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

P018449125

FACILITY: Lambda Energy Resources, LLC - Winston Churchill		**SRN / ID:** P0184
LOCATION: W. Baily Rd NE 1/4 of the SE 1/4 Sec 21 and, COMINS		**DISTRICT:** Gaylord
CITY: COMINS		**COUNTY:** OSCODA
CONTACT:		**ACTIVITY DATE:** 06/07/2019
STAFF: Bill Rogers	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Compliance inspection and records review		
RESOLVED COMPLAINTS:		

On June 7, 2019, I inspected the Lambda Winston Churchill CPF. I did not find any violations of their permit, No. 229-10, or of Air Quality rules.

Permit 229-10, Table EUDEHY, requires compliance with the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 63, Subpart HH. The United States EPA has not delegated enforcement of this Subpart to AQD. However, based on previous experience it is extremely likely the dehydrator at this facility would be exempt from the more stringent pollution control provisions of Subpart HH. This Subpart exempts dehydrators which emit less than approximately 1 ton per year of benzene. This facility processes Antrim Formation gas, which is low on hazardous air pollutants, including benzene. For all such dehydrators for which I have seen estimates, benzene emissions came out as a trace at most.

Table EUENGINE, Conditions I.1 and I.2, set NOx limits at 6 tons per 12 month period and CO as 13 tons per 12 month period. According to emissions estimates, attached, emissions in the period ending February 2019 were about 1.70 tons NOx and 3.70 tons CO per 12 month rolling time period. This complies with the permit conditions.

Condition II.1 limits natural gas use to 28 million cubic feet per 12 months. The reported amount used is 14.4 million cubic feet per 12 months. This complies with the permit condition.

Condition III.1 requires a Malfunction Abatement Plan. The company submitted one. AQD approved it April 27, 2018. This complies with the permit condition.

Condition III.2 limits operation without the catalytic oxidizer to no more than 200 hours per year. The company claims they did not operate without the catalytic oxidizer in the past 12 months. This complies with the permit condition.

Condition IV.1 requires the catalytic oxidizer be installed and operating properly. The catalytic oxidizer is installed. During my inspection the readout for catalytic oxidizer temperature, one of two points measured, was 870 degrees f. According to data written on a log sheet on a clipboard at the engine, outlet temperature the day of my inspection was 871 degrees f; that is consistent with the temperature on the display I saw being the outlet temperature. The log form also claimed inlet temperature that day was 781 degrees f. A temperature rise across the catalytic oxidizer implies that it is burning pollutants from the exhaust stream, which in turn implies that it is operating properly, in compliance with the permit condition.

Condition IV.2 requires an engine fuel flow monitor. Condition VI.2 requires monitoring fuel use. Condition VI.5 requires recording fuel use. I did not find the monitor during my inspection, but where it has been pointed out to me by a facility operator it is an inconspicuous, unlabeled box, so that doesn't mean it isn't present. The emission summary form, attached, includes fuel use numbers which implies that there is a monitor. Also fuel use is being recorded as required.

Condition VI.3 requires a maintenance log. A sample page of the maintenance log is attached.

Condition VI.4 requires logging hours of operation without the catalytic oxidizer. A form for this is attached. It is blank, but that may be correct if (as the company claims) they did not operate without the catalytic oxidizer.

Condition VI.6 and VI.7 require monthly and 12 month NOx and CO estimates. These are included on the emission sheet, attached.

Condition VIII.1 sets engine stack dimensions as a maximum diameter of 12 inches at a minimum elevation of 30 feet. The stack appeared to meet these conditions.

Table FGFACILITY, Condition II.1, prohibits burning sour gas at the facility. I did not see or smell anything which would make me suspect there was sour gas being supplied to the facility.

COMMENTS

You reach the facility via an access trail from Boiling Springs Road, which is to the north of the facility.

I estimated the height of the engine stack by measuring its shadow length compared to my own. It appeared to be about 12 inches in diameter and perhaps 38 feet tall. The required dimensions are no more than 12 inches diameter and no less than 30 feet tall.

There is a glycol dehydrator on site. I did not see a plate identifying the dehy burner but it was about typical size for this sort of facility. The still vent was perhaps 22 feet tall and 2 inches diameter, ending in a T pipe fitting. The burner stack was about 21 feet tall and 4 inches diameter ending in a flat cap.

The engine was a medium sized Caterpillar natural gas fired type with catalytic oxidizer. It did not have any unusual vibration or smoke. There was no opacity from the exhaust. It was running at the time I saw it. Metal characters welded to the engine mount identified it as GCS 1135. According to the data log sheet, inlet catalyst temperature was 781 and outlet was 871 degrees f.

It has a box labeled AFRC control on the control panel. This has a digital readout which said "auto operation." The engine was running at 721 RPM, according to a digital readout on the panel. Other instruments read: Catalyst Point 2 (presumably outlet) 870 degrees f, engine oil temperature 185 f, engine coolant temperature 190, compressor oil temperature 160, engine oil pressure 50 psi, compressor oil pressure 60 psi.

Tanks on site included two 400 barrel tanks inside a lined berm, labeled Brine Water. These were piped to a well labeled Lambda Resources LLC / Permit #52399 / Larrison CH--21 SWD / NE NE SE Sec 21-T29N - R03E / Oscoda County / Emergency # 1-800-328-7430.

Smaller tanks included, outside the east wall of the compressor shed, an oval metal tank which is probably coolant, and a 300 gallon drum on stilts tank labeled triethylene glycol, near the dehydrator. Both these tanks were over lined wooden berm structures. Inside the compressor shed I saw two 300 gallon drum on stilts tanks over wooden, lined berms; one was labeled Chevron HDAX low ash gas engine oil, one as Chevron Regal R&O ISO 100 oil. There was a larger, orange painted drum type tank on the floor labeled Waste Oil.

I noticed mild glycol odors near the dehydrator. I didn't notice any other odors. I didn't notice any opacity. I didn't notice any leaks or spills, or stained soils that would make me suspect there had been leaks or spills earlier.

Maintenance looked adequate. Everything looked good except for some rust on the brine tanks.

NAME William J Rogers L. DATE 6/14/19 SUPERVISOR