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

B722171261

FACILITY: DTE Gas Company - Milford Compressor Station		**SRN / ID:** B7221
LOCATION: 3515 CHILDS LAKE RD., MILFORD		**DISTRICT:** Warren
CITY: MILFORD		**COUNTY:** OAKLAND
CONTACT: John Leonard , Senior Environmental Specialist – Gas & Electric		**ACTIVITY DATE:** 02/22/2024
STAFF: Shamim Ahammod	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Conducted a scheduled inspection of DTE Gas Company-Milford Compressor Station to determine the company's compliance with the requirements of Renewable Operating Permit (ROP) No. MI-PTI-B7221-2020.		
RESOLVED COMPLAINTS:		

On February 22, 2024, Michigan Department of Environment, Great Lakes and Energy (EGLE) staff, and I (Shamim Ahammod) conducted a scheduled inspection of DTE Gas Company-Milford Compressor Station located at 3515 Childs Lake Road, Milford, 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 the Renewable Operating Permit (ROP) No. MI-PTI-B7221-2020.

SOURCE DESCRIPTION

The DTE Gas Company - Milford Compressor Station functions as a booster station designed to compress natural gas and elevate the line pressure. At this facility, the units receive natural gas from the pipeline transmission system, compress it, and then reintroduce it into the pipeline transmission system at an increased pressure. It is important to note that as the gas pressure rises during compression, the temperature of the gas also increases. Additionally, there are no gas storage fields present at this facility.

Regulatory Analysis

The stationary source is in Oakland County, which is currently designated by the United States Environmental Protection Agency (USEPA) as attainment for all criteria pollutants.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70 because the potential to emit of carbon monoxide and nitrogen oxides exceed 100 tons per year and the potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act, is equal to or more than 10 tons per year and/or the potential to emit of all HAPs combined is equal to or more than 25 tons per year.

The four DeLaval engines (EU006, EU007, EU008, and EU009) are identical 4,375 horsepower, natural gas fired DELAVAL engines installed in 1980. The DELAVAL engines are subject to the National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines promulgated in 40 CFR 63, Subparts A and ZZZZ.

The four DeLaval engines (EU006, EU007, EU008, and EU009) at the stationary source were subject to review under the Prevention of Significant Deterioration (PSD) regulations of 40 CFR 52.21, for a Best Available Control Technology (BACT) analysis because at the time of New Source Review permitting the potential to emit of carbon monoxide and nitrogen dioxides was greater than 250 tons per year.

The facility has an existing Federal PSD permit (EPA-5-A-79-32) which was issued on September 28, 1979. To meet PSD, a Best Available Control Technology (BACT) analysis was required for nitrogen oxides (NOx) and carbon monoxide (CO) emissions. Since no control equipment existed at that time for natural gas-fired reciprocating internal combustion engines, the BACT determination was based on a review of alternative engines. The result was the use of the DeLaval engines along with the emission limits for NOx and CO as required in the federal PSD permit EPA-5-A-79-32. At the time the PSD permit was issued, the area where the facility was located was designated as nonattainment for ozone. The EPA Emission Offset Interpretative Ruling dated January 16, 1979, allowed for an exemption to the provisions of the offset ruling if the allowable nonmethane hydrocarbon emissions did not exceed 50 tons per year. Therefore, PSD permit EPA-5-A-79-32 was issued with 49 tons per year maximum allowable emission limit of nonmethane hydrocarbons to keep the facility from being subject to the offset ruling.

EUOFFICEGENSET and EUNEMGEN at the stationary source are subject to the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and JJJJ. EUOFFICEGENSET is an 81 HP natural gas-fired emergency generator was installed on June 1, 2013, and is used to supply electricity to the office trailers and garage during a power outage. EUNEMGEN is a 1,818 hp natural gas-fueled emergency genset engine equipped with low NOx technology (turbocharger and aftercooler) that was manufactured in 2011 or later and installed on December 1, 2017, to provide electrical power to the site when the normal source of electrical power is disrupted.

Although EUOFFICEGENSET and EUNEMGEN are also subject to 40 CFR 63 Subpart ZZZZ, per 40 CFR 63.6590(c)(6), EUOFFICEGENSET will meet those requirements by meeting the requirements of 40 CFR 63 Subpart JJJJ. Per 40 CFR 63.6590(b)(1), since EUNEMGEN is an emergency engine and only provides power for the site's backup, electrical needs (i.e. does not provide power for NERC emergency demand response or voltage support on an electrical grid as described in 40 CFR 63.6640(f)(2)(ii) & (iii)), the requirements for EUNEMGEN under 40 CFR 63 Subpart ZZZZ are limited to the initial notification requirement.

Seven heating boilers with heat input capacities less than or equal to 5 MMBtu/hr are located at the stationary source and are subject to the National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial, and

Institutional Boilers and Process Heaters promulgated in 40 CFR Part 63, Subparts A and DDDDD. EUCOMPBLDGBLR, installed in 1980, is a 2.51 MMBtu/hour natural gas-fired boiler used to provide space heat to the compressor and auxiliary buildings and is classified as an existing unit under Subpart DDDDD. EUAUXBOIL2A, 3A, 2B, & 3B, 2C are 3 MMBtu/hr natural gas-fired boilers (equipped with ultra-low NOx burners), installed in 2018, that are used to provide space heating to various buildings and are classified as new units subject to Subpart DDDDD. EUAUXBOIL2C & 3C are 1 MMBtu/hr boilers (equipped with ultra-low NOx burners), installed in 2018, that are used to heat fuel gas and are classified as new units subject to Subpart DDDDD. All seven boilers have reoccurring five-year (61 months) tune-up requirements under that subpart.

EUWAUKESHA is an existing 750-horsepower four-stroke lean-burn (4SLB) natural gas-fired engine installed in 1980.
EUWAUKESHA is subject to the National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines promulgated in 40 CFR 63, Subparts A and ZZZZ. However, according to 63.6590(b)(3)(ii) **(Stationary RICE subject to limited requirements)**, they do not have to meet the requirements of 40 CFR 63, Subparts A and ZZZZ.

No emission units have emission limitations or standards that are subject to the federal Compliance Assurance Monitoring (CAM) rule pursuant to 40 CFR Part 64, because all emission units at the stationary source either do not have a control device or those with a control device do not have potential pre-control emissions over the major source thresholds.

Onsite Inspection
On February 22, 2024, at 1:20 PM, I arrived at the facility and was greeted by Dan Fulara, DTE. I showed my photo credentials and explained the purpose of the inspection. Dan Fulara instructed me on safety in the facility. Before walking through the facility, at the conference room, I met with DTE staff members Chris Conley and John Leonard. In a short meeting, I discussed the ROP requirements and what I wanted to observe during my field visit. After a short meeting, we walked through the facility, learned about the process, and verified the ROP's general and special conditions as outlined in MI-ROP-B7221-2020.

