

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

N709233457

FACILITY: CHEVRON MICHIGAN, LLC - CLEARWATER 2 CPF		SRN / ID: N7092
LOCATION: CLEARWATER 2, RAPID CITY		DISTRICT: Cadillac
CITY: RAPID CITY		COUNTY: KALKASKA
CONTACT: Natalie Schrader , SR. Production assistant		ACTIVITY DATE: 02/10/2016
STAFF: Caryn Owens	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled Field Inspection & Records Review		
RESOLVED COMPLAINTS:		

On Wednesday, February 10, 2016, Caryn Owens of the DEQ-AQD conducted a scheduled field inspection of the Chevron – Clearwater 2 facility (SRN: N7092) located in the southwest quarter of the southeast quarter of the southeast quarter of Section 19, Township 28 North, Range 8 West in Clearwater Township, Kalkaska County, Michigan. More specifically, the site is located on the west side of Ruttan Road NW, approximately ½ mile north of the Plum Valley Road NW and Ruttan Road NW intersection. The facility is approximately ¼ mile in from Ruttan Road NW, and an access gate that was locked during the inspection is located near the entrance of the site. It is recommended to receive an access key and a H2S monitor during the inspection. The field inspection and records review were to determine compliance with permit to install (PTI) 14-10. This facility is considered an opt-out source due to the PTI Condition VII.1 under Reporting, which is in regard to changing out the engine at the facility. An inspection brochure was not given to anyone at this facility, but a brochure will be emailed to the company with this inspection report. The site is an area source for National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subpart HH, and NESHAP 40 CFR Part 63 Subpart ZZZZ. The State of Michigan does not have delegated authority of the area source NESHAPs, and thus these areas were not reviewed by the MDEQ at this time.

Evaluation Summary

The activities covered during this full compliance evaluation (FCE) appear to be in compliance with PTI 14-10. Review of the records for the facility indicates the facility was in compliance with emission limits in accordance to the PTI. No further actions are necessary at this time. Specific permit conditions that were reviewed are discussed below.

Source Description:

DEQ was unaccompanied during the field inspection. The site was covered in snow, and the weather conditions were cloudy and snowing, with winds approximately 10-15 miles per hour from the north-northwest, and 11 degrees Fahrenheit. There was one large building at the site, an above ground storage tank on the southeast portion of the site, and an iron sponge west of the building. The equipment in the building contained: a compressor engine; vertical separators; and a glycol dehydrator system. The glycol dehydrator was used to dry the field gas prior to transporting it to the sales line. The compressor engine was a 1265 horsepower (hp) Caterpillar 3516LE, identified on the engine block as GCS 997. The engine was operating at 1,233 revolutions per minute, 186 degrees Fahrenheit, and 54 pounds per square inch of pressure. The engine was uncontrolled, and the stack on the compressor engine contained a muffler and was approximately 50 feet above ground surface, no visible emissions were observed from the compressor engine stack.

Records Reviewed

EUDEHY: The glycol dehydration system processes gas from the Antrim zone. The applicable requirements of this emission unit are regulated by the NESHAP 40 CFR Part 63 Subpart HH, and the DEQ does not have delegation for the NESHAP, so these areas were not addressed during this facility inspection and records review. Chevron is claiming the glycol dehydrator at the Clearwater 2 facility meets exemption R336.1288(b)(ii), which exempts a glycol dehydrator that is located at a site or facility that only processes natural gas from the Antrim zone.

EUENGINE1: A Caterpillar 3516LE natural gas fired reciprocating internal combustion engines, at 1265 hp, with no control.

Emission Limits: Emission limits were 60 tons of NOX per year based on a 12-month rolling time period, and 30 tons of CO per 12-month rolling time period. Based on the records reviewed from

December 2014 through December 2015, the highest emissions reported were 21.95 tons of NOx per 12-month rolling time period, and 20.86 tons of CO per 12-month rolling time period, which were within the permitted emission limits.

Materials/Fuels: According to Chevron, no sour gas is burned at the facility.

Process/Operational Parameters: The facility submitted a Malfunction Abatement Plan (MAP) on February 18, 2010, and was approved by the DEQ on July 15, 2010 to address the Caterpillar lean burn engine at the facility. Based on the maintenance records, the engine was generally inspected on a daily basis. The engine was shut down for a total of 91.9 hours from December 1, 2014 through December 31, 2015, for general maintenance on the engine, such as: replacing filters, valves, spark plugs, and/or repair leaks. The records did not show maintenance concerns with the engine.

Testing Sampling Equipment: The facility used engine specific emission factors to calculate the emissions for NOx and CO. Performance testing has not been completed at this facility. Verification of the sulfur content in the field gas was not requested at this time.

Monitoring/Recordkeeping: The facility monitors the natural gas usage for EUENGINE1 on a continuous basis and records the monthly fuel use for each engine at the facility. The facility records monthly and 12-month rolling time period records for NOx and CO. The 12-month rolling time period emissions are discussed above under emission limits. The facility maintains a log of maintenance activities on EUENGINE1, which is discussed in more detail under Process/Operational Parameters above. The calculations and records are completed in an acceptable manner.

Reporting: The facility has not swapped out an engine at the facility since the PTI 14-10 was issued.

Stack/Vent Restrictions: Based on visible observations during the field inspection, the stack of the engine appeared to be at least 50 feet above ground surface.

NAME

Caryn Owens

DATE

2/10/16

SUPERVISOR

JB