



GRETCHEN WHITMER
GOVERNOR

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



DANIEL EICHINGER
ACTING DIRECTOR

January 27, 2023

VIA EMAIL ONLY

Kayla Peacock, Michigan Responsible Care Leader
Corteva Agriscience, LLC
3100 James Savage Road
Midland Michigan 48642

SRN: P1028, Midland County

Dear Kayla Peacock:

VIOLATION NOTICE

On December 22, 2022, Corteva Agriscience, LLC (Corteva) staff notified the Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), that the facility cannot prove they were in compliance with emission limits allowed in the conditions of Renewable Operating Permit (ROP) number MI-ROP-P1028-2022. On December 30, 2022, Corteva provided additional information in a written report submitted in compliance with Air Pollution Control Rules and Corteva's ROP General Condition 25.

The Rule 912, 10-day written report included information related to violations of Corteva's ROP associated with an uncontrolled release of process vents prior to the EU1200 pollution control devices.

Process Description	Rule/Permit Condition Violated	Comments
EU1200 FGMONMACT	ROP No. MI-ROP-1028-2022, EU1200, Special Condition (SC) III.2. Process venting to regenerative thermal oxidizer (RTO) only allowed when RTO in satisfactory operation. FGMONMACT SC I.1, SC III.1. Direct closed-vent system to control device to achieve $\geq 98\%$ reduction or < 20 ppmv organic HAP.	Both RTOs shutdown and process vents released uncontrolled to atmosphere for approximately 1.7 hours.
EU1200	ROP No. MI-ROP-1028-2022, EU1200, SC I.1 and I.2. Organic HAPs < 20 ppmv or $> 98\%$ destruction	Potential uncontrolled emissions 51lbs Methanol, additional 14 pounds VOC in 1.7 hours.
EU1200	ROP No. MI-ROP-1028-2022, EU1200, SC I.3.	Potential uncontrolled emissions 51lbs Methanol,

	20 ppmv VOC and acetone combined.	additional 14 pounds VOC in 1.7 hours.
EU1200	ROP No. MI-ROP-1028-2022, EU1200, SC I.8. 0.75 lbs/hr Ammonia	Potential uncontrolled emissions 40 lbs ammonia in 1.7 hours.

The information provided indicated that uncontrolled potential emissions from the EU1200 process occurred for approximately one hour and forty-one minutes. Reported estimated emissions were 51 pounds Methanol, 20 pounds Ammonia, and 14 pounds additional VOC. The conditions of Corteva's ROP limit the emissions of HAPS to less than 20 ppmv or 98% destruction. The VOC and acetone combined limit is 20 ppmv. The ammonia limit is 0.75 lb/hr.

The EU1200 ROP conditions require Corteva to have a Malfunction Abatement Plan (MAP) that describes actions to prevent, detect, and correct malfunctions or equipment failures resulting in emissions exceeding applicable emission limits. The current MAP does not address a scenario when both RTOs are unexpectedly unavailable and the damper valve on the inlet vent line to each RTO is closed.

The December 30, 2022, Rule 912, 10-day written report included the dates the emission violations occurred, date the elevated emissions stopped, investigative findings as to the causes of the elevated emissions, and corrective actions taken eliminated the elevated emission.

The facility determined that the uncontrolled emissions were in part due to the malfunction of a gas to air ratio valve. The final corrective action was not yet determined at the time of the December 30, 2022 report.

Please provide an update to the root cause findings and any additional actions Corteva has taken or will take to correct the cited violations and submit in a written response to this Violation Notice by February 17, 2023 which coincides with 21 calendar days from the date of this letter.

In addition, please submit an amended MAP that includes actions to prevent, detect, and correct gas to air ratio valve malfunctions by March 13, 2023, which coincides with 45 calendar days from the date of this letter.

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

Kayloa Peacock
Corteva Agriscience, LLC
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If Corteva 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 violation cited above. If you have any questions regarding the violations or the actions necessary to bring this facility into compliance, please contact me at the number or email listed below.

Sincerely,

A handwritten signature in black ink that reads "Kathy Brewer". The signature is written in a cursive style with a large initial "K".

Kathy Brewer
Senior Environmental Quality Analyst
Air Quality Division
989-439-2100
BrewerK@Michigan.gov

cc: Patty Worden, Corteva
Annette Switzer, EGLE
Christopher Ethridge, EGLE
Brad Myott, EGLE
Jenine Camilleri, EGLE
Chris Hare, EGLE