At 1:46 PM, I recorded the suction pressure, discharge pressure, and flow rate of the operational emission units within the control room during my visit.
UNIT 2100

- The suction pressure was 585 PSIG.
- The discharge pressure was 828 PSIG.
- Flow rate was 19.9 MMSCF/H.

UNIT 2200

- Suction pressure was 585 PSIG.
- The discharge pressure was 825 PSIG.
- Flow rate was 19.1 MMSCF/H.

UNIT 503

- Suction pressure was 591 PSIG.
- Discharge pressure was 819 PSIG.
- Flow rate was 8.5 MMSCF/H.

During my visit, the total calculated flow rate at the station was 47.5 MMSCF per hour.

Full Compliance Evaluation (FCE)

EUWAUKESHA
An existing Waukesha brand 410 KW rated natural gas-fired emergency generator is used to supply electricity to the compressor building during a power outage. This engine was not operating at the time of inspection. This RICE engine does not have to meet the requirements of 40 CFR part 63 Subpart ZZZZ per 63.6590(b)(3)(i), "Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions."

During my inspection, I confirmed the details on the nameplate of the EUWAUKESHA, noting that the power of the engine is 410 KW.

PROCESS/OPERATIONAL RESTRICTION(S)
Per SC III. 1, The permittee shall only burn pipeline-quality natural gas, as defined in 40 CFR 72.2 in EUWAUKESHA. Upon inspecting the engine's nameplate, I found that the engine is designed to run on natural gas.

EUOFFICEGENSET
An 81 HP-rated natural gas-fired emergency engine is used in emergencies to generate electricity for the office and the garage. This engine is subject to the New Source Performance Standard for Spark Ignition Internal Combustion Engines promulgated in 40 CFR 60 Subpart JJJJ.

During the inspection, I observed on the engine's nameplate that the engine has a capacity of 45 kW, which is equivalent to 60 HP.

Emission Limit (EUOFFICEGENSET)

Pollutant	Limit	Time Period/ Operating Scenario

Pollutant	Limit	Time Period/ Operating Scenario
1. HC + NOx[a]	10 g/hp-hr	Per horsepower hour, per engine
2. CO	387 g/hp-hr	Per horsepower hour, per engine

The permittee is required to comply with the emissions standards in SC I.1 and I.2 by maintaining a maintenance plan for EUOFFICEGENSET and keeping records of the maintenance activities conducted, as stated in SC III.2, SC III.3, and SC VI.4. See SC III.2 for more information.

Material Limits (EUOFFICEGENSET)
Per SC II.1, the permittee shall only fuel EUOFFICEGENSET with pipeline-quality natural gas. The permittee provided data on the natural gas consumption for the EUOFFICEGENSET engine, and upon reviewing their fuel usage records, I observed that the permittee utilized only natural gas as fuel from January 2022 through January 2024.

Process/operational restrictions (EUOFFICEGENSET)
SC III.1 pertains to certified engines.

- EUOFFICEGENSET is not certified. Compliance is assessed in SC III.2.

Per SC III.2, since EUOFFICEGENSET is not a certified engine, as specified by 40 CFR 60, Subpart JJJJ, DTE is required to keep a maintenance plan for EUOFFICEGENSET and records of conducted maintenance and shall, to the extent practicable, maintain and operate EUOFFICEGENSET in a manner consistent with good air pollutant control practice for minimizing emissions, but no performance testing is required.

John Leonard mentioned that the facility is running the engine in a non-certified manner. Per SC III.2, the permittee must maintain a maintenance plan for EUOFFICEGENSET and keep records of maintenance activities; however, there is no requirement for a performance test to be conducted.

The permittee has conducted the following maintenance in 2021, 2022, and 2023:

Date	Engine Hours	Work performed
3-17-2021	317.5	Changed oil, checked battery, and checked coolant level
11-20-2021	323.9	Checked the battery, checked the oil and, added coolant
3-7-2022	326	Checked coolant level
8-2-2022	415	

		Power outage 4 days, Changed the oil, Checked the battery, added coolant, contractor replaced the transfer switch
1-3-2023	417.4	Changed oil/filter, inspected battery, connections, and air filter.
3-10-2023	419.2	Checked levels.
6-2-2023	429.1	Added coolant, checked levels
9-2-2023	431.8	Inspected/checked levels.
12-1-2023	434.5	Added oil and checked filter.

Per SC III.3, The permittee is required to operate and maintain EUOFFICEGENSET such that it meets the emission limits in SC I.1 and SC I.2 over the entire life of the engine. The engine is not certified. Per SC III.2, the permittee keeps a maintenance plan for EUOFFICEGENSET and records of conducted maintenance The permittee is not required to conduct a performance test.

As allowed in SC III.4, the permittee operated the office emergency engine for non-emergency situations for 10.2 hours in 2023, which was below the limit of 100 hours per calendar year.

Design/equipment parameters (EUOFFICEGENSET)
SC IV.1, I inspected the non-resettable hour meter. During this inspection on February 22, 2024, the total operation time of the emergency generator was 436 hours. During my last inspection on January 24, 2023, the total operation time of the office emergency generator (EUOFFICEGENSET) was 417.2 hours.

Monitoring/recordkeeping (EUOFFICEGENSET)
As required in SC VI.1; the permittee documented the annual total operating hours of the emergency engine, with 10.2 hours used for non-emergency situations and 7.3 hours for emergencies.

Per SC VI.2, The permittee shall maintain records of all maintenance conducted on the engine. Details are explained in SC III.2 (Process/Operational restriction).

SC VI.3 pertains to certified engines. John Leonard said the facility is operating the engine in a non-certified manner.

Per SC VI.4, The permittee shall keep, in a satisfactory manner, records of the manufacturer’s emission-related written instructions and records that demonstrate that the engine has been maintained according to the manufacture emission-related written instructions.

- Details regarding maintenance records are explained in SC III.2 (Process/Operational Restrictions).

EUNEMGEN

EMISSION UNIT SPECIAL CONDITIONS

The facility operates an 1818 HP natural gas-fueled emergency generator to provide electrical power to the station and support equipment in the event power outage. The emergency engine is subject to the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and JJJJ. EUNEMGEN construction started on May 25, 2017, and operation began in June 2018.

- John Leonard said, the facility is operating the engine in a non-certified manner.

Testing/Sampling

The emergency generator is not certified. EUNEMGEN was started operating in June 2018. Per SC V.1.a, the permittee is required to conduct an initial performance test within 60 days but no later than 180 days after the initial startup of EUNEMGEN. Within the timeframe, the permittee conducted an emission test on the emergency generator for the Oxides of Nitrogen (NOx), Carbon Monoxide (CO), and Volatile Organic Carbon (VOC) on September 26, 2018. Air Quality Division's District Office received the emission test reports on February 15, 2019.

Per SC V.1.b, if a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4244. Conduct subsequent performance testing every 8,760 hours of engine operation or every three years, whichever comes first, thereafter, to demonstrate compliance with the applicable emission standards. The permittee conducted an emission test on the emergency generator for the Oxides of Nitrogen (NOx), Carbon Monoxide (CO), and Volatile Organic Carbon (VOC) on November 17, 2021. The upcoming emission test on the emergency generator for the Oxides of Nitrogen (NOx), Carbon Monoxide (CO), and Volatile Organic Carbon (VOC) should be done by November 2024.

