DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B280554258

FACILITY: DTE Electric Company - Hancock Peaking Facility		**SRN / ID:** B2805
LOCATION: 1781 HAGGERTY ROAD, COMMERCE TWP		**DISTRICT:** Southeast Michigan
CITY: COMMERCE TWP		**COUNTY:** OAKLAND
CONTACT: Joe Neruda ,		**ACTIVITY DATE:** 06/15/2020
STAFF: Shamim Ahammod	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Conducted a scheduled digital inspection of DTE Electric Company-Hancock Peaking Facility		
RESOLVED COMPLAINTS:		

On Monday, June 15, 2020, I (Shamim Ahammod), Michigan Department of Environment, Great Lakes and Energy (EGLE)-Air Quality Division (AQD) staff, conducted a scheduled digital inspection of DTE Electric Company-Hancock Peaking Facility (facility) located at 1781 Haggerty Road, Commerce TWP, Michigan. The purpose of the inspection was to determine the company's compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Air Pollution Control Rules; and the conditions of ROP No. MI-ROP-B2805-2017.

DIGITAL INSPECTION

On June 3, 2020, I sent an email to Ms. Stefanie Ledesma, Staff Environmental Engineer of DTE Electric Company asking to inspect the facility and safety requirements in place at DTE Electric Company -Hancock Peaking Facility. Amanda Kosch, Technical Supervisor of DTE Electric Company replied my email and informed me that Ms. Ledesma is on leave. Ms. Kosch provided a facility contact information (Joe Neruda, Environmental specialist of DTE Electric Company) for the inspection purpose.

On June 15, 2020, at 2 PM, I arranged a Microsoft team meeting for the digital inspection with Joe Neruda, Environmental specialist of DTE Electric Company. I made a video call on that day. During my digital inspection, I observed the facility-wide natural gas meter and noted a reading of 180521 thousand cubic meter (MCF).

I also observed the control panels for each turbine. I noted the following readings from the hour meters:

Emission Unit ID	Emission Unit Description	Total operational hours as of June 15, 2020	Total starts as of June 15, 2020
EGCTG11-1	**Natural gas-fired combustion turbo-generator with 18.5 MW capacity.**	**2217 hours**	**122**
EGCTG11-2	**Natural gas-fired combustion turbo-generator with 18.5 MW capacity.**	**962 hours**	**143**
EGCTG11-3	**Natural gas-fired combustion turbo-generator with 18.5 MW capacity.**	**1578 hours**	**48**
EGCTG11-4	**Natural gas-fired combustion turbo-generator with 21.5 MW capacity.**	**2373 hours**	**81**

Emission Unit ID	Emission Unit Description	Total operational hours as of June 15, 2020	Total starts, as of June 15, 2020
EGJTG12-1 Each jet engine turbines have two engines	**Natural gas-fired jet turbo generator with 41.27 MW capacity.**		
12-1A		**19222.7**	**91**
12-1B		**19437.2**	**87**
EGJTG12-2 Each jet engine turbines have two engines	**Natural gas-fired jet turbo-generator with 41.27MW capacity.**		
12-2A		**20285.7**	**75**
12-2B		**19437.2**	**87**

SOURCE DESCRIPTION

The Hancock Peaking Facility is designed to generate electricity for sale under conditions of peak demand. The Hancock Peaking station consists of four natural gas fired combustion turbine electric generators (EGCTG11-1, 11-2, 11-3 and 11-4) and two natural gas fired jet engine turbine electric generators (EGJTG 12-1 and 12-2). Each jet engine turbine has two engines whereas the combustion turbine only has one engine. In a combustion turbine generator, hot combustion gas expands through a turbine which spins a generator to produce electricity. All of the turbine generators were installed prior to state requirements to obtain a permit to install and are considered "grandfathered' units with respect to R 336.1201.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year 2019.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	**3.213**
Lead (Pb)	
Nitrogen Oxides (NO_x)	**25.6**
Particulate Matter (PM)	**0.26**
Sulfur Dioxide (SO_2)	
Volatile Organic Compounds (VOCs)	**0.082**

FGPEAKING
RECORD REVIEW AND REGULATORY ANALYSIS

Process/Operational Restrictions

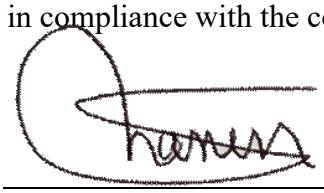
Per SC III.1, The permittee shall only fire pipeline quality sweet natural gas in the combustion turbines at this facility. Pipeline quality natural gas definition in 40 CFR 60.331(u), "Natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet. Equivalents of this in other units are as follows: 0.068 weight percent total sulfur, 680 parts per million by weight (ppm) total sulfur, and 338 parts per million by volume (ppmv) at 20 degrees Celsius total sulfur. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1100 British thermal units (Btu) per standard cubic foot."

The permittee provided Gas Analysis report dated on 9/27/2019 as follows:
0.00001 or less weight percent total sulfur, 1 or less parts per million by weight (ppm) total sulfur, and 0.032 or less grain of total of total sulfur. I reviewed a record from Michigan Public Service Commission (M.P.S.C) uttering that the gas delivered by Customer shall have a Total Heating Value per Cubic Foot of not less than 950 BTU nor more than 1,100 BTU.

MONITORING/RECORDKEEPING
Per SC VI.1, the permittee provided the record of the source-wide natural gas consumption for each calendar month from June 2019 through May 2020.

source-wide natural gas consumption for the last 12 months (MCF):			
	EGCTG11-1, 11-2, 11-3 and 11-4	**EGJTG 12-1 and 12-2**	**Source Wide**
June, 2019	**1161**	**7303**	**7303**
July, 2019	**0**	**5494**	**5494**
August, 2019	**0**	**2192**	**2192**
September, 2019	**0**	**0**	**0**
October, 2019	**0**	**6592**	**6592**
November, 2019	**198**	**0**	**0**
December, 2019	**0**	**0**	**0**
January, 2020	**0**	**0**	**0**
February, 2020	**0**	**0**	**0**
March, 2020	**0**	**0**	**0**
April, 2020	**0**	**0**	**0**
May, 2020	**0**	**0**	**0**

Based on digital inspection, review of records, and discussion with facility's staff, the facility appears to be in compliance with the conditions of ROP No. MI-ROP-B2805-2017.

NAME  DATE July 20,2020 SUPERVISOR