

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

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|   |                                      |                                  |
|---|--------------------------------------|----------------------------------|
| <b>FACILITY:</b> DTE Gas Company - Milford Compressor Station   |                                      | <b>SRN / ID:</b> B7221           |
| <b>LOCATION:</b> 3515 CHILDS LAKE RD., MILFORD  |                                      | <b>DISTRICT:</b> Warren          |
| <b>CITY:</b> MILFORD  |                                      | <b>COUNTY:</b> OAKLAND           |
| <b>CONTACT:</b> John Leonard , Senior Environmental Specialist  |                                      | <b>ACTIVITY DATE:</b> 01/15/2021 |
| <b>STAFF:</b> Shamim Ahammod  | <b>COMPLIANCE STATUS:</b> Compliance | <b>SOURCE CLASS:</b> MAJOR       |
| <b>SUBJECT:</b> Conducted a scheduled virtual inspection of DTE Gas Company-Milford Compressor Station to determine the company's compliance with the requirements of ROP) No. MI-PTI-B7221-2020. |                                      |                                  |
| <b>RESOLVED COMPLAINTS:</b>   |                                      |                                  |

On January 15, 2021, Michigan Department of Environment, Great Lakes and Energy-Air Quality Division (EGLE-AQD) staff, I (Shamim Ahammod) conducted a scheduled off-site 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.

### Virtual Inspection

On January 15, 2021, at 2:00 PM, I pre-arranged a Microsoft Team Meeting for the scheduled virtual inspection with Mr. John Leonard, Environmental Specialist, DTE Gas Company.

At 2:00 PM, DTE Staff Chris Conley, Dan Fulara, Kelly Guertin, Kevin Waksmundzki, and John Leonard; and Imet at a virtual MS team meeting. At the beginning of the meeting, I stated the purpose of the virtual inspection. I discussed the facility's operations and emissions units that are subject to the ROP No. MI-ROP-B7221-2020. Per ROP No. MI-ROP-B7221-2020, the facility operates the three-natural gas-fired Compressor Turbines (FGTURBINES), one natural gas-fired generator, six (6) natural gas-fired boilers (FGBOILERS: EUAUXBOILER2A, EUAUXBOILER3A, EUAUXBOIL2B, EUAUXBOIL3B, EUAUXBOIL2C, EUAUXBOIL3C), four (4) natural gas-fired space heaters, one (1) furnace, and one (1) water heater.

The facility operates four individual DeLaval Model HVA-12 natural gas-fired combustion engines, a Waukesha Model natural gas-fired emergency generator (EUBUWAWUKESHA), a 450,000 BTU/hr natural gas-fired emergency generator (EUOFFICEGENSET), and a 2.1 MMBTU/Hour natural gas-fired boiler (EUCOMPBLDBLR).

EUBUWAWUKESHA is used to provide electricity to the compressor building in the event of a power outage, EUOFFICEGENSET is used to provide electricity to the office building and garage, and EUCOMPBLDBLR is used to heat the compressor and auxiliary buildings.

Under FGTURBINES, the facility has five Compressor Turbines (EUTURBINE1, EUTURBINE2, EUTURBINE3, EUTURBINE4, EUTURBINE5). According to DTE staff, the permittee only operates the following emission units: EUTURBINE1, EUTURBINE2, EUTURBINE3 and the permittee had never installed the following emission units: EUTURBINE4, and EUTURBINE5.

### SOURCE DESCRIPTION

DTE Gas Company-Milford compressor station is a booster station that compresses the natural gas and boosts the line pressure. The units receive the gas from the pipeline transmission system, compress the gas, and then discharge it to the pipeline transmission system at a higher pressure.

When gas pressure increases, the temperature of the gas also increases. There are no gas storage fields at the facility.

## **REGULATORY ANALYSIS & COMPLIANCE EVALUATION**

### **EUWAUKESHA**

An existing Waukesha brand 750 HP (410 KW) rated natural gas-fired emergency generator is used to supply electricity to the compressor building during a power outage. This RICE engine is exempt from 40 CFR part 63 Subpart ZZZZ per 63.6590(b)(3)(ii). According to 63.6590(b)(3)(ii), "Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions does not have to meet the requirement of 40 CFR part 63 Subpart ZZZZ.