Emission Limits

Per SC I.2, SC I.6, SC I.8, and 40 CFR 60.4233(e) of 40 CFR Part 60, Subparts A and JJJJ, the permittee conducted an emission test on the emergency generator for the Oxides of Nitrogen (NOx), Carbon Monoxide (CO) and Volatile Organic Carbon (VOC) on November 17, 2021. Based on the test report, the results of the emissions testing and permit limit are given below:

	SC I.2	SC I.1	SC I.6		SC I.8
Emission Unit	Oxides of Nitrogen (ppmvd@15% O_2)	Oxides of Nitrogen (lb/hr)	CO (ppmvd@15% O_2)	CO (lb/hr)	*NMNE Organic Compounds (ppmvd@15% O_2)
EUNEMGEN	77.9	0.95	290.9	2.24	3.6
Permit Limit	160	4.0	540	11.0	86

*NMNE-Non-methane Non-ethane

The results of the test indicated that NO_x, CO, and VOC emissions for EUNEMGEN met the permit limits.

To demonstrate compliance with SC I.3, and SC I.4, the permittee calculated the PM10 and PM2.5 emission using the USEPA AP-42 emission factors and met the permit limit.

	SC I.3 of EUNEMGEN	SC I.4 of EUNEMGEN
Emission Unit	PM10[1]	PM2.5[1]
EUNEMGEN	0.00999 lb/MMBTU	0.00999 lb/MMBTU
Permit Limit	0.01 lb/MMBTU	0.01 lb/MMBTU

[1]PM10, and PM2.5 emission factors are from USEPA AP-42, Chapter 3.2, Table 3.2-2 for 4-stroke lean burn RICE.

As required in SC I.7**,** GHGs as CO_2e emissions limits for EUNEMGEN per 12-month rolling period is 247 TPY. Based on the records provided by John Leonard, as required in SC VI.8, from January 2022 through January 2024, the highest GHGs as CO_2e emissions from the emergency generator was 22.29736 Tons for the 12-month rolling period ending in June 2023.

Material Limits

Per SC II.1, the permittee shall burn only pipeline-quality natural gas in EUNEMGEN. Per 40 CFR 72.2, for a gaseous fuel to qualify as natural gas, the fuel must either be ≥ 70% methane by volume or must have a gross calorific value (GCV) between 950 and 1100 BTU/SCF. According to a record provided by John Leonard, the permittee burns only pipeline-quality natural gas that contains 91.3871% of Methane and 1075.07 BTU of calorific value.

Process/Operational Restrictions

SC III.1; the highest annual number of hours that the permittee operated the emergency generator was 145.9 hours during the 12-month rolling period ending in June 2023.This is below the maximum allowable limit of 205 hours per year.

SC III.5 and 40 CFR Part 60 Subpart JJJJ; according to John Leonard, the permittee follows the manufacturer's (CAT) recommendations for the maintenance plan for EUNEMGEN.

According to SC III.2; the operational hours for non-emergency use of EUNEMGEN from January 2023 to December 2023 were 26.6 hours, which is below the annual limit of 100 hours.

Design/Equipment Parameters
Per EUNEMGEN, SC IV.1 requirement, the permittee is mandated to install and maintain a non-resettable hour's meter on EUNEMGEN to monitor its operational hours. During the inspection conducted on February 22, 2024, it was noted that the non-resettable hour's meter displayed a reading of 328 hours.

As required in SC IV.2, the EUNEMGEN nameplate capacity shall not exceed 1,300 ekW for the genset or 1,818 HP for the engine, as certified by the equipment manufacturer. During the inspection, I checked the generator nameplate and found that the engine's rated power is 1300 KW.
As required in SC IV.3, the permittee shall install, calibrate, maintain, and operate, in a satisfactory manner, a device to monitor and record the fuel usage for EUNEMGEN on a continuous basis.

Based on my request, John Leonard informed me via email that Root Meter monitors and records the fuel usage in EUNEMGEN. The Root Meter is installed on the outside of Plant 2 Auxiliary building. The EUNEMGEN is inside the auxiliary building on the other side of the wall from the meter. Per manufacturer's instructions, "the CTR, CD, ICEX, TC, TD and solid state pulser do not require scheduled maintenance." DTE Energy-Milford Compressor Station uses the TC version (TC2697334) of the Root Meter. Therefore, no maintenance is required on this unit. However, the technicians take readings on this unit monthly. The technicians would immediately know if the unit was not working by both noise and the dials not moving. The unit would be repaired or replaced if it was not working.

I reviewed the records of fuel usage for EUNEMGEN from January 2022 through January 2024.

Monitoring/recordkeeping
Per SC VI.2.b**,** the engine is not certified. The permittee conducted an emission test on the emergency generator on November 17, 2021. Details are explained in the emission limit and testing/sampling section.

For the non-certified engine (EUNEMGEN): The permittee is required to keep records of a maintenance plan, as required by SC III.5, and maintenance

activities. The engine is non-certified. The permittee maintains a maintenance plan as required by SC III.5.

Per VI.4, The permittee is required to keep either vendor emissions guarantee for NOx, CO, PM10, and PM2.5 or the testing required in SC V.2, for EUNEMGEN. Details are explained in the Emission limit section.

Per SC VI.5, The permittee shall monitor and record the total hours of operation and the hours of operation during non-emergencies for EUNEMGEN, on a monthly and 12-month rolling time period basis and to document how many hours are spent for the emergency operation of EUNEMGEN, including what classified the operation as an emergency and how many hours are spent for non -emergency operations. Details are given below:

Month	Monthly hours (total use)	Monthly Hours for emergency use	Monthly Hours (non-emergency)	12 months rolling (calculated) 205 hour limit	Reason for emergency
January '22	2.1	0	2.1	31.7	NA
February	2	0	2	31.8	NA
March	2.1	0	2.1	31.7	NA
April	2	0	2	31.3	NA
May	2.6	0	2.6	31	NA
June	3.1	0	3.1	32.2	NA
July	3.2	0	3.2	32.8	NA
August	47.1	45	2.1	77.2	Power outage 8/30-9/2
September	47.1	45	2.1	122.8	Power outage 8/30-9/2
October	2.1	0	2.1	122.9	NA
November	2.1	0	2.1	118	NA
December	5	0	5	120.5	NA
January '23	1.6	0	1.6	120	NA
February	2.2	0	2.2	120.2	NA
March	2.1	0	2.1	120.2	NA
April	2.5	0	2.5	120.7	NA
May	2.8	0	2.8	120.9	NA
June	28.1	27.1	1	145.9	power outage 6/26-6/27
July	2	0	2	144.7	NA
August	3	0	3	100.6	NA
September	2	0	2	55.5	NA
October	2.8	0	2.8	56.2	NA
November	2.1	0	2.1	56.2	NA
December	2.5	0	2.5	53.7	NA

January '24	4.7	0	4.7	56.8	NA

SC VI.6, John Leonard provided me with the natural gas consumption data for EUNEMGEN on a monthly basis spanning from January 2022 to January 2024.

