

If you need additional information or have questions, please feel free to contact Coryn Houser at 989-286-3847 or [Coryn.Houser@POET.com](mailto:Coryn.Houser@POET.com).

Sincerely,

A handwritten signature in black ink, appearing to read 'Doug Deland', with a long, sweeping flourish extending to the right.

Doug Deland  
General Manager  
POET Biorefining - Caro