### **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.

#### **Material Limits**

I reviewed their fuel usage record it appears that the permittee used natural gas as fuel from January through December 2020.

#### **Process/operational restrictions**

Per SC III.4, the permittee operated the office emergency engine for non-emergency situations for 11.8 hours in 2020 which was below the limit of 100 hours per the calendar year.

#### **Design/equipment parameters**

Per SC IV.1, a non-resettable hour's meter was observed during my last inspection on June 21, 2019, and the total operation time of the office emergency generator (EUOFFICEGENSET) was 298.6 hours as of June 21, 2019. During this inspection on January 15, 2020, the total operation time of the emergency generator was 315.1 hours.

#### **Monitoring/recordkeeping**

Per SC VI.1, the permittee maintained the total hours of operation of the emergency engine yearly and recorded the office emergency engine was operated for non-emergency situations for 11.8 hours and emergencies for zero hours.

### **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 started on June 2018.

#### **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 September 26, 2018. Based on the test report, the results of the emissions testing are given below:

|                              | SC I.2  | SC I.1                     | SC I.6                         |            | SC I.8   |
|------------------------------|---|----------------------------|--------------------------------|------------|--|
| Emission Unit                | Oxides of Nitrogen (ppmvd@15%O <sub>2</sub> ) | Oxides of Nitrogen (lb/hr) | CO (ppmvd@15% O <sub>2</sub> ) | CO (lb/hr) | *NMNE Organic Compounds (ppmvd@15%O <sub>2</sub> ) |
| EUN_EM_GEN                   | 69.3  | 0.86                       | 242                            | 1.91       | ND   |
| Permit Limit                 | 160   | 4.0                        | 540                            | 11.0       | 86   |
| *NMNE-Non-methane Non-ethane |   |                            |                                |            |  |

The results of the test indicated that NO<sub>x</sub> and CO emissions for EUNEMGEN met the permit limits. As specified in SC I.7, GHGs as CO<sub>2</sub>e emissions limit for an emergency generator (EUNEMGEN) for the 12-month rolling period is 247 TPY. Based on the record provided by Mr. Neruda, GHGs as CO<sub>2</sub>e emission from the emergency generator was below 2.5 Tons for the 12-month rolling period of January through December 2020.

### 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  $\geq 70\%$  methane by volume or must have a gross calorific value (GCV) between 950 and 1100 BTU/SCF. As required in SC II.1, Mr. Kotwicki provided a copy of 'Gas engine site-specific technical data' via email which shows that the percentage of methane is 84.7 by volume. So, the permittee satisfies the conditions that require an engine's fuel type is natural gas.

### Process/Operational restrictions

As required in SC III.1, the permittee shall not operate EUNEMGEN for more than 205 hours per year on a 12-month rolling period. Mr. Neruda provided me a record that indicates that the operation time of the emergency generator was less than 30 hours for the 12-month rolling period from January through December 2020. Per SC III.5 and 40 CFR Part 60 Subpart JJJJ, the permittee follows the manufacturer (CAT) recommendations for the maintenance plan for EUNEMGEN.

Per SC III.2, the permittee may operate EUNEMGEN for no more than 100 hours per calendar year for necessary maintenance checks and readiness testing. Based on records, from January through December 2020, the operational hours for non-emergency use of emergency generators was 26.3 hours in 2020 that was below the limit of 100 hours per calendar year.

### Design/Equipment Parameters

Per EUNEMGEN, SC IV.1, during my last inspection on April 16, 2019 I observed EUNEMGEN was equipped with a non-resettable hour's meter. I recorded the operational hours of the emergency generator as 68 hours. At this virtual inspection on January 15, 2021, I observed the non-resettable hour's meter reading was 116.7 hours.

As required in SC IV.2, during my last inspection on April 16, 2019, I verified the generator nameplate and rated power which was 1300 KW. As required in SC IV.3, the permittee provided the record of fuel usage for EUNEMGEN from January through December 2020.

### 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 (NO<sub>x</sub>), 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.

Next performance test on the emergency generator for the Oxides of Nitrogen (NO<sub>x</sub>), Carbon Monoxide (CO), and Volatile Organic Carbon (VOC) needs to be conducted by September 2021.