Per SC VI.7, The permittee shall keep records of all notifications submitted to comply with 40 CFR Part 60 Subpart JJJJ, and all documentation supporting any notification. Details are explained in the reporting section.
Per SC VI.8, the permittee provided the record of monthly and 12-month rolling total CO_2 e mass emissions for EUNEMGEN from January 2022 through January 2024.

Reporting
As required in SC VII.1, the permittee notified the AQD District Office within 30 days,that the construction of the emergency generator (EUNEMGEN) was started on May 25, 2017.

As specified in SC VII.2, the permittee shall submit a notification specifying whether EUNEMGEN will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of EUNEMGEN and within 30 days of switching the manner of operation.

The emergency engine (EUNEMGEN) started operation in June 2018. AQD district office received the notification that EUNEMGEN will be operated as a non -certified emergency generator via email.
As required in SC VII.3. a through e., the permittee submitted an emergency engine initial notification to the AQD district office.
Per SC VII.4 and 40 CFR 63.6645(f) of 40 CFR Part 63 Subparts A and ZZZZ-NESHAP for RICE ENGINE), the permittee submitted an initial notification for EUNEMGEN including the information in 40 CFR 63.9(b)(i)-(v) on June 14, 2019.

Other requirements
Per SC IX.1, ***a***nd 40 CFR 60.4233(e) of 40 CFR Part 60, Subparts A and JJJJ, the permittee conducted an emission test on the emergency generator for the Oxides of Nitrogen (NOx), Carbon Monoxide (CO), and Volatile Organic Carbon (VOC) on November 17, 2021.

SC IX.1, ***a***nd 40 CFR 60.4245(a) of 40 CFR Part 60, Subparts A and JJJJ, and SC VII.3, the permittee keeps of record of all notifications submitted to AQD.
In compliance with SC IX.2, 40 CFR 63.6645(f) of 40 CFR Part 63 Subparts A and ZZZZ-NESHAP for RICE ENGINE), the permittee submitted an initial notification for EUNEMGEN including the information in 40 CFR 63.9(b)(i)-(v).

FGDELAVALS
Flexible Group Conditions

The four DeLaval engines (EU006, EU007, EU008, and EU009) are identical 4,375 horsepower, natural gas-fired DELAVALS engines installed in 1980. The DELAVALS engines are subject to the National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines promulgated in 40 CFR 63, Subparts A and ZZZZ. Per 63.6590(b)(3)(ii) **(Stationary RICE subject to limited requirements),** they do not have to meet the requirements of 40 CFR 63, Subparts A and ZZZZ. The main purpose of the engines is to compress the gas and boost the pipeline pressure.

Emission Limits and Stack test

Testing/sampling
As specified in SC V.1, the permittee is required to conduct emission testing for non-methane hydrocarbons, nitrogen oxides, and carbon monoxide on each engine once per ROP renewal cycle. The last ROP permit (ROP No. MI-ROP-B7221-2015b) was renewed on August 20, 2015, and expired on August 20, 2020. The permittee was required to conduct emission testing on each engine by August 20, 2020, and the permittee conducted emission tests on units 501-504 on April 29-30, 2020**.** Per SC I.2, and SC I.3, the results of the emission tests performed on units 501-504 on April 29-30, 2020, are given below:

	Carbon Monoxide (gram/BHP-hr)	Oxides of Nitrogen (NOx) (gram/BHP-hr)
EU006 (Engine#501)	1.50	9.77
EU007 (Engine#502)	1.10	5.50
EU008(Engine#503)	1.10	1.30
EU009 (Engine#504)	0.85	4.50
Permit limit	1.75 gram/B-HP)	11.5 gram/B-HP

Per a review of the stack test results, it appears the permittee complies with the emission limits.

The current permit (ROP No. MI-ROP-B7221-2020) became effective on December 22, 2020, and will expire on December 22, 2025. The permittee is required to conduct emission testing on each engine by December 22, 2025.

Per SC I.1, the non-methane hydrocarbon emission from FGDELAVALS engines is 49 tpy per 12-month rolling period as determined at the end of each calendar month.
From January 2022 through January 2024, per 12-month rolling period records, the non-methane hydrocarbon emission from FGDELAVALS engines was zero.

Material Limit
Per SC II.1, the permittee shall only fire pipeline-quality natural gas in the engines. Per 40 CFR 72.2, for a gaseous fuel to qualify as natural gas, the fuel must either be ≥ 70% methane by volume or must have a gross calorific value (GCV) between 950 and 1100 BTU/SCF. According to a record provided by John Leonard, the permittee burns only pipeline-quality natural gas that contains 91.3871% of Methane and 1075.07 BTU of calorific value.

Monitoring/recordkeeping
In accordance with SC VI.1 and SC VI.II (monitoring and record-keeping), I received records of the fuel consumption and the operating hours for each engine monthly from January 2023 through January 2024 from John Leonard via email.

As specified in SC VI.3, I checked the records of dates/schedules and the type/nature of repairs and maintenance conducted on the engines for the year 2023.

Stack/Vent restrictions.
I observed the exhaust gases from the stacks were discharged unobstructed vertically upwards to the ambient air during this inspection.

Other requirements
As required in SC IX.1, the permittee uses four 4000 HP DeLaval natural gas-fired combustion engines in FGDELAVALS. Upon inspection of the nameplate on each Delaval engine, I observed that the capacity of each engine is 4000 BHP.

FGTURBINES

FGTURBINES consists of five **10,504** hp rated natural gas-fired combustion turbines (CT) units. Currently, the facility operates only three natural gas-fired CT units, EUTURBINE1, EUTURBINE2, and EUTURBINE3. These turbines started operating in October 2018. Each CT is equipped with dry ultra-low NOX burners and a combustion air inlet filter. The permittee never installed the following emission units: EUTURBINE4, and EUTURBINE5.
At the time of inspection, EUTURBINE1, and EUTURBINE2 were in operation.

Testing/Sampling (FGTURBINES)
Per SC V.1, within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of initial startup, the permittee shall verify NO_x emission rates from each unit in FGTURBINES, as required by federal Standards of Performance for New Stationary Sources, by testing at owner's expense, under 40 CFR 60.4400 of 40 CFR Part 60 Subparts A and KKKK. EUTURBINE1, EUTURBINE2, and EUTURBINE3 started operating in October 2018.

