

Monika



April 12, 2018

Monika Brothers, Environmental Quality Analyst
Michigan Department of Environmental Quality
Air Quality Division - Kalamazoo District Office
7953 Adobe Road
Kalamazoo, Michigan 49009-5025

 **E-MAILED**
4/13/18
ARD - K200

RE: Violation Notice – Catalytic Oxidizer

Dear Ms. Brothers:

This letter is in response to the Violation Notice dated March 23, 2018. The Violation Notice stated that:

“The catalytic oxidizer is not being maintained and operated in a satisfactory manner. Excessive downtime was reported in semi-annual and annual ROP Report Certifications and Deviation Reports.”

During the period of July 1, 2017 through December 31, 2017, the AI-Oxidizer Additional Information form explained the oxidizer malfunctions. There were twelve malfunctions totaling 177 hours of oxidizer downtime. The catastrophic failure of the process blower’s fan wheel accounted for the largest portion of the downtime, 147 hours. The required repairs were more extensive than what the explanation on the AI-Oxidizer form may have suggested. The following is a more detailed account of the incident and the corrective actions taken.

Details of the Incident:

On the evening of Sunday, September 17, 2017, a “no flow alarm” went off and the oxidizer went down. After unsuccessfully trying to restart the oxidizer, the Operations Supervisor contacted our Maintenance Department to investigate the problem. Maintenance waited for the unit to cool and, after thorough troubleshooting, determined that the process blower’s fan wheel had failed and fractured into several pieces. When the fan wheel fractured, shrapnel ricocheted inside of the unit and damaged the fan housing. Maintenance salvaged the parts that they could and made repairs to the fan housing. Since the shaft was also damaged, the fractured pieces of the shaft had to be used as a template when fabricating a new one. A compatible fan wheel was located, however, it had to be sent for proper balancing prior to installation. This part of the repair process took a week and was then followed by the actual installation time.

The catastrophic failure of the fan wheel and shaft is not a typical occurrence and therefore, we did not have a spare on-hand. Going forward, we now have a new fan wheel, shaft and bearings on-hand to expedite repairs if this situation ever reoccurs. In addition to our current oxidizer cleaning and maintenance practices, we have also added the oxidizer to our Predictive Maintenance Program which is now using vibration analysis to detect motor issues prior to the point of failure.

We reviewed our Malfunction Abatement Plan (MAP) and do not feel that any changes are needed at this time.

If you have any questions or require additional information, please contact me at 269-966-1000 ext. 1158.

Sincerely,

A handwritten signature in black ink that reads "Robert Mason". The signature is written in a cursive style with a long, sweeping underline.

Robert Mason

Environmental, Health, & Safety Manager