



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
SAGINAW BAY DISTRICT OFFICE



C. HEIDI GREYER
DIRECTOR

October 18, 2016

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

SRN: A4033, Midland County

Dear Mr. Bemis:

VIOLATION NOTICE

On August 23, 2016, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted an inspection of The Dow Chemical Company located at 1790 Building, Washington Street, Midland, Michigan. The purpose of this inspection was to determine compliance with the requirements of the federal Clean Air Act; 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-A4033-2011e.

During the inspection, staff observed the following:

Process Description	Rule/Permit Condition Violated	Comments
EU85-S1 Anhydrous hydrogen chloride (HCl) distribution process and aqueous HCl production (32% - 36%) and distribution process at 954 Building	SC IV Design & Equipment parameters 3. Permittee shall equip & maintain the HCl FFAB Scrubber (T-101) recirculation line with a density meter for determining the weight percent of HCl at the top of the scrubber	Between October 2015 and July 2016 the %HCl density meter readings were not reliable due to meter malfunctions

The HCl FFAB scrubber (T-101) was shut down as part of scheduled maintenance on the EU85-S1 process between September 16 and 22, 2015. The %HCl monitoring device appeared to be monitoring %HCl as required after startup of the process. The %HCl readings were initially low. After several months, the %HCl values reported by the density meter remained lower than those from the same periods during previous operations. An internal inquiry determined that the reported %HCl values were unreliable, possibly due to a damaged electrical wire that provided inadequate and inconsistent current to the monitoring device.

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After the discovery of the malfunctioning monitor, the %HCl density meter was replaced. A redundant %HCl density meter has been ordered and is planned to be installed.

In a September 9, 2016 email, the facility provided information to the AQD describing a mass balance evaluation of the HCl FFAB scrubber during the monitoring malfunction period. The mass balance assumed a worst case scenario (high HCl from process, high temperature, and low flow in scrubber). The estimated %HCl during the monitoring malfunction period was calculated to be no more than 3.1% HCl. Based on the conservative mass balance assumptions, the facility determined that the ROP HCl emission limit of 2.2 pph was not exceeded since the control device was operating within the parameters indicative of proper functionality.

Please initiate any additional actions necessary to correct the cited violation and submit a written response to this Violation Notice by November 8, 2016 (which coincides with 21 calendar days from the date of this letter). The written response should include: the dates the violation occurred; any new findings or corrections regarding the causes and duration of the violation; confirmation that the violation is not ongoing; a summary of further actions if any have been taken or proposed to be taken to correct the violation and the dates by which these actions will take place; and what steps are being taken to prevent a reoccurrence.

If The Dow Chemical Company 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 and for the cooperation that was extended to me during my inspection of August 23, 2016. If you have any questions regarding the violation 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