Per SC V.1, stack testing for the Oxides of Nitrogen (NOx), Carbon Monoxide (CO), and Particulate Matter (PM10 and PM2.5) was conducted for the three new natural gas-fired turbines at DTE Gas Company-Milford Compressor Station during December 4-28, 2018, under 40 CFR 60.4400 of 40 CFR Part 60 Subparts A and KKKK.
Based on the test report, the results of the NOx emissions testing are given below:

	NOx emission test conducted on December 4-28, 2018
Emission Unit	NOx (ppmvd@15% O2)
EUTURBINE1	8.1
EUTURBINE2	7.2
EUTURBINE3	2.8
Permit Limit	15

Per SC V.2, To demonstrate continuous compliance, the permittee shall perform subsequent performance tests to verify NOx emission rates from each unit in FGTURBINES, as required by federal Standards of Performance for New Stationary Sources, by testing at the owner's expense per 40 CFR 60.4400 of 40 CFR Part 60 Subparts A.

Per SC V.2.a, if the previous performance test exceeded 75 percent of the NOx emission limit, SC I.1, then the permittee shall perform annual performance tests which are no more than 14 calendar months following the previous performance test.

Per SC V.2.a, according to the test report (December 4^{th}-28^{th}, 2018), NOx emissions did not exceed 75 percent of the NOx emission limit. Therefore, the permittee does not need to perform annual performance tests but needs to conduct them over two years.

Per SC V.2.b. if the previous performance test was less than or equal to 75 percent of the NOx emission limit, SC I.1, then the permittee shall perform subsequent performance tests once every two years which are no more than 26

calendar months following the previous performance test. Per SC V.2.b, stack testing for the Oxides of Nitrogen (NOx) was previously conducted on Oct. 25-26, 2022, for the three new natural gas-fired turbines at DTE Gas Company-Milford Compressor Station, with the most recent test taking place on March 12-13, 2024.

The results of the emission testing conducted on March 12-13, 2024, are as follows per "Test Report for Formaldehyde (CH2O) and Oxides of Nitrogen (NOx) Emissions testing on EUTURBINE1-3 pursuant to ROP and part 60 Subpart KKKK requirements for Milford Compressor Station":

	NOx emission test conducted on March 12-13, 2024, Per SC I.1
Emission Unit	NOx (ppmvd@15% O2)
EUTURBINE1	9.5
EUTURBINE2	10.6
EUTURBINE3	8.9
Permit Limit	15

Per SC V.3, Within 180 days after the commencement of initial startup, the permittee shall verify PM10, PM2.5, and CO emission rates from each unit in FGTURBINES at maximum routine operating conditions, by testing at the owner's expense, per Department requirements. The permittee shall complete the required testing once every five years of operation, thereafter. Upon written approval of the AQD District Supervisor, subsequent testing may be conducted for a single unit of FGTURBINES as a representative unit.

EUTURBINE1, EUTURBINE2, and EUTURBINE3 started operating in October 2018.

Per SC V.3, the last stack testing for the Carbon Monoxide (CO) and Particulate Matter (PM_{10} and $PM_{2.5}$) for the three new natural gas-fired turbines at DTE Gas Company-Milford Compressor Station was conducted on December 4^{th}-28^{th}, 2018. The facility is required to subsequent tests once every 5 years. Therefore, the permittee conducted stack tests for Particulate Matter (PM10/2.5) and CO Emissions on EUTURBINE1 on August 15, 2023.

Per SC V.3, "Upon written approval of the AQD district Supervisor, subsequent testing may be conducted for a single unit of FGTURBINES as a representative unit."

A test plan for CO and PM10/PM2.5 testing on FGTURBINES at DTE Gas Milford Compressor Station was received on March 24, 2023. AQD approved the testing of EUTRURBINE1 as a representative unit for FGTURBINES on August 3, 2023. Therefore, the permittee conducted an emission test on one representative unit.

The stack tests for Particulate Matter (PM10/2.5) and CO Emissions on EUTURBINE1 were conducted on August 15, 2023. Summary of PM emission and CO emission are as follows:

	PM10/2.5 emission test conducted on August 15, 2023, Per SC I.3 and SC I.4	CO test conducted on August 15, 2023, SC I.5
Emission Unit	PM10/2.5 (lb/MMBTU)	CO (ppmvd@15% O_2)
EUTURBINE1	0.0039	1.4
Permit Limit	0.015	25

Emission Limits (FGTURBINES)
The emission limit of CO and PM10/2.5 is detailed in Section V (SC V.5) and Section VI (SC VI.5).
The emission limit of NOx is detailed in Section V (Testing/Sampling Conditions).

Per SC I.6 (Emission limit), the GHGs as CO2 e emission limit is 196998 tpy per 12-month rolling time period as determined at the end of each calendar month. The highest 12-month rolling total CO2e mass emissions for FGTURBINES was **87193.91** tons during the period ending in April 2023. As required in SC VI.3 (Monitoring/recordkeeping), DTE provided records of monthly and 12-month rolling total CO2e mass emissions for FGTURBINES to show compliance with SC I.6.

Month	Turbine 1 CO2e (tons)	Turbine 2 CO2e (tons)	Turbine 3 CO2e (tons)	Monthly total (tons)	12- month rolling total (tons)
January '22	2374.072	33.91057	551.0634	2959.046	54011.91
February	0	193.1775	249.5181	442.6956	53785.29
March	2696.587	1723.002	2424.905	6844.494	55446.84
April	2732.754	2020.101	1118.518	5871.374	55032.88
May	3334.849	3500.022	3125.745	9960.617	58055.03
June	3351.971	3439.103	2862.159	9653.232	59540.13
July	1950.488	3156.139	2613.37	7719.997	63969.61
August	3381.568	3007.821	802.9042	7192.293	64779.68
September	0	2404.2	2149.373	4553.573	63170.49

October	3293.772	1612.909	3267.294	8173.974	70093.95
November	3049.961	2178.705	1832.166	7060.832	73837.98
December	204.1271	2023.618	1564.067	3791.813	74223.94
January '23	106.5097	3234.777	2449.193	5790.479	77055.37
February	2713.31	1955.266	1982.674	6651.25	83263.93
March	2150.435	3595.184	2498.566	8244.185	84663.62
April	**2148.842**	**2878.815**	**3374.002**	**8401.66**	**87193.91**
May	2210.492	2360.335	2130.327	6701.154	83934.44
June	3254.221	671.7081	3177.042	7102.971	81384.18
July	3488.94	0	3434.391	6923.331	80587.51
August	2859.902	0	2325.031	5184.933	78580.16
September	2179.567	2004.705	2258.272	6442.544	80469.13
October	3009.547	2714.505	15.79397	5739.846	78035
November	3221.173	3096.679	0	6317.852	77292.02
December	615.301	2975.172	2615.494	6205.967	79706.17
January '24	0	1272.941	101.9308	1374.871	75290.56

Material Limits (FGTURBINES)

Per SC II.1, the permittee shall burn only pipeline-quality natural gas in any unit in FGTURBINES. Per 40 CFR 72.2, for a gaseous fuel to qualify as natural gas, the fuel must either be ≥ 70% methane by volume or must have a gross calorific value (GCV) between 950 and 1100 BTU/SCF. According to a record provided by John Leonard, the permittee burns only pipeline-quality natural gas that contains 91.3871% of Methane and 1075.07 BTU of calorific value.

