



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSING



KEITH CREAUGH  
DIRECTOR

May 26, 2016

Dear Interested Party:

Thank you for your interest regarding the Permit to Install (PTI) applications submitted by Marathon Petroleum Company LP, to the Michigan Department of Environmental Quality (MDEQ). Application No. 118-15 is for the proposed Tier 3 Fuels Project and Application No. 122-15 is for the proposed LPG Storage and Transfer Project, both located at the Detroit Refinery. The Detroit Refinery is located at 1300 South Fort Street, Detroit, Michigan.

Pursuant to state and federal requirements, the MDEQ held a public comment period that ended at 5:00 p.m. on January 29, 2016, with a public hearing on January 6, 2016, on its proposed conditional approval of the permits. The MDEQ received approximately 3,900 written comments during the public comment period and 58 verbal comments were presented at the public hearing.

After careful consideration of the issues and pursuant to the delegation of authority from the Director of the MDEQ, I have approved PTI Nos. 118-15 and 122-15 with modifications made to the proposed permits. These modifications will result in an overall decrease in the actual and allowed sulfur dioxide (SO<sub>2</sub>) emissions from the Marathon Detroit Refinery.

Specifically, Marathon reduced SO<sub>2</sub> emissions from the Tier 3 Fuels Project and the fluid catalytic cracking unit regenerator. Instead of a 22 ton per year (tpy) increase in emissions after the Tier 3 Fuels project, there will be a 1 tpy decrease in emissions. This reduction will be achieved by:

- Modifying the Unit 42 Sulfur Recovery Unit to reduce emissions by 9.1 tpy.
- Reducing the amount of sulfur allowed in the fuel burned in the new gasoil hydrotreater (GOHT) charge heater to reduce emissions by 1.3 tpy.
- Limiting the total amount of fuel that can be burned in the existing and new GOHT charge heaters combined to reduce emissions by 5.2 tpy.
- Accounting for a 7.4 tpy reduction in emissions from the fluid catalytic cracking unit (FCCU) regenerator.
- Limiting emissions from the equipment in the Tier 3 Fuels Project and the FCCU regenerator to make the 1 tpy decrease enforceable.

In addition, Marathon reduced the permitted SO<sub>2</sub> emissions for the Detroit Heavy Oil Upgrade Project (DHOUP) from 371 tpy to 300 tpy. Marathon has also committed to reducing emissions from two flare systems at the facility. The reduction in flare emissions was not accounted for in the permit review.

The Response to Comments (RTC) document provides an overview of the emission reductions Marathon has committed to make and MDEQ's responses to the comments received during the public comment period and at the public hearing. It also identifies special conditions which have been modified and provides the rationale for modifying the proposed special conditions. The changes are discussed in the RTC document. The RTC document, the Permit Terms and Conditions and additional information regarding Marathon are available at <http://www.michigan.gov/deqairnews> through the Marathon Petroleum LP link under Spotlight.

Changes made to PTI 118-15 include:

- Added a limit on the total reduced sulfur (TRS) content of the refinery fuel gas burned in the new GOHT charge heater. This limit is lower than the TRS content used by Marathon Petroleum in their original PTI application.
- Added monitoring and reporting of the TRS content of the refinery fuel gas burned in the new GOHT charge heater.
- Reduced the carbon monoxide emission limit for the new GOHT charge heater to 0.01 pound per million British Thermal Unit (lb/MMBtu) on an annual average basis and required a continuous emission monitoring system for carbon monoxide.
- Removed references to Renewable Operating Permit appendices.
- Required volatile organic compound and sulfuric acid mist emission testing for the new GOHT charge heater.
- Required a system to route sulfur pit vapors to the front end of the Unit 42 Sulfur Recovery Unit be installed before the Tier 3 Fuels Project starts operation.
- Added a 100 MMBtu/hr, annual average, combined heat input rate limit for the existing GOHT charge heater and the new GOHT charge heater.
- Added a sulfur dioxide emissions cap for the emission units in the Tier 3 Fuels Project and the fluid catalytic cracking unit.
- Required low oxides of nitrogen burners and a flue gas recirculation system be installed on the Zurn Boiler before the Tier 3 Fuels Project starts operation.
- Reduced the sulfur dioxide emission limit for the DHOUP to 300 tons per year.
- Required installation of a flare gas recovery system upstream of the Unifiner Flare by June 30, 2016.
- Required installation of additional flare gas recovery capacity upstream of the Coker Flare by December 31, 2018.

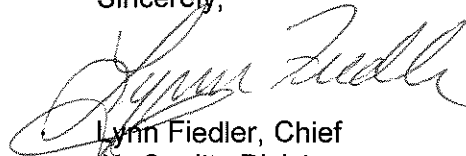
Change to PTI 122-15:

- The sixteen existing liquefied petroleum gas pressurized storage tanks are required to be removed from service within 180 days after the last new tank authorized by PTI 122-15 is put into service.

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Thank you for your input regarding our review of these Permit applications. If you have any questions, please contact Mr. Andrew Drury, MDEQ, at 517-284-6792; drurya@michigan.gov; or MDEQ, P.O. Box 30260, Lansing, Michigan 48909-7760; or you may contact me.

Sincerely,



Lynn Fiedler, Chief  
Air Quality Division  
517-284-6773

cc: The Honorable Stephanie Chang, State Representative  
Mayor Mike Duggan, City of Detroit  
Mayor Stacy Striz, City of Melvindale  
Mayor Drew Dilkens, City of Windsor  
Ms. Laurel Broten, Minister, Ontario Ministry of the Environment  
Ms. Madeleine Godwin, Ontario Ministry of the Environment, Windsor  
Mr. Mike Moroney, Ministry of the Environment, Sarnia/Windsor District  
Mr. Doug McDougall, Ministry of the Environment, Windsor Area Office  
Ms. Karen Clark, Ministry of the Environment, Air Policy and Climate Change Branch  
Mr. Chris Manzon, Pollution Control Services, City of Windsor  
Mr. Mark J. Burrows, International Joint Commission  
Ms. Averil Parent, City of Windsor  
Ms. Genevieve Damico, United States Environmental Protection Agency, Region V  
Mr. Constantine Blathras, United States Environmental Protection Agency, Region V  
Ms. Sarah Rofles, United States Environmental Protection Agency, Region V  
Mr. Mike Ahern, Ohio Environmental Protection Agency  
Ms. Cathy Garrett, Wayne County Clerk  
Ms. Ilona Varga, Wayne County Commissioner  
Dr. Abdul El-Sayed, City of Detroit, Executive Director and Health Officer  
Mr. Raymond Scott, City of Detroit, Buildings, Safety Engineering and Environmental Department (BSEED)  
Mr. Paul Max, City of Detroit, BSEED  
Mr. Jim Sygo, Chief Deputy Director, MDEQ  
Ms. Melanie Brown, Communications Director, MDEQ  
Ms. Wilhemina McLemore, MDEQ  
Mr. Andrew Drury, MDEQ