



Michigan Refining Division

79831
10/1/14



Marathon Petroleum Company LP

1300 South Fort Street
Detroit, MI 48217
Tel: 313.843.9100

Via Federal Express

October 2, 2014

Mr. Jorge Acevedo
Michigan Department of Environmental Quality
Air Quality Division
3058 W. Grand Boulevard
Suite 2300
Detroit, MI 48202

RE: Response to 9/15/14 Violation Notice Regarding Cracking Plant (CP) Flare Opacity; Marathon Petroleum Company LP, Michigan Refining Division

Dear Mr. Acevedo:

This letter is in response to the September 15, 2014 Violation Notice (VN) issued to Marathon Petroleum Company LP (MPC), Michigan Refining Division (MRD). In the VN, Michigan Department of Environmental Quality, Air Quality Division, alleged that the following violation, based on a Method 9 visible emissions readings, occurred on September 4, 2014.

Process Description	Rule/Permit Condition Violated	Comments
EU-CPFLARE-S1	General Condition 11.a, Section 1, of ROP No.: MI-ROP-A9831-2012b; Michigan Administrative Rule 301(1)(a) (R 336.1301(1)(a))	49.6% was the highest 6 minute average opacity.

Date the Violation Occurred: September 4, 2014. Violation is not on-going.

Explanation of the Causes and Duration of the Violation:

Air Products is a third party company that operates the Hydrogen Plant that is adjacent to MRD. The Air Products facility provides hydrogen and steam to the MPC Detroit Refinery and receives fuel gas from the refinery. On September 4, 2014 at approximately 2:30 pm, Air Products experienced an unplanned shutdown when the valve positioner on its purge gas fuel system malfunctioned. As a result of the unplanned shutdown, Air Products could no longer provide steam and hydrogen to the refinery. MRD also has steam-generating units at the refinery, but one of those units, the B&W Boiler, was down for routine maintenance at this time. Without adequate steam for the Propylene Unit compressor, MRD had to shut down the unit. The Propylene Unit shutdown resulted in flaring.

Additionally, Air Products had to stop accepting fuel gas from MRD's refinery fuel drum, which caused high pressure in the fuel drum. MRD had to relieve the high pressure in the fuel gas drum to the flare. The

Propylene Unit and fuel gas drum flaring began shortly after Air Products shutdown and continued, intermittently, until approximately 4:30 pm. During the first few minutes of the flaring event, high opacity (smoking) was observed.

The events that led to the flaring resulted from the unplanned shutdown of the Air Products facility, which is beyond the control of MRD. Shutdown of the Air Products facility is an infrequent event and was not preventable by MRD.

During the flaring event, MRD maintained and operated the flare consistent with good practice in minimizing emissions. It should be noted that all of MRD's flares comply with requirements of the consent decree that MPC executed with the United States Environmental Protection Agency and which became effective on August 30, 2012 (United States District Court of the Eastern District of Michigan, Civil Action No. 2:12-cv-11544-DML-MJH) ("Consent Decree"). Compliance with the Consent Decree requirements, including operation of an automatic control system on the flares, helps ensure good combustion efficiency in the flares by minimizing steam injection. Upset events, however, may cause smoking of the flare, which is corrected by increasing the steam to the flare. Because flare steam is typically minimized, upset events must be closely monitored to ensure that smoking does not occur. In this case, the large volume of gas along with the simultaneous loss of steam pressure resulted in the automatic control system being unable to react fast enough to prevent smoking.

Summary of the Actions Taken: With the loss of Air Products, MRD followed its emergency steam shedding procedure, reduced load on several units, and started up the B&W Boiler (which had been down) to provide additional steam production. Air Products restarted its units and began supplying hydrogen and steam to the refinery again at approximately 6:30 pm that same day.

Steps Taken to Prevent a Reoccurrence: As a result of this incident, MRD intends to implement the following long-term corrective actions:

1. Develop a refinery-wide communication regarding opacity/visible emissions requirements for the flares.
2. Improve operator training and awareness on switching from automatic control to manual control during large flaring events and adding steam to prevent smoking.

MRD appreciates this opportunity to respond to the VN. If you would like further information please do not hesitate to contact Ian Ladomer at 313-297-6336.

Sincerely,

Marathon Petroleum Company LP
By: MPC Investment LLC, its General Partner



Mr. C. T. Case, Deputy Assistant Secretary

cc: Ms. LaReina Wheeler, City of Detroit, Department of Environmental Affairs
Ms. Lynn Fielder, DEQ
Ms. Mary Ann Dolehanty, DEQ
Ms. Teresa Seidel, DEQ
Mr. Thomas Hess, DEQ

Ms. Wilhemina McLemore, DEQ
Mr. Jeff Korniski, DEQ
Mr. Jonathan Lamb, DEQ

Attachments: Renewable Operating Permit Report Certification