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Air Quality Division

August 16, 2019 Detroit Office

Mr. Todd Zynda
Senior Environmental Engineer
Air Quality Division
Department of Environment, Great Lakes, and Energy (EGLE)
Cadillac Place, 3058 West Grand Boulevard, Suite 2-300
Detroit, Michigan 48202-6058

Dear Mr. Zynda:

This letter is in response to a Violation Notice (VN) received from EGLE dated August 1, 2019, in reference to the inspection on June 6, 2019. The VN states Rule/Permit Condition Violated PTI 150-08E, Special Conditions IV.1 and IX.1, R 336.1910, 40 CFR 60.735(c):

1. 2-hour arithmetic average pressure drop readings were less than 90% of the pressure drop measured during stack test for various dates;
2. 2-hour arithmetic average scrubber flow rates were greater than 20 % of the measured flow rate from stack testing for various dates; and
3. Failure to submit semiannual reports for the scrubber flow rate deviations during the 2nd half of 2017 and the 1st half of 2018.

Item 1. During the period of January 7, June 4 and November of 2018, US Silica's Rockwood Plant had a series of problems with the wet scrubber system. These issues caused a slightly low pressure drop which were recognized and dealt with throughout this period. During this time opacity observations were made and remained in compliance.

The scrubber system issues and corrective actions include the following:

- Re-calibrated the Differential Pressure (DP) sensors,
- Found a bad transmitter, which was replaced.
- The DP lines across the Scrubber and Fan kept freezing, the plant replaced the lines with larger diameter pipe (¼" to ½" ID).
- Pressure tap locations were relocated according to the manufacturer to get a more accurate reading as well as an effort to accumulate less moisture in the lines.
- All pressure and water supply piping has been heat traced and insulated to help prevent freezing.
- The plant also added a heat lamp and insulated box around the DP sensors to help with freezing temperature issues.
- The plant also experienced exhaust fan issues during this time.
 - The plant replaced numerous bearings, the inlet cone, impeller, shaft, sheaves, and repaired various cracks in the housing caused by vibration.
 - The plant recently purchased and installed a new complete fan assembly.

We believe that moving and replacing the sensor tubing and replacing the exhaust fan inlet cone were the most productive items that helped the scrubber return to normal pressure drop range.

These recognized deviations from normal range were described in the Semi-Annual Report (SAR) letters to the DEQ dated July 12, 2018 and January 28, 2019.

To prevent reoccurrence of this situation the Rockwood Plant has put in place several actions:

1. We have installed alarms into the Wonderware system, which is the plant automation system that tracks scrubber metrics, to alert operators if the plant is approaching a deviation.
2. The plant has recently upgraded the computer system and Wonderware system to improve reliability.

Item 2. During the period from September 23, 2017 and February 8, 2018, in the data submitted to the State, there were 9 of 10 readings above the 157 gallons per minute for wet scrubber flowrate. Please find attached to this letter trend charts for the dryer feed conveyor amps and wet scrubber flow during this period. Feed conveyor amps is an indication of dryer operation. As depicted in the attachment, when the feed conveyor amps drop the scrubber water flow increases to the presented flowrates because there is no longer a process demand for this water. The 10th reading indicates a compliant water flow. To prevent reoccurrence, the plant will strive to screen the data more thoroughly and prevent reporting compliance information when we are not operating.

Please find attached data during the dates identified by the agency in the Violation Notice that demonstrates compliance with wet scrubber flowrates.

Item 3. As stated above, we believe that the SAR for high water flow in the second half of 2017 and early 2018 is unwarranted given the analysis presented in Item 2.

We believe that the actions taken by the Rockwood plant during the reported issues in our Semi-Annual Monitoring Reports related to the wet scrubber system will ensure that these issues have been resolved to the Agency's satisfaction preventing further reoccurrence.

Sincerely,



Chris Coppens
Plant Manager
U.S. Silica
Rockwood Plant

Enclosure

cc/via email: Ms. Carrie Dynis, Director of Operations, U.S. Silica
Mr. Dave Olchawa, Sr. Manager, Environmental Programs, U.S. Silica
Mr. John Robinson, CIH, EHS Coordinator, U.S. Silica