

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

P001528368

FACILITY: Atlas Gas and Oil Co.- Brown Twp.		SRN / ID: P0015
LOCATION: T22N R15W SEC 10 NE SW NW, NORWALK		DISTRICT: Cadillac
CITY: NORWALK		COUNTY: MANISTEE
CONTACT: Natalie Schrader , SR. Production assistant		ACTIVITY DATE: 12/10/2014
STAFF: Caryn Owens	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled Inspection and Records Review		
RESOLVED COMPLAINTS:		

On Wednesday, December 10, 2014, Caryn Owens of the DEQ-AQD conducted a scheduled on-site inspection of the Chevron Michigan, LLC – Chief Creek / Brown 10 CPF (P0015) located in the northeast quarter of the southwest quarter of the northwest quarter of Section 10, Township 22 North, Range 15 West in Brown Township, Manistee County, Michigan. More specifically, the site is located on the west side of Kenny Road, approximately ¼ mile north of the Kenny and Coates Road intersection. There is an access gate at the Property which was locked at the time of the inspection. DEQ parked at the gate and walked to the building, which was approximately 1/3 mile from Kenny Road. The purpose of this inspection was to determine the facility's compliance with permit to install (PTI) 283-09. The site is currently a minor source where the operational and/or production limits potential to emit (PTE) are below major source thresholds. DEQ was unaccompanied during the field inspection; an inspection brochure was not given to anyone at this facility, but one will be emailed to the company. The site is an area source for National Emission Standards for Hazardous Air Pollutants (NESHAP) Part 63 Subpart HH, and NESHAP 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. The weather conditions were sunny, with calm winds from the north, and approximately 25°F.

The equipment at the site consisted of a main building containing: a compressor engine; vertical separators; and a glycol dehydrator. DEQ observed a restricted area due to radioactiveness, which contained vertical separators inside the building near the compressor engine. The glycol dehydrator was in the southwestern portion of the building, and was used to dry the field gas prior to transporting it to the sales line. DEQ observed a slight steam plume from the glycol dehydrator stack, but no visible emissions from the glycol dehydrator process heater. Slight petroleum-like odors were present just west of the building near the glycol dehydrator, but dissipated quickly. The glycol dehydrator stack was approximately 12 feet above ground surface and associated process heater stack was approximately 25 feet above ground surface. The compressor engine was a Caterpillar 398, identified on the nameplate on the east side of the engine, and was operating at 1049 RPM and 65 psi, and was equipped with a catalytic converter and Air to Fuel Ratio Controller (AFRC). DEQ observed the outlet temperature as 974°F, but was not able to read the inlet catalyst temperature without pushing buttons. The AFRC reading was L: 0.785, 1473 and R: 0.735, 1422. The stack on the compressor engine contained a muffler and was approximately 40 feet above ground surface, no other visible emissions were observed from the compressor engine stack. The storage tank that was northeast of the building was removed from the site in September 2013.

### Records Reviewed

**EUDEHY:** The glycol dehydration system processes gas from the Antrim formation 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 Chief Creek facility glycol dehydrator meets exemption R336.1288(b)(ii).

**EUENGINE:** A natural gas fired reciprocating engine with a catalytic converter and AFRC. During this field inspection the engine was a 700 horsepower (hp), rich burn Caterpillar G398 TAW, and a nameplate was on the eastern portion of the engine.

- **Emission Limits:** The facility is limited 10 tons per 12-month rolling time period of NO<sub>x</sub> and 20 tons per 12-month rolling time period of CO. Based on the records reviewed, the highest emissions between November 2013 through November 2014 was 2.3 tons per 12-month rolling time period for NO<sub>x</sub> and 3.2 tons per tons per 12-month rolling time period for CO. The emissions are compliant with the permitted limits.
- **Materials/Fuels:** No material limits were applicable for EUENGINE.
- **Process/Operational Parameters:** The facility submitted a Malfunction Abatement Plan (MAP) on March 1, 2010, and was approved by the DEQ on July 15, 2010. Based on the maintenance records, the engine was inspected daily. The compressor was shut down for a total of 30.30 hours from November 2013 through November 2014 for replacing filters, valves, spark plugs, and/or repair leaks. The catalyst was

cleaned, and Exterran completed and engine emissions analysis using an hand-held analyzer. Based on the emissions analysis, NOx emissions were reported at 22.38 tons per year pre-control, and 1.7 tons per year after the catalyst control. The emissions for CO were 46.96 tons per year pre-control, and 2.98 after catalyst control. DEQ checked the catalyst temperatures, and the catalyst appeared to be operating properly during the reported time period, and the facility did not operate the engine without the catalytic converter. The records did not show maintenance concerns with the engines.

**Testing Sampling Equipment:** The facility used engine specific emission factors to calculate the emissions for NOx and CO. Performance testing has not been conducted at this facility.

**Monitoring/Recordkeeping:** The facility monitors the natural gas usage for EUENGINE on a continuous basis and records the monthly fuel use for the engine. 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 highest monthly emissions from November 2013 through November 2014 were 0.20 tons per month for NOx and 0.25 tons per month for CO.

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

**Stack/Vent Restrictions:** Based on visible observations during the field inspections, the stacks of the engines appeared to be at least 40 feet above ground surface.

**Evaluation Summary:** Based on the field inspection and records review, the facility is in compliance with PTI 283-09, and no further actions are necessary at this time.

NAME Carlyn Chrus

DATE 12/16/14

SUPERVISOR 