

Ms. Kathy Brewer
EGLE – AQD
401 Ketchum Street
Bay City, Michigan 48708

April 27, 2021

Subject: Michigan Sugar Company – Bay City Factory
Response to Rule 901 Violation Notice
ROP No. MI-ROP-B1493-2016 General Condition 12

Dear Ms. Brewer:

Michigan Sugar Company (MSC) has received a Violation Notice (VN) alleging a violation of Rule 901 and ROP No. MI-ROP-B1493-2016 General Condition 12. As requested in the VN, MSC has prepared the following response:

1. *Explanation of the Cause of the Violation.*

As MSC has previously noted, it cannot measure any odors that may be regulated under Rule 901, nor can it compare any such measurements with an objective standard. As a result, MSC neither admits nor denies that a violation has occurred. MSC is providing the information requested herein in the spirit of cooperation. MSC believes that the unanticipated need to route high strength wastewater to the Aeration Ponds may have resulted in the increased odors that are the subject of the VN at issue. It became necessary for MSC to route wastewater to the Aeration Ponds after extensive end-of-campaign clean out activities in the factory building resulted in a significant volume of high strength wastewater. Because the anaerobic digester was operating at a decreased efficiency, Flume Pond levels were higher than is typical, and MSC had to discharge partially treated wastewater to the Aeration Ponds to prevent the Flume Ponds from overflowing. The addition of high-strength wastewater to the Aeration Ponds resulted in reduced DO concentrations and may have generated additional odors.

2. *Summary of Action Taken and Proposed Action to Correct the Cited Violations*

Because the reduced storage capacity in the Flume Ponds is believed to have resulted from the decreased efficiency of the anaerobic digester at the time of the VN, MSC has taken steps to address the operation of the anaerobic digester, including the following:

- MSC added "seed" sludge on two occasions from a local municipality. The addition of seed sludge provides additional volatile suspended solids which can increase the activity of the anaerobic digester sludge.
- MSC recirculated high strength (i.e. high COD) water from the Final Pond Water through the East Aeration Pond to receive supplemental treatment.

Page 2

- MSC blended stormwater (with a very low COD) collected from the on-site piling grounds to dilute the high-strength wastewater and mitigate the drop in DO concentration.
- The speed of the Aerzen blowers which provide air to the East and West Aeration Ponds was increased. The purpose of the increase was to provide greater volumes of oxygen to the East and West Aeration Ponds to treat the high-strength wastewater.
- MSC has continued to collaborate with an environmental consultant with anaerobic digester expertise to evaluate the digester efficiency.

As of April 15, 2021, the DO concentrations in each of the four aeration ponds had returned to a 24-hour daily average above 1 mg/l.

3. *Steps Being Taken to Prevent a Recurrence*

MSC continues to collaborate with an anaerobic digester consultant to investigate the efficiency issues MSC experienced during the past campaign. The consultant has been on-site consistently over the past 2-3 months and performed a multitude of tests to improve performance. We anticipate results in the coming weeks and anticipate developing a strategy to mitigate this particular issue during future campaigns.

MSC staff will also be working cooperatively to develop a strategy for future factory clean-out at the conclusion of the sugar-beet slicing campaign. The goal will be to develop a scheduled process for factory clean-out/wash-out. Factory maintenance staff will work collectively with the environmental team to ensure the flume pond system does not become overwhelmed during future factory clean-out/wash-out activities.

We appreciated the opportunity to discuss the referenced Violation Notice with EGLE on April 13, 2021. If you have additional questions or require additional information, please contact me at (989) 860-6656 or by email at eric.rupprecht@michigansugar.com.

Sincerely,



Eric M. Rupprecht, P.E.
Environmental Engineer

cc: J. Lowry, MSC
K. Scheffler, MSC
J. Camilleri, EGLE
M. Zimmerman, Varnum
M. Eugster, Varnum