CWC
A Textron Company

CWC TEXTRON 1085 W. Sherman Blvd., Muskegon, MI 49441

CWC TEXTRON
Robert R. Meacham
1085 W. Sherman Blvd.
Muskegon, MI 49441-3588
Phone: (231) 739-2794
Fax: (231) 739-2649
E-Mail: bob.meacham@kautex.textron.com

September 20, 2023

Eric Grinstern
Air Quality Division Grand Rapids District Office
Michigan Department of Environment, Great Lakes, and Energy
350 Ottawa Avenue NW, Unit 10
Grand Rapids, MI 49503-2316

Dear Mr. Grinstern:

CWC is providing this response to the Violation Notice (VN) dated August 31, 2023. As previously indicated in our August 2nd letter to Mr. Jeremy Howe, CWC reviewed the stack test results and does not believe the testing performed was adequate to determine compliance with the limits for EU-POURING found in ROP MI-PTI-B1909-2019a.

$PM_{10}/PM_{2.5}$

USEPA Reference Method 17 was used to determine the filterable portion of the particulate emissions. This method provides total particulate and does not differentiate between PM10 or PM2.5 compared to particulate matter of larger diameter. As stated in our last communication, the permit limits were established based on the proportion of emissions from pouring, cooling and shake out associated with pouring, as well as the size fractions found in Table 5.7 of the Casting Emission Reduction Program (CERP) Mexico Baseline Emissions report. This report indicates that PM10 is approximately 42.7% of PM filterable and PM2.5 is only 10.1%. Since CWC did not test to determine how much of the total particulate is PM10 or PM2.5 and just assumed that all the particulate matter was PM10 and PM2.5, it is likely that the emissions of PM10 and PM2.5 were overestimated. In order to determine the actual percentage of PM10 and PM2.5 filterable emissions, additional testing using USEPA Reference Method 201A would need to have been performed. However, Network (the stack testing company) felt that the Method 201A would have been difficult to run on this process and the test runs would have been longer than the one-hour test runs that were used. Since the four stacks were tested individually, longer test runs would have led to at least an additional two weeks of testing onsite. Because work has to be staged for testing and the process is run at its maximum normal operations, which is difficult to maintain for long periods, the shorter test runs and USEPA Method 17 were selected. Any future testing will require testers to use a different test method and longer test runs to

ensure that representative test data is collected. It should be noted that CWC does not feel additional testing is necessary, rather, the CERP sizing data should be applied to calculate the PM10 and PM2.5 values.

Because of the nature of this emission unit, we anticipated the condensable emissions from this process would be negligible. The stack testing results submitted on August 2, 2023 included Table 2 – Footnote (4) which states that "SVPOUR2 was the only source above 85°F and calculated for PM10, 2.5 and total Particulate Per EPA Method 202." It should be noted that the only reason that the SVPOUR2 stack was above 85°F is because ambient temperatures were higher on that day than on the other three days that testing was performed. Upon further review of the stack testing, it was noted that the value for the condensable blank was similar to the condensable sample from SVPOUR2. Therefore, it is believed the source of the condensables is not process related. Network requested the laboratory speciate the components of the inorganic condensables. CWC believes that the speciation indicates that the condensable emissions were due to artifact formation or laboratory contamination and were not from the pouring process. If the condensable portion were removed, the current stack test results would show compliance for PM10. Testing when the weather is cooler will indicate that there are no condensable emissions from this process.

As indicated above, CWC does not feel that additional stack testing is warranted because of the sizing available in the CERP report.

However, in case EGLE does not agree with the use of the CERP information, CWC has sent a request for proposal to several stack testing firms to provide a cost estimate to perform Method 201A with 4-hour test runs on EU-POURING. CWC requested that the firms provide the quotes by September 30th and will plan to select the stack testing firm to for testing by October 15th. CWC has requested that the stack testing firms include a site visit to review the process and verify the methods included in the RFP are feasible and will provide representative results that can be compared to the emission limits for EU-POURING. Following this site visit, CWC will submit a revised stack testing protocol and provide the estimated date of the retest. CWC anticipates the revised protocol will be submitted no later than November 15, 2023, however, the schedule will be verified once the stack testing firm is selected, and they can review the process to confirm applicable methodology to be used to perform the test. The additional stack testing will be performed according to the stack tester's schedule which will be coordinated with EGLE.

VOC

USEPA Reference Method 25A was used to determine the VOC emissions, which measures total hydrocarbons, including methane and ethane. Results for the VOC testing averaged less than 10 ppm of total hydrocarbons, so methane could have been a significant portion of the emissions due to natural gas combustion in the area. CWC has included VOC testing with use of a methane cutter or similar system to separate the methane from the rest of the total hydrocarbons in the RFP that was sent to the stack testing firms. This method or a similar method will be included in the revised protocol, if appropriate. The stack testing firms that CWC has spoken with indicated that the VOC limit is low and concentrations may be nearing the detection limit of the equipment. Therefore, CWC is also reviewing the materials submitted with PTI No. 69-21 to see if an increase in the emission limit for VOCs can be accommodated. If CWC and our permitting consultant, find that the process can

comply with all permitting requirements with an increase in the VOC emission limit, an application to revise the permit will be submitted by November 15, 2023.

NOx

Method 7E was used to determine the NOx emissions. The results indicated that the NOx concentration was less than 1 ppm which is within the error of the test method. In addition, CWC did not segregate the pouring area by closing doors, which may allow emissions from other sources at the plant to be captured in EU-POURING stacks. As discussed in the VOC section, CWC has requested that the stack testing firms include testing for NOx in the RFP. However, a request to modify the emission limit for NOx will be submitted by November 15, 2023, if the process can continue to comply with all applicable requirements following an emission increase.

CWC does not believe that the recent testing included enough information to ascertain compliance with its permit limits for EUPOURING. But should EGLE be unwilling to accept CERP data on PM2.5 and PM10, CWC is preparing quotes for additional testing to be conducted that will ensure that an accurate assessment of emissions when compared to the limits can be completed.

CWC believes that our emissions are currently compliant and the use of the CERP data and any additional testing described in this letter will demonstrate this compliance.

If you have any questions or would like to discuss any of the above, please call (231) 739-2794.

Sincerely,

Robert R. Meacham
Sr. Environmental & Facilities Engineer

cc: Eric Grinstern – EGLE AQD
Sue Kuieck – Fishbeck
Jenine Camilleri – EGLE AQD