### **Monitoring/recordkeeping**

Per SC VI.2.b, the engine is not certified. The permittee conducted an emission test on the emergency generator on September 26, 2018.

SC VI.6, Mr. Neruda provided me a copy of the natural gas usage from January through December 2020 for the EUNEMGEN monthly.

Per SC VI.8, the permittee provided the record of monthly and 12-month rolling total CO<sub>2</sub> e mass emissions for EUNEMGEN from January through December 2020.

### **Reporting**

As required in SC VII.1, within 30 days, the permittee notified AQD District Office 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 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.

Per 40 CFR 63.9(2), the notification should be submitted no later than 120 days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard). At this time, a notice of violation will not be sent to the facility for not complying with EUNEMGEN SC VII.4.

### **Other requirements**

Per SC IX.1, 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 (NO<sub>x</sub>), Carbon Monoxide (CO), and Volatile Organic Carbon (VOC) on September 26, 2018.

SC IX.1, and 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 EUN\_EM\_GEN including the information in 40 CFR 63.9(b)(i)-(v).

## FGDELAVALS Flexible Group Conditions

The facility operates four 4000 HP DeLaval Model natural gas-fired combustion engines i.e., EU006 (Engine#501), EU007 (Engine#502), EU008(Engine#503), and EU009 (Engine#504). The main purpose of the engines is to compress the gas and boost the pipeline pressure.

These engines are exempt from 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."

### Emission Limits

Per SC I.1, from January through December 2020, per 12-month rolling period, the none-methane hydrocarbon emission from FGDELAVALS engines was less than 1 ton which was below the non-methane Hydrocarbons limit of 49 ton.

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:

|                    | Load (%) | Carbon Monoxide<br>(gram/BHP-hr) | Oxides of Nitrogen<br>(NOx) (gram/BHP-hr) | NMOC (lb/hr) |
|--------------------|----------|----------------------------------|---|--------------|
| EU006 (Engine#501) | 99.6     | 1.50                             | 9.77                                      | ND           |
| EU007 (Engine#502) | 94       | 1.10                             | 5.50                                      | ND           |
| EU008(Engine#503)  | 94.5     | 1.10                             | 1.30                                      | ND           |
| EU009 (Engine#504) | 95       | 0.85                             | 4.50                                      | ND           |
| Permit limit       | >90.0    | 1.75 gram/B-HP)                  | 11.5 gram/B-HP                            | 11.19        |

### 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  $\geq 70\%$  methane by volume or must have a gross calorific value (GCV) between 950 and 1100 BTU/SCF. As required in SC II.1, Mr. Neruda provided a copy of 'Gas engine site-specific technical data' via email which shows that the percentage of methane is 84.7 by volume.

### 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 renew the cycle. The last ROP permit (ROP No. MI-ROP-B7221-201b) 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.

### Monitoring/recordkeeping

Per SC VI.1 and SC VI.II (monitoring and record-keeping), I received the record of the fuel consumptions and the operating hours for each engine monthly from January through December 2020 from Mr. Leonard via email. As specified in SC VI.3, I checked the records of dates/schedules and type/nature of repairs and maintenance conducted on the engines for the last five years.

### Stack/Vent restrictions

In my last inspection on 4/16/2019, I verified that the exhaust gases from the stacks were discharged unobstructed vertically upwards to the ambient air.

### Other requirements

As required in SC IX.1, the permittee uses four 4000 HP DeLaval natural gas-fired combustion engines in FGDELAVALS.

### 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, i.e., 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 had never installed the following emission units: EUTURBINE4, and EUTURBINE5.

