

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

B648022178

FACILITY: COLUMBUS COMPRESSOR STATION		SRN / ID: B6480
LOCATION: 1647 CAUGHILL RD., RICHMOND		DISTRICT: Southeast Michigan
CITY: RICHMOND		COUNTY: SAINT CLAIR
CONTACT: Tyler Gage , Associate Engineer - Environmental		ACTIVITY DATE: 07/24/2013
STAFF: Robert Elmouchi	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled inspection.		
RESOLVED COMPLAINTS:		

On Wednesday, July 24, 2013, I conducted a scheduled inspection of Michigan Consolidated Gas Company, Columbus Compressor Station, located at 1647 Caughill Road, Richmond, Michigan. The purpose of this inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the administrative rules; and the conditions of Renewable Operating Permit (ROP) No. MI-ROP-B6480-2012.

Mr. Tyler Gage, Senior Environmental Engineer; Ms. Phillis Rynne, Staff Engineer, Environmental Management & Resources; and Ms. Kailyn Grezick, Student Intern; escorted me during the inspection of this facility and were present during records review. Ms. Ann Hunt, Specialist – Air Group; was present only during records review and Mr. Lawrence Maiorana, Manager, Transmission & Storage Operations; was present during a portion of the records review.

This facility is a natural gas transmission storage facility, which uses two RICE to compress natural gas for storage or transmission and one glycol dehydration unit to remove moisture from natural gas when it is withdrawn from the storage field near the lower range of storage field pressure. This facility is uniquely identified by State Registration Number (SRN) B6480.

ROP No. MI-ROP-B6480-2012

EUDEHYDRATOR is a glycol dehydration unit with an enclosed flare. This emission unit originally used a condenser to control emissions when it was first installed. On August 3, 2004, the AQD approved PTI 161-04, which permits the same emission unit but with the emission control device changed to an enclosed flare. PTI 161-04 is now incorporated in ROP No. MI-ROP-B6480-2012, which became effective on August 28, 2007. Mr. Gage provided me a copy of a wet gas stream analysis, amount of natural gas processed through the emission unit per month, hours of operation and VOC 12-month rolling emissions. Emission records (see attached) indicate maximum 12-month rolling controlled emissions are in compliance with permitted limits.

I conducted a visual inspection of this emission unit. This emission unit only needs to be operated when withdrawing (not injecting) natural gas from the storage field and only when the moisture content of the natural gas exceeds pipeline quality standards. Typically, the moisture content of the withdrawn natural gas will increase as the underground storage field pressure drops. No gas was being withdrawn from the storage field at the time of the inspection; therefore this emission unit was not operating.

The flash tank appeared to be properly installed and maintained. The enclosed flare appeared to be properly installed and maintained. The exhaust stack appeared vertical and

unobstructed. Stack diameter appeared 48 inches or less in diameter and appeared to be at least 30 feet above ground.

FGDELAVALS

Both DeLaval No 1 and DeLaval No. 2 were operating during this inspection. The installation of the catalysts as required per 40 CFR Part 63 Subpart ZZZZ were installed and operational. Mr. Gage activated the display panels for each engine and I recorded the following data:

DeLaval No 1:

RPM: 502

BHP: 1836

Torque: 95.0%

MMCFH: 5.3

Catalyst Inlet Temperature: 910°F

Catalyst Pressure Drop in Inches of Water Column, H₂O: 17.6

(Note: The high pressure drop across the catalyst was claimed to be caused by water condensing in pressure gage line. Mr. Gage and Mr. Maiorana discussed plans to install a trap that will capture the condensed water and therefore prevent an erroneous measurement.

DeLaval No 2:

RPM: 499

BHP: 1828

Torque: 95.0%

MMCFH: 5.4

Catalyst Inlet Temperature: 904°F

Catalyst Pressure Drop in Inches of Water Column, H₂O: 0.2

A visual inspection of exhaust stacks appear to indicate they are vertical and unobstructed and therefore appear to be in compliance with this permit section.

Mr. Gage confirmed the reciprocating engines are fired only with pipeline natural gas and therefore the source appears to be in compliance with the material use condition.

Both of the 2000 horsepower DeLaval engines (EG007 and EG008) were installed in 1972 and at that time natural gas-fired engines were exempt from the requirement to obtain a permit to install. There are no current emission limits for this flexible group. Per 40 CFR Part 63 Subpart ZZZZ, CO emission limits will become effective on October 19, 2013. Mr. Gage provided me with records of natural gas consumption for each emission unit listed in FGDELAVALS as required per the permit's monitoring/recordkeeping section.

FGCOLDCLEANERS

This facility has one parts cleaner (model no. 906601, serial no. 0087765) with an air/vapor interface of 7.96 square feet. The original cold solvent parts cleaner was replaced with a new model in 1999. In 2009, the parts cleaner had been moved from the maintenance building to the building that houses the two DeLaval engines. The parts cleaner was covered and operating procedures were posted. The parts cleaner solvent is the same material in use since the previous inspection. A copy of the cleaner material safety data sheet was posted and it identified the material as ZEP DYNA 143. The MSDS does not list any halogenated solvents and therefore appears to comply with the permitted material limits.

EMERGENCY GENERATOR

This facility has one emergency generator. This generator was rebuilt in the summer of 2005. I observed the single emergency generator and it did not appear that there were any significant changes made to this emission unit. The emergency generator is manufactured by Waukesha-Pearce Industries. The hours meter displayed 00397.8, which appears to indicate that the emergency generator was operated 101.4 hours since I last inspected this facility on December 1, 2010.

CONCLUSION

This source appears to be in compliance with ROP conditions, PTI conditions and applicable requirements.

NAME *John A. Elmerick*DATE *8/15/13*SUPERVISOR *CTE*