As stated in SC II.2, the pipeline-quality natural gas shall not have a total sulfur content of over 5.0 grains of sulfur per 100 Standard Cubic Feet (SCF).
According to records provided by John Leonard, DTE burns only pipeline-quality natural gas that contains 91.3871% of Methane and 1075.07 BTU of calorific value.
Per SC II.2, the pipeline quality natural gas shall not have a total sulfur content in excess of 5.0 gr of sulfur per 100 SCF. According to the DTE Tariff page, provided by John Leonard, the natural gas consumed by FGTURBINES does not contain more than 5 grain of total Sulfur per 100 cubic feet.

Process/operational Restrictions (FGTURBINES)

As specified in SC III.1, AQD received a Malfunction Abatement Plan (MAP) on October 22, 2018.
Per SC III.2, The permittee shall not operate any unit in FGTURBINES unless the AQD District Supervisor has approved a plan that describes how emissions will be minimized during startup and shutdown. The plan shall incorporate

procedures recommended by the equipment manufacturer as well as incorporate standard industry practices. Unless notified by the District Supervisor within 30 business days after the plan submittal, the plan shall be deemed approved. AQD received the Start-up, Shutdown, and Malfunction Abatement Plan for DTE Gas Company - Milford Compressor Station on October 22, 2018.

Per SC III.3 (Process /Operational restrictions of FGTURBINES), The permittee shall not have a combined total of more than five total events (startup and shutdown combined) per clock hour for FGTURBINES. I have examined the record and analyzed the total number of events per clock hour for FGTURBINES spanning from 1/1/2023 to 2/1/2024. Upon review, it was observed that the total number of events per clock hour for FGTURBINES remained below the permit limit.

Per SC III.4, the total startup events for FGTURBINES shall not exceed 500 startups per 12-month rolling period as determined at the end of each calendar month.
I received and reviewed the total startup events for FGTURBINES from January 2023 through January 2024. During this period, the highest 12-month rolling total startup event for FGTURBINES was recorded at 87 by the end of February 2023.

Per III.5, The total shutdown events for FGTURBINES shall not exceed 500 shutdowns per 12-month rolling time period as determined at the end of each calendar month.
According to the data provided by John Leonard, FGTURBINES experienced a maximum of 87 total shutdown events in February 2023 within a 12-month rolling time period. This count was determined at the end of each calendar month from January 2023 through January 2024.

Design/Equipment parameters (FGTURBINES)
Per SC IV.1, the maximum nominal rating of each unit in FGTURBINES shall not exceed 10,504 HP (ISO). During my last inspection on February 22, 2023, I checked the nameplate of each turbine and found that the maximum capacity of each turbine engine is 11107 HP. As a result, I sent a violation notice (VN) to the facility according to SC IV.1 (FGTURBINES) of ROP No. MI-ROP-B7221-2020. To resolve the issue, the facility submitted a Permit to install (PTI) application to modify the PTI conditions of SC IV.1 to address the violation. The resolution of the violation is pending until the PTI application is approved.

Per SC IV.2, the permittee shall not operate any unit in FGTURBINES unless its respective dry ultra-low NOx burners and combustion air inlet filters are installed, maintained, and operated in a satisfactory manner. Satisfactory

manner includes operating and maintaining each turbine within FGTURBINES in accordance with an approved MAP for FGTURBINES as required in SC III.1.

Per SC IV.3, the permittee has completed annual inspections on all three turbines from 6/5/2023 to 6/9/2023 and performed maintenance on the turbine air inlet filters according to their maintenance record. The permittee has completed calibration verifications of all package end devices.
Per SC IV.3, The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor and record the natural gas flow rate for each turbine in FGTURBINES continuously. I reviewed the natural gas flow rate for each turbine in FGTURBINES from January 2022 through January 2024. The natural gas flow rate for each turbine in FGTURBIENS is monitored and controlled remotely.

Monitoring/ Recordkeeping (FGTURBINES)
As required in SC VI.2, John Leonard provided me with the monthly and 12-month rolling records of natural gas usage for EUTURBINE1, EUTURBINE2, and EUTURBINE3 from January 2022 through January 2024.

For the SC VI.4 requirements, see the FGTURBINES SC II.2, SC III.3-5, SC IV.1, and SC V.1-3. for more details.

Reporting (FGTURBINES)
As required in SC VII. 1, the permittee submitted an initial notification to the AQD district office after the completion of the installation of the three Turbines. Turbine 1, 2, and 3 installations were completed on August 3, 2018, August 7, 2018, and July 25, 2018, respectively.

Stack/vent restrictions (FGTURBINES)
During the inspection, I saw that the exhaust gases from the stacks were discharged unobstructed vertically upwards to the ambient air. I did not measure the stack diameter or height during the inspection.

Other requirements (FGTURBINES)
According to SC IX.1, FGTURBINES is subject to 40 CFR Part 60 Subparts A & KKKK**.** Per 40 CFR 60.4400 of 40 CFR Part 60 Subpart A and KKKK, stack testing for the Oxides of Nitrogen (NOx) was conducted for the three new natural gas-fired turbines at DTE Gas Company-Milford Compressor Station during December 4-5, 2020.

According to the test report, NOx emissions did not exceed 75 percent of the NOx emission limit. Therefore, the permittee does not need to perform annual performance tests.

Per SC IX.2, FGTURBINES is subject to 40 CFR Part 63 Subparts A and YYYY.
Per 40 CFR 63.9(b), the permittee is required to submit the only initial

notification**.** The permittee submitted an initial notification to the AQD district office after the completion of the installation of the three Turbines specifying the date of installation.

According to 40 CFR Part 63 Subpart YYYY (63.6115), **subsequent performance tests for formaldehyde emissions on the three compressor turbines (EUTURBINE1-3) must be conducted annually. The last compliance emissions testing for formaldehyde was carried out on July 27-28, 2022, and a subsequent test was performed on December 21, 2023.**

The formaldehyde emissions test results conducted on December 21, 2023, are as follows:

Source/ emission unit ID	Unit	Test 1	Test 2	Test 3	Average	Permit Limit
Unit 2200	ppbvd	18.27	17.72	16.81	17.60	NA
	ppbvd @15% 02	19.22	18.60	17.67	18.5	91

FG-COLDCLEANERS

The permittee had EUCOLDCLNR at Milford Compressor station. According to John Leonard EUCOLDCLNR was removed from the facility on November 23, 2020. I did not check the EUCOLDCLNR during my field visit.

FGAUXBOILERS

Under FGAUXBOILERS, the permittee operates four natural gas-fired auxiliary boilers (EUAUXBOIL2A, EUAUXBOIL3A, EUAUXBOIL2B, and EUAUXBOIL3B) to provide heat in buildings in the winter and two natural gas-fired boilers (EUAUXBOIL2C and EUAUXBOIL3C) to heat fuel gas for the station and support equipment.

