11877 RVN 20170815

Brian Carley MDEQ, Air Quality Division Jackson District Office BLDG 4<sup>th</sup> floor 301 East Louis Glick Highway Jackson, Michigan 49201

RE:

Guardian Industries, LLC SRN: B1877, Monroe County Violation Notice Dated July 28, 2017



August 15, 2017

Brian,

This letter is in response to the July 28, 2017 Violation Notice identified for the Guardian Industries Carleton Michigan facility as a result of the July 12 inspection by the Michigan Department of Environmental Quality (MDEQ) for exceeding Revised Operating Permit (ROP), MI-ROP-B1877-2014a Special Condition II.2(c) as it applies to Glass Manufacturing Line 1, Emission Unit EU00079. As stated in the Violation Notice, the facility exceeded the maximum salt cake to sand ratio material limit for 27 consecutive days, from June 15, 2017 through July 11, 2017.

Special Condition II.2(c) limits the Salt Cake to Sand Ratio in the batch material feed to the furnace. The limit changes based on the raw glass production rate as shown below:

Salt Cake to Sand Ratio (Clear Glass)	a. 12 lbs.	a. per 1,000 lbs. for raw glass production up to 450 tons per day.
	<ul> <li>b. 10 lbs.</li> <li>C. The maximum salt cake to sand ratio while manufacturing clear glass at a raw glass production rate between 450 and 550 tons per day shall be based on upon a linear interpolation between 12.0 and 10.0 pounds per 1,000 pounds,</li> </ul>	b. per 1,000 lbs. for raw glass production rate of 550 tons per day C. per mix

For the past several years, the Carleton Line 1 has operated under 450 tons per day production rate. Therefore, per (a) in the above table, the Salt Cake to Sand Ratio limit was 12 lbs./1000 lbs. of sand. The facility recently increased its pulled rate above its historical pulled rate of 450 tons per day (while still under the permitted limit of 550 tons per day identified in Special Condition II.2 (b)). When the batch recipe was modified to increase glass tonnage to about 500 tons/day in June, the required linear extrapolation salt cake to sand limit outlined under (c) was missed. The exceedances went unnoticed due to an absence of process safeguards or management of change process to alert personnel of potential permit non-compliance when a change in batch chemistry or raw glass production increase took place.

The Guardian Carleton facility, upon discovery of the issue, immediately reduced glass tonnage and modified the batch chemistry, and as of July 12, 2017, the salt cake to sand ratio was within the required permit limit.

Furthermore, immediately after discovery of this exceedance, the facility conducted a review of the processes and implemented the following corrective actions to minimize the potential for any future reoccurrence:

- Flashing error message will now display on the Batch House Weighment Target Computer Screen if when entering the batch recipe, the salt cake to sand ratio exceeds the limit.
- To prevent a mistaken computer entry for the Batch Target and Target Tonnage, a Checksum Calculation which includes the salt to sand ratio calculation was added to the program.
- Printed Batch Chemistry sheets which reflect proposed recipe changes must be approved and signed off by EH&S and a Management Representative to verify Compliance before Batch Changes are made. These sheets include a 2% buffer of Actual Tonnage allowance over Target Tonnage to prevent unnoticed tonnage swings from causing facility to be out of Compliance.
- Annual air permit awareness training has been implemented for all personnel whose decisions or actions could impact our permit compliance

We're confident the implementation of these safeguards fully address this Violation Notice and will be sustainable. If you have any questions or concerns, please call me at 734-654-4283.

Sincerely,

Michael Smolenski EH&S Manager

Cc: file