

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

N593555406

FACILITY: DTE Gas Company - Alpena Compressor Station		SRN / ID: N5935
LOCATION: 8512 E. ARNOLD LAKE ROAD, HARRISON		DISTRICT: Bay City
CITY: HARRISON		COUNTY: CLARE
CONTACT: Lance Kleino , Associate Environmental Engineer		ACTIVITY DATE: 09/17/2020
STAFF: Nathanael Gentle	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Inspection of MI-ROP-N5935-2019. Facility was in compliance.		
RESOLVED COMPLAINTS:		

An inspection at DTE Gas Company Alpena Compressor Station, N5935, was completed on 9/17/2020 by Nathanael Gentle, EGLE/AQD, and Chris Hare, EGLE AQD. Prior to arriving onsite, a records request was submitted. Lance Kleino, Associate Environmental Engineer, provided the requested records. We arrived onsite shortly before 1:30 PM. Onsite we met with Darin Cummings, Supervisor, Compressor Operations, and Lance Kleino and toured the facility. The facility was not operating on the day of the inspection and has not operated for many years. The facility said no equipment changes were made since the last inspection was completed.

Source Description:

The DTE Gas Company Alpena Compressor Station, N5935, is a natural gas compression and transmission station containing one natural gas fired reciprocating internal combustion engine, and its associated compressor, and a natural gas-fired emergency generator. Historically, the facility was used to raise the pressure of gas in the pipeline and provide the force required to move gas through the pipeline. The name "Alpena" refers to the location of the largest destination for the natural gas in the pipeline back when the compressor station was operating. When the Antrim gas fields came into production, the facility was no longer needed to push gas down the pipeline. The facility remains as an unmanned station on standby in the event it is needed to provide compression to the natural gas pipeline.

The DTE Gas Company Alpena Compressor Station consists of:

- EUWHITESUPERIOR, a 2000 hp, spark ignition, 4 stroke, lean burn, non-emergency, natural gas-fired reciprocating internal combustion engine (RICE). The engine is subject to 40 CFR Part 63 Subpart ZZZZ: National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The engine and its associated compressor were installed in 1975 and reported not to be subject to NSR requirements.
- EUEMERGEN, a Kohler, emergency stationary, natural gas-fired, rich burn RICE rated at 259 HP (150 KW). The generator was installed in the fall of 2015 and is subject to 40 CFR Part 60, Subpart JJJJ: Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.

In addition, the facility contains the following units listed as exempt.

- EUWATERHEATER, a sweet natural gas fired water heater with a rated capacity of 37,000 BTU/hr. PTI exemption rule citation: R 336.1282(b)(i)
- EUBOILER, an AJAX model WG1250 sweet natural gas fired boiler with a rated capacity of 1.25 million BTU/hr. PTI exemption rule citation: 336.1282(b)(i)
- EUHYDROCARBONTANK, a 1,000 gallon sweet crude oil hydrocarbon tank. PTI exemption rule citation: 336.1284(e).

During our inspection, time was not taken to look at all exempt units. EUBOILER was verified to have a rated capacity of 1.25 million BTU/hr.

EUWHITESUPERIOR: Compliant

Facility staff reported that EUWHITESUPERIOR had not been ran since the last inspection other than for maintenance and quality control purposes, reported to be approximately 5 hours over the last year. Staff said the pistons were rebuilt and bearings replaced in 2015. Due to the minimal hours of operation, no malfunctions have occurred, and no maintenance has been necessary since the last inspection was completed on 7/10/2018. The catalyst, installed in 2015, has not been changed due to the engine not being operated. A spare catalyst is kept onsite. The unit fires only sweet natural gas. Verification was provided by facility staff. An automatic shutdown system is in place. The system is set to trigger an

alarm if the catalyst reaches a temperature of 1125.00 degrees F and the system will shut down if the catalyst temperature reaches 1150.00 degrees F. Testing to verify catalyst system efficiency is scheduled for October 8, 2020. Special condition VI. 2. of the ROP indicates the catalyst inlet temperature must be recorded and monitored at all times EUWHITESUPERIOR is operated. Based on previous inspection reports, it appears temperature input does not need to be monitored at all times because an automatic shutdown system is in place. However, this is not made clear by the ROP requirements and is something that should be addressed during the facilities next ROP renewal. Previous inspections report a continuous parameter monitoring system (CPMS) is in place. When asked onsite, facility personnel were initially unsure as to whether a CPMS was in place. A monitoring system is in place to continually monitor inlet and outlet temperatures to the catalyst. At the time of inspection, these reading were slightly above ambient temperatures with an inlet temperature of 72 degrees F and an outlet temperature reading of 87 degrees F. Facility staff said the temperatures were above ambient due to the sun shining on the sensors. A site-specific monitoring plan is in place and was provided by the facility upon request. A copy of the thermocouple calibration report completed 10-22-2019 was provided and in compliance with SC III. 5. and SC VI. 6. of the ROP.

EUEMERGEN: Compliant

Facility staff report the emergency generator is ran once a week for 20 minutes for testing purposes. A non-resettable hour meter installed on the generator read 152.0 hours. The hour meter read 98.2 hours during the inspection completed on 7/10/2018. Per subpart JJJJ the unit may run up to 100 hours per year for maintenance checks and readiness testing up to 50 hours per year in nonemergency situations. Based on the limited number of operating hours, the unit appears to meet the emergency operations status requirements. Personnel said an oil change was completed on the generator at 122 hours. The unit fires only sweet natural gas. Verification was provided by facility staff. The generator's tag was checked during the inspection and the generator was verified to be a Kohler 150KW as listed in the permit. Records of maintenance and hours of operation for the year 2019, as well as a copy of the maintenance plan were provided by the facility and in compliance.

Summary:

At the time of our 9/17/2020 scheduled compliance inspection, the DTE Gas Company - Alpena Compressor Station appeared to be in compliance with the requirements of ROP No. MI-ROP-N5935-2019.



NAME _____

DATE 9/29/2020SUPERVISOR Chris Ware