

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

P018548879

FACILITY: Lambda Energy Resources LLC - Kruegerald		SRN / ID: P0185
LOCATION: Beaudain Rd NW 1/4 of the SW 1/4 sec 4 T29N R7E, OSSINEKE		DISTRICT: Gaylord
CITY: OSSINEKE		COUNTY: ALPENA
CONTACT:		ACTIVITY DATE: 05/08/2019
STAFF: Bill Rogers	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Compliance inspection and record review		
RESOLVED COMPLAINTS:		

On May 8, 2019, I inspected the Lambda Energy Resources CPF located on Beaudoin Road, Ossineke Township, Alpena County. I did not find any violations of Air Quality regulations or of its Permit to Install, No. 230-10.

There is some inconsistency about the name of this facility. Different documents list it as the Kruegerald or Krugerand CPF. Attempting to sort this out, I noted the sign on the compressor shed. According to field notes the sign read:

Lambda Energy Resources LLC / Kruegerland Central Production Facility / NW SW Sec 4 - T29N - R7E / Alpena County / Emergency # 1-800-328-7430.

This is yet a third spelling for the facility name.

The facility consists of one medium Caterpillar natural gas fired compressor engine with no catalytic oxidizer, inside the facility shed; one glycol dehydrator, also inside the shed; two 400 barrel standard sized oil field storage tanks, labeled as brine water, inside a lined berm; and several miscellaneous small tanks.

Table EUDEHY: Glycol dehydrator. I did not find the builder's plates this time, but according to a previous inspection it was equipped with a 200,000 BTU per hour flame arrested natural gas fired burner. I could not tell whether it was operating. It had no opacity or odors.

Condition III.1 of Table EUDEHY requires compliance with MACT HH, or more formally National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 63, Subpart HH. The United States EPA has not delegated enforcement of this area source MACT to the AQD. Nevertheless, I did look at it. In my opinion it likely meets one of the exemptions from the more stringent pollution control provisions of MACT HH. Specifically, MACT HH exempts dehydrators which emit less than 0.90 megagrams (about one ton) of benzene per year. According to GRI Gly-Calc results provided with the permit application, this facility emits 48.7723 tons per year of total hydrocarbons, all of which is methane. That would indicate it meets the one ton exemption in Subpart HH.

There are two 300 gallon drum on stilts style tanks associated with the glycol dehydrator. They are just outside the shed wall, standing over lined wooden berm structures. One is labeled triethylene glycol, the other is labeled methyl alcohol.

Table EUENGINE: 1340 HP Caterpillar 3516LE natural gas fired compressor engine. It has no add-on control device. It was identified as "GCS 1004" in metal characters welded to the engine mount. This is the same identification number noted in an inspection here in 2012. It means this was Unit 1004 of Gas Compression Services Inc. at the time it was installed.

The engine was operating at the time of my inspection. I noted there was no opacity, no odors, and no unusual vibration. According to digital readouts on a panel near the engine, it had 93,072 hours of operation, oil pressure 57 PSI, 908 RPM, 27 volts, coolant temperature 191 degrees f.

Permit 230-10, table EUENGINE, Condition I.1, sets a NOX limit of 26 tons per year. Emission calculations, attached, claim NOx emissions of 8 tons in the 12 months ending February 2019. This

complies with the permit condition.

Condition I.2 sets a CO limit of 24 tons per year. Emission calculations, attached, claim CO emissions of 7.20 tons in the 12 months ending February, 2019. This complies with the permit condition.

Condition I.3 sets a formaldehyde limit of 5.3 tons per year. Emission calculations, attached, claim formaldehyde emissions of 1.60 tons in the 12 months ending February, 2019. This complies with the permit condition.

Condition III.1, requires the permittee to submit a preventative maintenance plan. The company did submit one. AQD approved it on March 3, 2011.

Condition III.2 limits hours of operation without the add-on control device, if the engine has one. It does not, so this condition does not apply.

Condition IV.1 is about maintaining add on control devices, so it also does not apply.

Condition IV.2 requires installing and maintaining a device to measure fuel gas use. I did not find this. The emission reports, attached, include gas consumption figures. This suggests a device to measure gas consumption exists.

Condition VI.2 requires monitoring natural gas use. Condition VI.5 requires recording natural gas use. Natural gas use is included on the emission calculations, attached. It appears the facility complies with these permit conditions.

Condition VI.3 requires a maintenance log. A copy of the most recent page of the maintenance log is attached. This complies with the permit condition.

Condition VI.4 requires keeping track of hours of operation without any add-on control device, if one is normally installed. This facility doesn't have one, so this condition does not apply.

Conditions VI.6, 7, and 8 require recording NOx, CO, and formaldehyde emission calculations. These are included on the attached emission calculation sheet. This complies with the permit conditions.

Condition VIII.1 sets stack dimensions as maximum diameter 12 inches, minimum height 18 feet. I noted stack dimensions as diameter 12 inches, height 18 to 20 feet. This complies with the permit condition. The exhaust exits through the rear wall of the building, passes through a muffler, and then is redirected by a pipe elbow to exhaust unobstructed vertically upward.

Small tanks associated with EUENGINE include two 300 gallon drum on stilts tanks inside the compressor shed, one labeled as HDAX low ash gas engine oil and the other as ISO 100 lubricating oil; also a small metal tank which appeared to be for engine coolant.

Table FGFACILITY

Condition II.1 prohibits burning sour gas. I did not smell or see anything that made me think sour gas was being used at the facility.

Comments:

Maintenance appeared good. I did not notice any odors at the facility. I did not see any leaks, any stained soils, or any other evidence of spills.

NAME William J Rogers, Jr

DATE 5/16/2019

SUPERVISOR SN