

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

N290127061

FACILITY: Consumers Energy - Muskegon River Compressor Stat		SRN / ID: N2901
LOCATION: 8613 Pine Rd., CHURCH BRIDGE		DISTRICT: Saginaw Bay
CITY: CHURCH BRIDGE		COUNTY: CLARE
CONTACT: Parish Geers , Compressor Station Field Leader		ACTIVITY DATE: 09/16/2014
STAFF: Benjamin Witkopp	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Facility inspection		
RESOLVED COMPLAINTS:		

On September 16, 2013, Ben Witkopp of the Michigan Department of Environmental Quality - Air Quality Division (MDEQ-AQD) inspected the Consumers Energy Muskegon River Compressor Station (SRN N2901) 8613 Pine Road, near Marion. It is northwest of Harrison, directly north of Temple, and east of Marion. Renewable Operating Permit (ROP) MI-ROP-N2901-2009 currently covers the facility. The renewal of that permit is currently out for public comment.

Mr. Parish Geers was the facility contact. The facility includes the compressor buildings, maintenance shop, and a glycol dehydration system including a thermal oxidizer. A remediation system was formerly in place on the southeast side of the but it was no longer needed and was removed.

Operations at the facility are essentially continuous during the year but the activity occurring varies in tune with the changing seasons. During the late spring, summer, and early fall months natural gas is drawn from the pipeline and put into underground geological formations in three different well fields. The gas storage is monitored and then during the late fall through winter the process is reversed. Natural gas is withdrawn from storage, the glycol dehydration process removes water, and then the gas is routed into the pipeline distribution system.

Record review was conducted in Parish's office. The glycol dehydrator system is required to have the thermal oxidizer operate at a minimum temperature of 1400 +/- 50 degrees Fahrenheit. Records indicated it was at 1500 essentially all times. The dehydrator system has a benzene limit of 0.8 tpy. The highest rolling 12 month period total was 0.0379 tons back on January 2012. Wet stream gas analysis was being performed and the results were used in computing the emissions. The analysis is required to include nitrogen, carbon dioxide, C1 through C6 series, benzene, toluene, xylene, ethylbenzene (BTEX) and hexane. The dehydrator system is exempt from 40 CFR 63 Subpart HHH because of installation of a thermal oxidizer, and benzene emissions restricted to less than one ton per year.

The natural gas-fired compressors are required to have records of natural gas consumption rates and the highest month had 0.507 MMCF. Due to equipment age, the compressors are not subject to the Maximum Achievable Control Technology Standards for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR, Part 63, Subparts A and ZZZZ. If new engines are installed, or the existing ones are reconstructed, then they may be subject to the standards.

The three emergency generators are subject to subpart ZZZZ. Records show the units are run for two to three minutes each week for test purposes. From April through September the units were run a total of about 8 hours each. Rather than changing oil the company takes oil samples to check for degradation as allowed by the regulations. The analysis is provided by Mobil Signum. The results provided information on the integrity of the oil lubrication characteristics.

The natural gas fired turbine is not subject to the Maximum Achievable Control Technology Standards for Stationary Combustion Turbines promulgated in 40 CFR, Part 63, Subparts A and YYYY. Future installations or reconstructions of the existing unit may be subject to the standards.

The facility has one cold cleaner/degreaser located in the maintenance shop. The small unit is a Dyna-Brute Industrial Parts Cleaner System. The unit is complete with a parts drainer, filters, and cover and Parish said it is rarely used. The MSDS for ZEP DYNA 143, which is the solvent used in the cleaner indicated it was 100% light

aliphatic hydrocarbons. It did not list any halogenated ingredients. The vapor pressure was listed as 0.0077 psi at 20 degrees C.

We then toured the facility. The cold cleaner lid was closed and operating instructions were posted.

Only minimal activity was occurring in the main compressor building. Parish pointed out they had installed new electronic instrumentation to optimize efficiency of running the compressors. The same type of instrumentation was being installed north of the main facility, across Pine Rd., in building 3.

The glycol dehydration system was not in operation and was basically inoperable at the time due to maintenance activity.

Based on the records examined and observations made at the time of the inspection the facility is considered to be in compliance.

NAME B. Rathapp

DATE 9-23-14

SUPERVISOR C. Place