### Emission Limits

|               | NOx emission test conducted on Nov. 4-5, 2020, Per SC I.1 | PM10/2.5 emission test conducted on April 10-16, 2019, Per SC I.3 and SC I.4 | CO test conducted on December 4-28, 2018, SC I.5 | GHGs as CO <sub>2</sub> e, SC I.6                                    |
|---------------|---|--|--|--|
| Emission Unit | NOx (ppmvd@15% O <sub>2</sub> )                           | PM10/2.5 (lb/MMBTU)  | CO (ppmvd@15%O <sub>2</sub> )                    | 12-month rolling total determined at the end of December 2020 (tons) |
| EUTURBINE1    | 7.7   | 0.003  | 1.7  |  |
| EUTURBINE2    | 5.5   | 0.003  | 2.1  |  |
| EUTURBINE3    | 5.4   |  | 1.6  |  |
| FGTURBINES    |   |  |  | 60088  |
| Permit Limit  | 15  | 0.015  | 25   | 196998   |

### Material Limits

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  $\geq 70\%$  methane by volume or must have a gross calorific value (GCV) between 950 and 1100 BTU/SCF. I reviewed a record that indicates that natural gas consumes by FGTURBINES has a Total Heating Value per Cubic Foot of not less than 950 BTU nor more than 1100 BTU.

As stated in SC II.2, the pipeline-quality natural gas shall not have a total sulfur content over 5.0 grain of sulfur per 100 Standard Cubic Foot (SCF). I reviewed a record which indicates that natural gas consumes by FGTURBINES does not contain more than 5 grain of total Sulfur per 100 cubic feet.

### Process/operational Restrictions

As specified in SC III.1, AQD received a Malfunction Abatement Plan (MAP) on October 22, 2018. 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 December 2018 through December 2020. In December 2020,

the total startup events for FGTURBINES was 100 startups per 12-month rolling period as determined at the end of each calendar month.

### Design/Equipment parameters

Per SC IV.3, the permittee has completed inspections on all three turbines on 12/7/2020-12/11/2020 and addressed HPC fail to unload on all units. The permittee has completed calibration verifications of all package end device. I reviewed the natural gas flow rate for each turbine in FGTURBINES from January through December 2020.

### Testing/Sampling

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<sub>x</sub> 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 (NO<sub>x</sub>), Carbon Monoxide (CO), and Particulate Matter (PM10 and PM2.5) was conducted for the three new natural gas-fired turbines at DTE Energy -Milford Compressor Station during December 4-28, 2018, under PTI No. 185-15A and 40 CFR 60.4400 of 40 CFR Part 60 Subparts A and KKKK. Based on the test report, the results of the NO<sub>x</sub> 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, according to the test report (December 4-28, 2018), NO<sub>x</sub> emissions did not exceed 75 percent of the NO<sub>x</sub> emission limit. Therefore, the permittee does not need to perform annual performance tests but need to conduct them in two years. Per SC V.2, stack testing for the Oxides of Nitrogen (NO<sub>x</sub>) was conducted for the three new natural gas-fired turbines at DTE Energy-Milford Compressor Station during November 4-5, 2020, per PTI No. 185-15B and 40 CFR 60.4400 of 40 CFR Part 60 Subparts A and KKKK. The results of the emissions testing are given below:

|               | NOx emission test conducted on November 4-5, 2020 |
|---------------|---|
| Emission Unit | NOx (ppmvd@15% O2)                                |
| EUTURBINE1    | 7.7   |
| EUTURBINE2    | 5.5   |
| EUTURBINE3    | 5.4   |
| Permit Limit  | 15  |

Per SC V.3, Within 180 days after 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.

Per SC V.3, stack testing for the Carbon Monoxide (CO) and Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>) was conducted for the three new natural gas-fired turbines at DTE Energy-Milford Compressor Station during December 4-28, 2018, per PTI 185-15A and 40 CFR 60.4400 of 40 CFR Part 60 Subparts A and KKKK. Based on the test report, the results of the emissions testing are given below:

| CO, PM <sub>10</sub> , and PM <sub>2.5</sub> test conducted on December 4-28, 2018 |                                  |                                |                                 |
|--|----------------------------------|--------------------------------|---------------------------------|
| Emission Unit  | CO<br>(ppmvd@15%O <sub>2</sub> ) | PM <sub>10</sub><br>(lb/MMBtu) | PM <sub>2.5</sub><br>(lb/MMBtu) |
| EUTURBINE1   | 1.7                              | 0.085                          | 0.085                           |
| EUTURBINE2   | 2.1                              | 0.188                          | 0.188                           |
| EUTURBIN3  | 1.6                              | 0.010                          | 0.010                           |
| Permit Limit   | 25                               | 0.015                          | 0.015                           |

