



HESS Department



**Marathon Petroleum Company LP**

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**VIA FEDERAL EXPRESS**

October 18, 2022

Mr. Jorge Acevedo  
Environment, Great Lakes, and Energy (EGLE)  
Air Quality Division  
3058 W. Grand Boulevard  
Suite 2300  
Detroit, MI 48202

**RE: Response to 9/27/2022 Violation Notice Regarding GOHT 1 Heater PM Compliance Testing; Marathon Petroleum Company LP, Michigan Refining Division**

Dear Mr. Acevedo:

This letter is in response to the September 27, 2022 Violation Notice (VN) issued to Marathon Petroleum Company LP, Michigan Refining Division (MPC). In the VN, EGLE, Air Quality Division (AQD), alleged that the following violations occurred June 23, 2022.

Process Description	Rule/Permit Condition Violated	Comments
GOHT Charge Heater (EU08-GOHTCHARHTR-S1)	MI-ROP-A9831-2012c, FGHEATERS-S1, Condition I.19  R 336.1205 R 336.2802 40 CFR 52.21	The Particulate Matter permit limit is 0.0019 lb/MMBTU. The stack test result was 0.0039 lb/MMBTU

The VN relates to the result of the stack test on the GOHT 1 Charge Heater conducted June 23, 2022. MPC performed a retest on October 4, 2022, and the results (0.0005 lb/MMBtu) were well below the 0.0019 lb/MMBtu permit limit. Further, previous testing conducted over the last several years has shown consistent compliance with the permit limit as indicated below:

Year	GOHT1 Heater PM Test Result (lb/MMBtu)
2016	0.0005
2017	0.0010
2020	0.0009

The remainder of this letter provides information requested in the VN, including: (1) the date(s) the alleged violation occurred; (2) an explanation of the causes and duration of the alleged violation; (3) whether the violation is ongoing; (4) a summary of the actions that have been

taken and are proposed to be taken to correct the alleged violation and the dates by which these actions will take place; and (5) what steps are being taken to prevent a reoccurrence.

Date the Violation Occurred: MPC does not believe the alleged violation is on-going. Further, MPC questions the accuracy of the test results from the June 23 stack test (see discussion below).

Explanation of the Causes and Duration of the Violation:

MPC performed an investigation into potential factors that could have resulted in an increased PM emission rate. The PM emission in heaters is largely affected by the combustion of fuel gas and the quality of the air intake. Swings in the fuel gas composition or high concentrations of H<sub>2</sub>S in the fuel gas can lead to increased PM. The fuel gas was determined to have an insignificant effect on the PM result. CEMS and lab data did not indicate any abnormalities in the fuel gas make-up that would have negatively impacted combustion during the stack test on June 23, 2022. The following sections discuss 2 contributing factors that MRD has identified that led to the elevated PM result:

1. Inadequate Sample Collection – The GOHT 1 Heater was found to have a very low stack velocity, requiring Erthwrks to get a low flow manometer on site for accurate measurement. However, no changes to test execution such as test run duration or probe nozzle size were made to ensure adequate volume. As a result, an unusually small sample volume was collected during the test. In fact, the sample volume collected for the GOHT 1 Heater was nearly half the amount collected for a similar sized fuel gas fired heater (GOHT 2). The small sample size means that transient fluctuations in heater operation or potential sample contamination could have large and unrepresentative effect on PM test results.
2. Elevated Ambient PM from Offsite Sources -- MPC collects hourly data from four Perimeter Air Monitoring Stations (PAMS). The PAMS monitors measure multiple pollutants, including PM, as well as wind speed and direction. PAMS data was analyzed for the day the stack test was performed, and it was discovered that the results may have been affected from offsite sources. Significant concentration of PM<sub>10</sub>, as high as 95 ug/mg, was shown to be coming from the Northwest throughout the day which would have negatively impacted the quality of the air intake. The situation is compounded by the extremely low sample volume collected during testing and could lead to higher and unrepresentative PM test results.

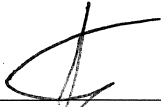
Summary of Corrective/Preventative Actions Taken: MPC completed a retest on October 4, 2022. The results of this re-test (0.0005 lb/MMBtu) showed compliance with the applicable emission limit. This retest utilized a larger probe nozzle and increased the test run duration in order to collect larger sample volumes which we believe would have yielded more representative test results. Prior to the retest MPC conducted cleaning on the stack test ports to minimize the potential for contaminating the results of the test. Moving forward MPC will implement this pre-test step for future PM stack tests.

MPC appreciates this opportunity to respond to the VN. If you would like further information please do not hesitate to contact Emily Mattson at 313-297-6289.

Sincerely,

Marathon Petroleum Company LP

By: MPC Investment LLC, General Partner



10/18/2022

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John S. Stefko, Deputy Assistant Secretary

#### Attachments

Cc: Hosam Hossanien, City of Detroit BSEED  
Crystal Rogers, City of Detroit BSEED  
Mary Ann Dolehanty, EGLE  
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