

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

N616063166

FACILITY: Layline Oil & Gas LLC - Marion Gas Plant		SRN / ID: N6160
LOCATION: 18811 5TH AVE, MARION		DISTRICT: Cadillac
CITY: MARION		COUNTY: OSCEOLA
CONTACT: Coral Johnson , Administrative Assistant		ACTIVITY DATE: 06/01/2022
STAFF: Caryn Owens	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: On-Site Inspection & Records Review		
RESOLVED COMPLAINTS:		

On Wednesday, June 1, 2022, Caryn Owens of the Department of Environment, Great Lakes, and Energy (EGLE) – Air Quality Division (AQD) conducted an On-site field inspection of Layline Oil & Gas LLC - Marion Gas Plant (SRN: N6160) located on the west side of North 5th Avenue, approximately 0.2 miles south of 19 Mile Road and North 5th Avenue in Marion, Michigan. It is recommended to have a H2S monitor during the inspection. Even though the site is not a sour gas facility, there are three iron sponges located in the central portion of the site.

The field inspection and records review were to determine compliance with the permit to install (PTI) 719-96. The facility is considered an opt-out source from major source applicability by limiting the operational and/or production limits potential to emit (PTE) to be below the major source thresholds.

The site is an area source for National Emission Standards for Hazardous Air Pollutants (NESHAP) from Oil and Natural Gas Production facilities (40 CFR, Part 63, Subpart HH), and NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR, Part 63, Subpart ZZZZ). Compliance with the federal requirements in accordance with the site was not reviewed by the AQD at the time of this report. It should be noted that the site is not Subject to the New Source Performance Standards (NSPS) for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants for which construction, reconstruction, or modification commenced after January 20, 1984, and/on/or before August 23, 2011 in 40 CFR Part 60 Subpart KKK, since the associated equipment was reportedly installed prior to 1984 at the site.

Summary:

The activities covered during this full compliance evaluation (FCE) appear to be in compliance with PTI 719-96. Review of the records for the facility indicates the facility was in compliance with emission limits in accordance with the PTI. No further actions are necessary at this time. Specific permit conditions that were reviewed are discussed below.

On-site Inspection:

During the field inspection it was partly cloudy and winds approximately 5 to 10 miles per hour out of the northwest, and approximately 71 degrees Fahrenheit. The facility consisted of:

- A tank battery on the northeastern portion of the site with 2 pressurized NGL tanks with associated truck loading station, and an approximate 300 barrel (bbl) above ground storage tank.
- A tank battery on the northern portion of the site with 1 approximate 400 barrel above ground storage tank and associated loading station.
- Three iron sponges just north of the compressor building.
- One heater, just west of the production equipment.
- There was one glycol dehydrator to remove water from the natural gas stream, which was operating at the time of the inspection. The glycol dehydrator did not have a control device and condensation was being collected in an open stock tank beneath a shed type roof.
- The compressor building contained one compressor engine in the eastern portion of the building. The compressor engine was connected to a condenser outside on the southeastern portion of the compressor building.
- Equipment to extract natural gas liquids (NGLs) appeared to be operating, and I saw the pipes just south of the compressor building covered with frost.
- A flare that was burning at the time of the inspection on the southern portion of the site. There were intermittent visible emissions from the flare, but when the sun was at my back and observing the visible emissions from the flare, they were not greater than 10 percent opacity.
- The western portion of the site consisted of warehouse storage equipment like piping, tanks, and containers as backup for other facilities that belong to Layline Oil & Gas LLC.

There also appeared to two condensers and associated equipment and piping that were stored near the compressor building. One of the condensers appeared to have been previously hooked up to a compressor engine that is no longer on site.

At the time of the facility inspection, the eastern portion of the engine was stamped on the engine block that it was a Caterpillar engine, with the number 8N4305. Based on the records received, the engine was Caterpillar G342, 225 horsepower, rich burn uncontrolled engine. At the time of the inspection, the engine was operating at 778 revolutions per minute (RPMs), 40 pounds per square inch (psi) and 200 degrees Fahrenheit. The engine was uncontrolled, with a muffler on the stack inside the building. The Stack extrudes from the northern portion of the compressor building and was at least 18 feet above ground surface.

The housekeeping at the facility was not as well kept, compared to similar facilities. There was oil on the concrete floor under the engine, and oil-like substance on the ground southeast of the compressor building.

PTI 719-96 Compliance Evaluation:

- **Emission Limits:**

The Emission Limits are 89 tons per year based on a 12-month rolling time-period for Nitrogen Oxides (NOx), Carbon Monoxide (CO), and Volatile Organic Compounds (VOCs). Based on records from May 1, 2021 through April 30, 2022, the highest emissions reported were 38.5 tons of NOx per 12-month rolling time period, 40.9 tons of CO per 12-month rolling time period, and 5.4 tons of VOCs per 12-month rolling time period. The emissions were reported within the permitted limits.

Additionally, the Emission Limits for hazardous air pollutants (HAPs) are less than 9 tons per year based on a 12-month rolling time period for an individual HAP, and less than 22.5 tons per year based on a 12-month rolling time period for aggregate HAPs. Based on the records reviewed, the highest HAP pollutant would be formaldehyde, and the highest reported emissions for formaldehyde were 4.9 tons per year based on a 12-month rolling time period. The HAP emissions were below the permitted limits.

- **Material Limits:**

AQD has previously requested hydrogen sulfide (H₂S) records from the company to show that only sweet gas is processed at the facility. Based on the previous records reviewed, the inlet gas analysis indicated H₂S in the gas stream was at 0.2 ppm and is below the sulfur concentration in AQD's definition of sour gas, and therefore considered sweet gas.

- **Process/Operational Restrictions:**

The maintenance records indicate general maintenance such as: replacing filters, valves, spark plugs, was performed on the engine. The most recent oil change was completed November 23, 2021. The records did not show maintenance concerns with the engine. The records are attached.

- **Design/Equipment Parameters:**

The engine does not appear to be using a control device. The two NGL tanks are under pressure and use appropriate control for the tanks.

- **Testing/Sampling:**

The facility uses engine specific emission factors to calculate the emissions for NOx, CO, VOC, and HAP emissions. Performance testing has not been completed at this facility.

- **Monitoring/Recordkeeping:**

The facility records monthly and 12-month rolling time period calculations for NOx, CO, VOCs and HAPs. The 12-month rolling time period emissions are discussed above, under Emission Limits. The facility also monitors and records the natural gas usage on a monthly and 12-month rolling time period basis. The facility maintains a log of all significant activities at the facility. The monthly and 12-month rolling time period records are attached.

- **Reporting:**

The 2021 Emissions Inventory MAERS report was reviewed and was complete, it also indicated compliance with the emission limits.

- **Stack/Vent Restrictions:**

There are no stack/vent restrictions in the permit to install.

- **Other Requirements:**

Although the PTI does not address "Other Requirements" for EUENGINE, the facility is subject to the NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR, Part 63, Subpart ZZZZ) and NESHAP from Oil and Natural Gas Production Facilities (40 CFR Part 63 Subpart HH). Compliance with the federal requirements in accordance with the facility were not reviewed by the AQD at this time.

NAME *Camp Owens*

DATE _____

SUPERVISOR _____