

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

N646533470

FACILITY: CMS Gas Transmission Co. - ST KALKASKA D1-13		SRN / ID: N6465
LOCATION: SEC 13 NW 4 T 27N R 8W KALKASKA TWP, KALKASKA TWP		DISTRICT: Cadillac
CITY: KALKASKA TWP		COUNTY: KALKASKA
CONTACT: Dave Dowhan , Manager		ACTIVITY DATE: 02/10/2016
STAFF: Caryn Owens	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled Field Inspection & Records Review		
RESOLVED COMPLAINTS:		

On Wednesday, February 10, 2015, Caryn Owens of the Department of Environmental Quality (DEQ) – Air Quality Division (AQD) conducted a scheduled field inspection and records review of CMS Energy – State Kalkaska D1-13 facility (SRN: N6465), located in the northwest quarter of Section 13, Township 27 North, Range 8 West in Kalkaska Township, Kalkaska County, Michigan. More specifically, the facility was located on the east side of Smith Lake Road, approximately 2/3 mile north of the Island Lake Road and Smith Lake Road intersection. The field inspection and records review were to determine compliance with the Permit to Install (PTI) 150-98. An inspection brochure was not given to anyone at the facility, but will be emailed to the company with this inspection report. The facility is currently a minor source for volatile organic compounds (VOCs) criteria pollutants, and is an area source of hazardous air pollutants (HAPs). The source is subject to National Emission Standard for Hazardous Air Pollutants (NESHAP) from Oil and Natural Gas Production facilities (40 CFR Part 63, Subpart HH). The State of Michigan does not have delegated authority of this area source NESHAP, and thus the NESHAP requirements were not reviewed by the DEQ at this time.

**Evaluation Summary**

Based on the activities covered during this field inspection, the facility appears to be in compliance with PTI 150-98. Review of the records for the facility indicates the facility was in compliance with emission limits in accordance with the current PTI. No further actions are necessary at this time. Specific permit conditions that were reviewed are discussed below.

**Source Description**

The State Kalkaska D1-13 facility is a natural gas processing facility that draws oil and gas from the Niagaran formation. The site consists of: a glycol dehydrator system on the western portion of the site; a blowdown tank; process heater; two above ground storage tanks on the southeastern portion of the facility, and a small V6 compressor engine inside the building on the northern portion of the site.

**On-site Inspection:**

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. A slight petroleum odor was observed on the western portion of the site in the area of the glycol dehydrator, but it was not considered a nuisance odor.

A small compressor engine was located northeast portion of the site. The engine block of the compressor read GCS 374, and the engine was operating at 1,004 revolutions per minute (RPMs), 40 pounds per square inch (psi) of pressure, and 190 degrees Fahrenheit. A field sheet was periodically filled out, and the field sheet identified the engine as Unit #xx20720. No control was on the engine, and DEQ observed a horizontal muffler, and an approximately 10 foot stack. A steam plume was observed from the engine stack, but no odors were noticed around the engine. CMS Energy is claiming the engine meets exemption Rule 336.1285(g), indicating the engine has a maximum heat input less than 10,000,000 BTU per hour.

Additionally, the facility claims exemptions for the following equipment at the facility:

- Rule 336.1284(e) which exempts sweet crude oil storage vessels that have capacity less than 40,000 gallons.
- Rule 336.1284(i) which exempts VOC transfer operations from vessels that have storage capacity less than 40,000 gallons.

**PTI Compliance Evaluation - Glycol Dehydrator:**

**Special Condition (SC) 1:**

The permitted limit for VOCs is 26.6 tons per year based on a 12-month rolling time period. On June 9, 2010, DEQ agreed that the frequency to calculate the benzene and VOC emissions rates could be reduced from a monthly to a quarterly basis. Based on the quarterly records reviewed from December 2014 through December 2015, the highest VOC emissions reported were 0.0036 tons per year based on a 12-month

rolling time period. VOC emissions were within the permitted limits.

**SC 2:**

Additionally the benzene emission rate limit is 42 pounds per year based on a 12-month rolling time period. Based on the records reviewed from December 2014 through December 2015, the highest benzene emission rate was 7.77 pound per year. Benzene emissions were within the permitted limits.

**SC 3:**

A GRI-GlyCalc analysis and wet gas analysis is completed on a yearly basis. The most recent wet gas analysis was completed March 3, 2015. GRI-GLYCalc Version 4.0 was used to calculate the VOC and benzene emission rates.

**SC 4:**

The stack parameters for the glycol dehydrator was 2 inches for the maximum diameter of the exhaust, and at least 8 feet above ground surface. During the field inspection the top portion of the still appeared to meet the stack height requirements.

**SC 5:**

As previously stated, GRI-GLYCalc Version 4.0 was used to calculate the VOC and benzene emission rates. No additional testing has been requested at this time to verify the VOC and/or benzene emission rates.

NAME Carlyn Owens

DATE 2/10/16

SUPERVISOR 