



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
SAGINAW BAY DISTRICT OFFICE



C. HEIDI GREYER  
DIRECTOR

August 3, 2017

Mr. Scott Bemis  
EH&S Responsible Care Leader  
The Dow Chemical Company  
1790 Building, Washington Street  
Midland, Michigan 48674

SRN: A4033, Midland County

Dear Mr. Bemis:

**VIOLATION NOTICE**

On June 22, 2017, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), received a notification of an excursion of the 963 THROX T-301 scrubber from The Dow Chemical Company (Dow) located in Midland, Michigan. On July 17, 2017, Dow submitted a notification pursuant to R336.1912 (Rule 912) that the 963 THROX T-301 scrubber excursion resulted in emissions of Hazardous Air Pollutants (HAP) for more than 1 hour in excess of applicable standards or limitations.

The Dow submittal reported that an intermittent failure of a sensor resulted in the 963 THROX T-301 minimum pH limit, required by the Renewable Operating Permit MI-ROP-A4033-2017 (ROP), to not be maintained while receiving process vent emissions.

Dow reported that an estimated 200 pounds of chlorine was released on May 22, 2017 and 300 pounds of chlorine was released on May 25, 2017 from the 963 THROX vent SV963THROX.

The failure to maintain the required pH on the 963 THROX T-301 scrubber resulted in the following known and potential violations:

Process Description	Rule/Permit Condition Violated	Comments
FG963THROX-S1	MI-ROP-A4033-2017, FG963THROX, SC III.1, and Act 451, Rule 910	963 THROX T-301(Scrubber 6) pH below minimum limit of 7.5 for 10 hours on May 22, 2017 and 17 hours on May 25 2017.
EU11-S1	MI-ROP-A4033-2017, EU11-S1, SC I.2. Phosgene 0.06 lb/hr	963 THROX used as control

EU88-S1	MI-ROP-A4033-2017, EU88-S1, SC I.1, Chlorine 3.1 pph limit	963 THROX used as control. An estimated 200 lbs of chlorine was released on May 22, 2017 and 300 lbs of chlorine released on May 25, 2017
EUANION_XCHG-S1	MI-ROP-A4033-2017, EUANION_XCHG-S1, SC I.3. HCl 2.2 pph limit	Scrubber 2 vents to 963 THROX. An estimated 200 lbs of chlorine was released on May 22, 2017 and 300 lbs of chlorine released on May 25, 2017
EUANION_XCHG-S1	MI-ROP-A4033-2017, EUANION_XCHG-S1, SC I.4. Chlorine 1.0 pph limit	Scrubber 2 vents to 963 THROX. An estimated 200 lbs of chlorine was released on May 22, 2017 and 300 lbs of chlorine released on May 25, 2017
EU11-S1	40 CFR Part 63 Subpart NNNNN	963 THROX used as MACT control
EU11-S1 EU88-S1 EUANION_XCHG-S1	40 CFR Part 63 Subpart FFFF	963 THROX used as MACT control
EU12b-S1	40 CFR Part 63 Subpart MMM	963 THROX used as MACT control

The information provided demonstrates that emissions may have exceeded ROP allowed levels and processes were noncompliant with required operating conditions associated with emission control equipment.

The processes are also subject to the federal National Emission Standards for Hazardous Air Pollutants (NESHAP) for Pesticide Active Ingredient Production, Hydrochloric Acid Production, and, Miscellaneous Organic Chemical Manufacturing. These standards are found in 40 CFR Part 63, Subparts MMM, NNNNN, and FFFF, respectively.

The reported periods when the 963 THROX T-301 scrubber pH was below the daily average minimum of 7.5 on May 22 and 25, 2017, constitute violations of Act 451, Rule 910, 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.

The written Rule 912 response included the dates the pH violations occurred and the estimated chlorine emissions; an explanation of the causes and duration of the

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violations; a summary of the actions that have been taken and are proposed to be taken to correct the violations, the date the sensor causing the malfunction was replaced; and steps taken to prevent a reoccurrence.

Please initiate any additional actions necessary to correct the cited violations and submit a written response to this Violation Notice by August 24, 2017. The response should include dates the pH alarm programming was revised and emission estimates from emission units that were venting to the 963 THROX and utilize the 963 THROX T-301 scrubber for HAP control during the periods of low pH. Include information on the control efficiencies for phosgene by combustion and by T-103 scrubber portions of 963 THROX.

If Dow 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. 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,



Kathy L. Brewer  
Senior Environmental Quality Analyst  
Air Quality Division  
989-894-6214

cc/via e-mail: Ms. Kayla Peacock, Dow  
Ms. Lynn Fiedler, DEQ  
Ms. Mary Ann Dolehanty, DEQ  
Mr. Chris Ethridge, DEQ  
Mr. Thomas Hess, DEQ  
Mr. Chris Hare, DEQ