

WOODWORTH, INCORPORATED 500 CENTERPOINT PKWY N PONTIAC, MI 48341 PHONE: 248.481.2354 FAX: 248.481.2430

December 19, 2022

Subject: Violation Notice SRN: P0547, Calhoun County

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To Whom it May Concern,

AQD - KALAMAZOO

In June of 2022, Woodworth was looking at ways to reduce the amount of Ammonia we were using in our Furnaces.

Our thinking was twofold. First, with less Ammonia in, we believed we would have less emissions out, and the second was, due to the rising cost of Ammonia (over 527% since February 2020) we would end up with a cost savings.

We had finished testing on numerous loads of FNC brake rotors in our Pontiac plant, and the results were promising. We had managed to meet our customers specifications & reduce the amount of Ammonia. We changed our process flows in Homer on 6/14/2022

As you are aware we had stack testing completed in October 2022 for the verification of NOx and Ammonia emissions from our FNC Heat Treating furnaces per our permit 64-15D.

During the test on October 17<sup>th</sup>, we found that changes made to our process flows had somehow caused a much higher emissions of Ammonia.

It was agreed upon not to use the first test and, that we would go back to our original process flows and test three more FNC loads.

The original process flows were used in the testing completed in February 2019 on the same three FNC Furnaces showed the Ammonia emissions at an average of 0.37 lb./hour.

Woodworth changed back to our original process flows on October 18<sup>th</sup>, 2022.

The ensuing three run testing using the original flows (2019) showed that while our NOx had decreased, the overall average for ammonia was 0.11 lb./hour higher than the limit on our permit limit of 0.58 lb./hr.?

While we cannot be sure if we are running within the permitted ammonia limits set by Permit 64-15D of 0.58 lb./hour, we are currently running the same flows as earlier testing that showed we were well below the permitted limits.



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Woodworth has since requested a modification to PTI 64-15D to increase our permitted Ammonia limit to 0.72 lb./hour and increase the number of FNC loads we can process in a 12-month rolling average to 2,200 loads from 1,900 loads.

Moving forward, Woodworth is planning to work on process optimization with the goal of reducing ammonia and NOx emissions. After performing the process optimization, Woodworth plans to conduct emissions testing within 12-24 months of this letter. Once we have reached our goals, we will retest with the state before implementing these changes in our production process.

Sincerely, Robert S. Lixey

Woodworth Inc. – Pontiac

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