

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
**ACTIVITY REPORT: On-site Inspection**

B280456588

<b>FACILITY:</b> DTE Electric Company - Wilmot Peaking Facility		<b>SRN / ID:</b> B2804
<b>LOCATION:</b> 5977 EAST BEVENS ROAD, KINGSTON TWP		<b>DISTRICT:</b> Bay City
<b>CITY:</b> KINGSTON TWP		<b>COUNTY:</b> TUSCOLA
<b>CONTACT:</b> Stefanie Ledesma , Associate Environmental Engineer		<b>ACTIVITY DATE:</b> 12/29/2020
<b>STAFF:</b> Nathanael Gentle	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> MAJOR
<b>SUBJECT:</b> Scheduled Inspection of MI-ROP-B2804-2018		
<b>RESOLVED COMPLAINTS:</b>		

**On December 29, 2020 AQD staff conducted an onsite inspection at DTE Electric Company – Wilmot Peaking Facility. The purpose of the inspection was to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environment, Great Lakes and Energy, Air Quality Division (EGLE-AQD) Administrative Rules; Renewable Operating Permit (ROP) No. MI-ROP-B2804-2018. Requested records were provided by Stefanie Ledesma (formerly Zanke), Staff Environmental Engineer.**

**Facility Description:**

**The Wilmot Peaking Facility is located at 5977 East Bevens Road, Kingston Township, Michigan 48741. The facility is used for energy production during periods of elevated demand in the local grid. The site consists of five diesel/ No.2 fuel oil generators and their associated fuel tanks. Each compression ignition reciprocating internal combustion engine (CI RICE) is a MP45 20 cylinder, rated at 3,600 horsepower. A 2.75megawatt electrical generator is connected to each. All five engines were installed in December 1968. Emission reduction is achieved using oxidation catalysts, installed on all five engines in 2012. Operation of the facility is conducted remotely from the DTE Electric Company offices in Southeast Michigan. The source is a minor source for Hazardous Air Pollutants (HAPs) and a major source of nitrogen oxides, sulfur dioxide, and carbon monoxide. In addition, the facility is subject to the National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) promulgated in 40 CFR Part 63, Subparts A and ZZZZ. All five emission units were exempt from New Source Review (NSR) permitting requirements at the time of their installation. Future modifications to the equipment may be subject to NSR. No emission units at the stationary source are currently subject to the Prevention of Significant Deterioration (PSD) regulations of The Michigan Air Pollution Control Rules Part 18, Prevention of Significant Deterioration of Air Quality or 40 CFR 52.21 because the process equipment was constructed/installed prior to June 19, 1978, the promulgation date of the PSD regulations.**

**FG-PEAKERS: Compliant**

**Site Inspection**

**AQD staff arrived onsite at approximately 10:14 AM. The site was secured by a chain link fence with barbed wire. One exterior building was located within the fenced in area. DTE vehicles were visible outside the building. A DTE employee named Chris came out of the exterior building and met me at the fence. I explained who I was and provided a business card. Chris said a crew was onsite to conduct battery maintenance. I asked if I could come view the**

engines. He said no one was allowed past the fence without a full FR suit. Being I only had a FR jacket, I had to remain on the outside of the fence. The site contained 5 engines with catalysts visually verified to be installed on each stack. No engines were operating at the time of the onsite inspection. One clear plastic tank was located between engines. The site contained one large diesel storage tank and an associated fueling station. Signage on the fueling station said to call the System Operations Supervisor at 1-313-235-9444 in the case of an emergency. A meter was attached to the fueling station that read 6063 gallons.

### Records Review

A records request was submitted prior to conducting an onsite inspection. The following records were received between December 14-16, 2020:

- Fuel Oil Supply Agreement dated December 9, 2016
- First Amendment to the Fuel Oil Supply Agreement dated November 29, 2018
- Wilmot Catalyst Compliance Data for the last 24 months
- Maintenance Records for the last 24 months from DTE's Maximo Work Order System
- MACT ZZZZ Notification of Compliance Status dated January 24, 2019
- Test Plan Approval Letter for 40 CFR, Part 63, NESHAP Subpart ZZZZ RICE MACT compliance emissions testing dated November 17, 2020

Records for fuel oil supply illustrate that No. 2 diesel is used at the facility. Specifications provided show a sulfur content of 15 wt. ppm, meeting ROP requirements. Catalyst compliance data for the last 24 months provided show a CPMS is installed on equipment measuring pressure drop across the catalyst and catalyst inlet temperature. Records for catalyst inlet temperature are reduced to four-hour rolling averages. Values recorded for pressure drops across all five catalyst are within 2 inches H<sub>2</sub>O of initial performance test values. Additionally, values for four-hour rolling averages of catalyst inlet temperature for all five emission units range from 561.701575° F to 806.6799125° F, meeting the requirement that oxidation catalyst inlet temperature is greater than or equal to 450°F and less than or equal to 1350°F during operation of FG-PEAKERS. Maintenance records are maintained. Records for the last 24 months were provided showing regular maintenance is performed, including annual inspections. The most recent annual inspection was completed on October 5, 2020. Facility personnel reported that as of December 16, 2020, no malfunctions had occurred over the last 24 months. Testing of catalyst system efficiency for each engine is required every 8,760 hours or 3 years, whichever comes first. MACT ZZZZ Notification of Compliance Status was provided for the most recent testing completed November 26-28, 2018. Results showed CO emissions less than 23 ppmv dry at 15% O<sub>2</sub> for all five catalysts, compliant with ROP requirements. Upcoming testing is scheduled for November 22-30, 2021.

### Summary

At the time of inspection and records review, DTE Electric Company – Wilmot Peaking Facility appears to be in compliance with permit number MI-ROP-B2804-2018.

NAME *Nathanael Dentel* DATE 1/6/21 SUPERVISOR *Chris Hare*