Pollution control equipment
Ultra-Low NOx burners

Material Limit (FGAUXBOILERS)
Per SC II.1, The permittee shall burn only pipeline-quality natural gas in FGAUXBOILERS. The permittee burns only pipeline-quality natural gas in FGAUXBOILERS and provided natural gas usage records from January 2023 through January 2024.

Emission Limits (FGAUXBOILERS)

To satisfy the emission limit in SC I.1- I.5, the permittee is required to show compliance with SC VI.4 and SC IV.1.
Per SC VI.4, the permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:

a. Monitoring data.
b. Verification of heat input capacity required to show compliance with SC IV.1.
c. All calculations or documents necessary to show compliance with the limits contained in this permit.

Per SC IV.1, I inspected the nameplate of six natural gas-fired auxiliary boilers (EUAUXBOIL2A, EUAUXBOIL3A, EUAUXBOIL2B, and EUAUXBOIL3B) and found the maximum design heat input capacity for the four natural gas-fired auxiliary boilers (EUAUXBOIL2A, EUAUXBOIL3A, EUAUXBOIL2B, and EUAUXBOIL3B) is 3 MMBTU per hour and the maximum heat input capacity for EUAUXBOILER2C, and EUAUXBOILER3C is 1 MMBTU/hr which met the permit requirements. As required in SC IV.3, the permittee records the natural gas flow rate for FGAUXBOILERS continuously. I observed a gas flow meter during my inspection.

Per SC I.6, the GHGs as CO2e emission limit for the FGAUXBOILERS is 7324 tons per 12-month rolling time period as determined at the end of each calendar month. I reviewed the GHGs as CO2e emission records, required in SC VI.3, from January 2022 through January 2024 and, found that the highest GHGs as CO2e emission was 168.22 tons for the 12-month rolling period ending in December 2023.

As required in SCVI.2 and SC VI.3, John Leonard provided me with the monthly gross gas usage rate for FXAUXBOILERS from January 2023 through January 2024 and a record of the total CO2e mass emissions from FGAUXBOILERS.

	AUX Building 2 Boilers (EUBOIL2A, 2B & 2C)		AUX Building 3 Boilers (EUBOIL3A, 3B & 3C)		ALL Boilers	
Month	FUEL (MMCF)	CO_{2e} (tons)	FUEL (MMCF)	CO_{2e} (tons)	Monthly total (tons)	12-month rolling total (tons)
January '22	0.3093	20.52552	0.2228	14.78528	35.31079	171.2451
February	0.2884	19.13857	0.191	12.67499	31.81356	167.2435

March	0.1856	12.31664	0.0971	6.443673	18.76031	166.0225
April	0.1361	9.031759	0.0967	6.417128	15.44889	167.1373
May	0.0727	4.824459	0.0381	2.528362	7.352821	167.4028
June	0.0683	4.53247	0.0329	2.183283	6.715753	168.1858
July	0.0534	3.543688	0.0281	1.86475	5.408438	171.3181
August	0.0553	3.669774	0.0103	0.68352	4.353295	171.0991
September	0.0512	3.397693	0.0264	1.751936	5.149629	172.0547
October	0.034	2.256281	0.035	2.322642	4.578923	174.9746
November	0.1239	8.222153	0.0593	3.935219	12.15737	172.3002
December	0.2235	14.83173	0.0956	6.344131	21.17586	168.2256
January '23	0.2021	13.4116	0.0823	5.461527	18.87313	151.788
February	0.162	10.75051	0.0703	4.665192	15.41571	135.3901
March	0.1459	9.682099	0.07	4.645284	14.32738	130.9572
April	0.0652	4.32675	0.0418	2.773898	7.100648	122.609
May	0.0422	2.800443	0.027	1.791752	4.592195	119.8483
June	0.0362	2.402275	0.0325	2.156739	4.559014	117.6916
July	0.0331	2.196556	0.0349	2.316006	4.512562	116.7957
August	0.0288	1.911203	0.0261	1.732027	3.64323	116.0856
September	0.0511	3.391057	0.0247	1.639122	5.030179	115.9662
October	0.1076	7.140465	0.0245	1.625849	8.766315	120.1536
November	0.2281	15.13699	0.0719	4.77137	19.90836	127.9046
December 2023	0.1827	12.12419	0.0789	5.235899	17.36009	124.0888
January 2024	0.2818	18.70059	0.1218	8.082794	26.78338	131.9991

Reporting (FGAUXBOILERS)
As required in SC VII.1, the permittee submitted a notification to the AQD district within 30 days after the installation of FGAUXBOILERS.

Other Requirements (FGAUXBOILERS)
SC IX.1, the permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63 Subparts A and DDDDD, as they apply to each unit in FGAUXBOILERS. (40 CFR Part 63 Subparts A & DDDDD).

SC IX.1, and 40 CFR 63.7500(e), the permittee must complete a tune-up every 5 years for boilers/process heaters less than or equal to 5 million BTU per hour. FGBOILERS were installed in 2018.

	Date of tune-up	Comments

EUAUXBOIL2A location in Aux building 2 (3 MMBTU/HR)	2/7/2023	Installed new flame sensor and igniter, recharged air filter.
EUAUXBOIL2B location in Aux building 2 (3 MMBTU/HR)	2/7/2023	Installed new flame sensor and igniter, recharged air filter.
EUAUXBOIL2C location in Aux building 2 (1 MMBTU/HR)	11/14/2022	Installed new flame sensor and igniter, recharged air filter.
EUAUXBOIL3A location in Aux building 3 (3 MMBTU/HR)	2/6/2023	Installed new igniter and flame sensor and recharged air filter
EUAUXBOIL3B location in Aux building 3 (1 MMBTU/HR)	2/6/2023	Installed new igniter and flame sensor and recharged air filter.
EUAUXBOIL3C Location in Aux building 3 (1 MMBTU/HR)	11/14/2022	Replaced igniter and flame sensor. Installed new air filter

FGAUXHEATING

Four heaters and a furnace for comfort heating and one water heater. These emission units are not subject to 40 CFR Part 63 Subpart DDDDD because, per 63.7491.(d), a hot water heater is not subject to subpart DDDDD. Per 63.7575, hot water boilers (i.e., not generating steam) combusting gaseous, liquid, or biomass fuel with a heat input capacity of less than 1.6 million Btu per hour.

Emission Units: EUHTR1, EUHTR2, EUHTR3, EUHTR4, EUWTRHTR, EUFURNACE

MATERIAL LIMIT(S)

PER SC II.1, The permittee shall burn only pipeline-quality natural gas in FGAUXHEATING. According to a record provided by John Leonard, the permittee burns only pipeline-quality natural gas that contains 91.3871% of Methane and 1075.07 BTU of calorific value.

Per SC IV.1 (DESIGN/EQUIPMENT PARAMETER(S)), the maximum design heat input capacity for EUHTR1, EUHTR2, EUHTR3, and EUHTR4 shall not exceed 0.1 MMBTU per hour each, on a fuel heat input basis. During the inspection, I observed the nameplate of the heaters and noted that the maximum design heat input capacity for EUHTR1, EUHTR2, EUHTR3, and EUHTR4 is 61,500 BTU/hr (0.0615 MMBTU per hour).