The results of the test indicated that PM<sub>10</sub> and PM<sub>2.5</sub> emissions from EUTURBINE1 and EUTURBINE2 failed to meet the permitted limits. On April 10-16, 2019, the permittee reconducted the PM<sub>10</sub> and PM<sub>2.5</sub> emissions tests on EUTURBINE1 and EUTURBINE2. They did not reconduct the PM<sub>10</sub> and PM<sub>2.5</sub> emissions tests on EUTURBINE 3 because they met the emission limit at the first emission test. AQD received the emission test reports of PM<sub>10</sub> and PM<sub>2.5</sub> emissions for EUTURBINE1 and EUTURBINE2 on May 02, 2019. Based on the test report, the results of the emissions testing are given below:

| PM <sub>10</sub> and PM <sub>2.5</sub> test conducted on April 10-16, 2019 |   |
|--|---|
| Emission Unit  | PM <sub>10</sub> / PM <sub>2.5</sub> (lb/MMBtu) |
| EUTURBINE1   | 0.003   |
| EUTURBINE2   | 0.003   |
| Permit Limit   | 0.015   |

### Monitoring/ Recordkeeping

As required in SC VI.2, Mr. Leonard provided me the monthly and 12 months rolling record of the natural gas usage for EUTURBINE1, EUTURBINE2, and EUTURBINE3 for January through December 2020.

As stated in SC VI.3, Mr. Leonard provided me the records of monthly total and 12 months rolling total CO<sub>2e</sub> mass emissions for EUTURBINE1, EUTURBINE2, and EUTURBINE3 for January through December 2020, which is also required by SC I.6.

For the SC VI.4 requirements, see the FGTURBINES SC III.4 for more details.

### Reporting

As required in SC VIII. 1, the permittee submitted an initial notification to the AQD district office after 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

I did not observe stacks of turbines during this inspection.

**Other requirements**

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 Energy-Milford Compressor Station during December 4-5, 2020. According to the test report, NOx emission did not exceed 75 percent of the NOx emission limit. Therefore, the permittee does not need to perform annual performance tests.

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 completion of the installation of the three Turbines specifying the date of installation.

**FG-COLDCLEANERS**

The permittee had EUCOLDCLNR at Milford Compressor station. According to Mr. Leonard, EUCOLDCLNR had been removed from the facility in November 2020.

**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.

**Emission Limits/Design/Equipment Parameters**

As specified in SC I.2, the permittee is required to show compliance with SC VI.4.c and IV.1. Per SC IV.1 and SC VI.4.c, on my last inspection on April 16, 2029, DTE staff, Mr. Joe Kotwicki, provided me "Technical data Sheet-Benchmark 750-600 boilers" via email. After reviewing this document, it appears the maximum heat input capacity for EUAUXBOILER2A, EUAUXBOILER3A, EUAUXBOILER2B, EUAUXBOILER3B is 3 MMBTU/hour, and the maximum heat input capacity for EUAUXBOILER2C, EUAUXBOILER3C is 1 MMBTU/hr that meets the permit requirements. As required in SC IV.3, the permittee records the natural gas flowrate for FGAUXBOILERS continuously.

**Monitoring/recordkeeping**

As required in SCVI.2, Mr. Leonard provided me a copy of the natural gas usage rate for FXAUXBOILERS from January through December 2020 monthly. According to the SC VI.3, I received a record of the total CO2e mass emissions from FGAUXBOILERS monthly.

**Reporting**

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

**Other Requirements**

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. They did not complete the tune-up for boilers yet. They need to complete the tune-up for boilers by 2022.

**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<br>Existing Units: EUCOMPBLDGBLR |
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**Process/Operational Restrictions**

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.

**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 emitted 12.5 MMSCF gas in April 2020 at 1:00 PM and notified Ms. Joyce Zhu, District Supervisor via email before that event.

On May 27, 2020, at 3:24 AM, the facility vented 12.5 MMSCF. They notified Ms. Joyce Zhu, District Supervisor, and 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.

**Conclusion**

Based on the off-site inspection, review of records, and discussion with facility staff, DTE Gas Energy-Milford Compressor Station complies with the requirements of ROP No. MI-ROP-B7221-2020.

NAME 

DATE February 12, 2021 SUPERVISOR 