The maximum design heat input capacity for EUWTRHTR shall not exceed 0.125 MMBTU per hour on a fuel heat input basis. I inspected the nameplate of the water heater and observed that the maximum design heat input capacity for EUWTRHTR is 125,000 BTU/HR (0.125 MMBTU per hour)

The maximum design heat input capacity for EUFURNACE shall not exceed 0.2075 MMBTU per hour on a fuel heat input basis.
During my last inspection on January 23, 2023, I reviewed the nameplate of the water heater and noted that the maximum design heat input capacity for EUFURNACE was 350,000 BTU/HR (0.35 MMBTU per hour), which exceeded the permit limit. Consequently, I issued a violation notice to the facility regarding this discrepancy. In response to the violation, the facility has taken steps to rectify the issue by submitting a PTI modification application to adjust the heat capacity for the furnace. The resolution of the violation is pending until the PTI application is approved.

FGNEWNGBOILERMACT

Requirements for new and existing boilers and process heaters with a heat input capacity of <10 MMBTU/hr for major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). These boilers or process heaters are designed to burn solid, liquid, or gaseous fuels.
Emission Units: EUAUXBOIL2A, EUAUXBOIL3A, EUAUXBOIL2B, EUAUXBOIL3B, EUAUXBOIL2C, EUAUXBOIL3C and EUCOMPBLDGBLR

Equal to or less than 5 MMBTU/hr and only burns gaseous or light liquid fuels.	New Units started on January 19, 2018: EUAUXBOIL2A, EUAUXBOIL3A, EUAUXBOIL2B, EUAUXBOIL3B, EUAUXBOIL2C, EUAUXBOIL3C Existing Units: EUCOMPBLDGBLR

Process/Operational Restrictions (FGNEWNGBOILERMACT)

Per SC III.1, the permittee must complete an initial tune-up as specified in SC III.3 by no later than February 19, 2023, for EUAUXBOIL2A, EUAUXBOIL3A, EUAUXBOIL2B, EUAUXBOIL3B, EUAUXBOIL2C, and EUAUXBOIL3C.

SC IX.1, and 40 CFR 63.7500(e), the permittee must complete a tune-up every 5 years for boilers/process heaters less than or equal to 5 million BTU per hour. FGNEWNGBOILERMACT were installed in 2018.

In accordance with SC III.1, SC III.2, SC III.3, and SC VI.3, the permittee conducted a tune-up for each boiler in FGNEWNGBOILERMACT by February 19, 2023. The following information was provided by DTE staff-John Leonard.

		Comments

	Tune up date	
EUAUXBOIL2A location in Aux building 2 (3 MMBTU/HR)	2/7/2023	Installed new flame sensor and igniter, recharged air filter.
EUAUXBOIL2B location in Aux building 2 (3 MMBTU/HR)	2/7/2023	Installed new flame sensor and igniter, recharged air filter.
EUAUXBOIL2C location in Aux building 2 (1 MMBTU/HR)	11/14/2022	Installed new flame sensor and igniter, recharged air filter.
EUAUXBOIL3A location in Aux building 3 (3 MMBTU/HR)	2/6/2023	Installed new igniter and flame sensor and recharged air filter
EUAUXBOIL3B location in Aux building 3 (1 MMBTU/HR)	2/6/2023	Installed new igniter and flame sensor and recharged air filter.
EUAUXBOIL3C Location in Aux building 3 (1 MMBTU/HR)	11/14/2022	Replaced igniter and flame sensor. Installed a new air filter

Reporting (FGNEWNGBOILERMACT)
Per SC VII. 2, semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. the report shall be postmarked or received by the appropriate AQD District Office by March 15 for the reporting period July 1 to December 31 and September 15 for the reporting period January 1 to June 30.

Per SC VII.3, annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.

In accordance with SC VII.2 and SC VII.3, semi-annual and annual reports were received on time.

Per SC VII.4, the permittee must submit the first compliance report for new units and must cover the period beginning on January 19, 2018, and ending on December 31, 2023, for units equal to or less than 5 MMBTU/hr and only burn gaseous or light liquid fuels. The first five-year compliance report must be postmarked or submitted no later than March 15th following the end of the first reporting period. The AQD received the first compliance report for new units on March 10, 2023.

Per SC VI.5, The permittee must submit boiler or process heater tune-up compliance reports to the appropriate AQD District Office and must be postmarked or submitted by March 15th of the year following the applicable five

-year period starting from January 1 of the year following the previous tune-up to December 31 (of the latest tune-up year). Compliance reports must also be submitted to EPA using the Compliance and Emissions Data Reporting Interface (CEDRI) which is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). If the reporting form is not available in CEDRI at the time the compliance report is due, a hard copy of the compliance report shall be submitted to EPA Region 5. The AQD received boiler or process heater tune-up compliance reports for the new units on March 10, 2023.

Per SC VII.6, The permittee must include the following information in the compliance report. (40 CFR 63.7550(c)(1))
a. Company and Facility name and address. (40 CFR 63.7550(c)(5)(i))
b. Process unit information, emissions limitations, and operating parameter limitations. (40 CFR 63.7550(c)(5)(ii))
c. Date of report and beginning and ending dates of the reporting period. (40 CFR 63.7550(c)(5)(iii))
d. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done biennially or on a five-year period and was delayed until the next scheduled or unscheduled unit shutdown. (40 CFR 63.7550(c)(5)(xiv))
e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. (40 CFR 63.7550(c)(5)(xvii))

On March 10, 2023, the AQD received boiler or process heater tune-up compliance reports for the new unit as required in SC VII.6 a through e.

FG-RULE 285 (mm)

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 according to Rules 278 and 285 (mm).

As required in SC VII.4 and SC VII.6, the facility notified Joyce Zhu, District Supervisor via email before venting 12.5 MMSCF gas in April 2020 at 1:00 PM.

On May 27, 2020, at 3:24 AM, the facility vented 12.5 MMSCF. They notified Ms. Joyce Zhu, District Supervisor, via email at 3:51 PM on May 27, 2020, and called PEAS (Pollution Emergency Alert System) at 3:38 PM on May 27, 2020.

On October 27, 2022, the DTE Gas Company – Milford Compressor Station vented 2.75 MMSCF of gas and informed AQD on October 21, 2022

Conclusion

During my inspection on January 23, 2023, I identified the turbines (FGTURBINES) and boiler (EUFURNACE) sizes exceeded the permit limit. The company applied for a permit to increase the size limit of the turbines and boiler to resolve the violations. These violations will be resolved when the permit is approved.

Based on the on-site inspection on February 22, 2024, DTE Gas Company-Milford Compressor Station complies with the requirements of ROP No. MI-ROP-B7221-2020, other than the turbine and boiler size violations identified during the January 23, 2023, inspection.

NAME Shamim Ahammod DATE 05/28/2024 SUPERVISOR K. Kelly