

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

N807548865

FACILITY: Lambda Energy Resources, LLC - 35-12 Unit		SRN / ID: N8075
LOCATION: 14696 M-65 South, LACHINE		DISTRICT: Gaylord
CITY: LACHINE		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 35-12 CPF. This report covers that inspection and a review of records required by that facility's Permit 200-08A.

I didn't find any violations during this inspection.

Glycol Dehydrator conditions are listed in Permit 200-08A, table EUDEHY.

Condition VI.1 of this table requires that if the glycol dehydrator meets one of the exemptions from NSPS Subpart HH the permittee must document this. Condition VI.1(b) gives one method as showing gas throughput to the dehydrator was less than 85,000 cubic meters per day. This is approximately 3 million cubic feet per day. Information received for previous inspections indicated that actual throughput of the glycol dehydrator, a few years ago, was about 0.15 million cubic feet per day.

This was far below the point at which the more stringent emission control measures NSPS Subpart HH requires on large glycol dehydrators would go into effect. The US EPA has not delegated authority to administer NSPS Subpart HH to AQD, so I am not going to investigate this issue further, but best information is that this facility's throughput is far too small for NSPS Subpart HH control measures to be required.

Conditions for the Caterpillar natural gas fired internal combustion engine, with catalytic oxidizer, are listed in table EUENGINE1.

Condition I.1 of this table limits NOx emissions to 9 tons per year. Emission reports (attached) estimate NOx emissions as 4.16 tons per the 12 months up to and including February, 2019. This meets the requirements of Condition I.1.

Condition I.2 of this table limits CO emissions to 3 tons per year. Emission reports (attached) estimate CO emissions as 0.62 tons per the 12 months up to and including February 2019. This meets the requirements of the permit condition.

Condition I.3 of this table limits formaldehyde emissions to 0.45 tons per year. Emission reports (attached) estimate formaldehyde emissions as 0.27 tons in the 12 months up to and including February, 2019. This meets the requirements of the permit condition.

Condition III.1 requires an approved Preventative Maintenance/Malfunction Abatement Plan. The required plan was submitted and approved in February of 2010. Records are being kept as required by this plan.

According to a data sheet I saw on a clipboard at the facility, catalyst input was 901 degrees f, outlet 902 degrees f on the morning of May 8. At the time I was there a readout on the control panel said "Point 2" (probably outlet) was 897 degrees f. All of these temperatures are within the range of 750-1350 degrees f specified in the malfunction abatement plan. The outlet temperature on the morning of the 8th was marginally higher than the inlet. Although the numbers are so close that one can't be certain, a temperature rise across the catalyst should indicate that it is burning contaminants in the exhaust stream as it is meant to do.

Condition III.2 limits operating without the catalytic oxidizer to 200 hours per year. The attached records

claim the facility did not operate without the catalytic oxidizer during the last year.

Condition IV.1 requires the catalytic oxidizer to be installed and operating properly. During my on site inspection the device was in place, and based on inlet and outlet temperatures recorded by the operator it was operating properly.

Condition VI.2 requires a device to measure gas flow to the engine. This is located in a box with a digital display of various facility data, mounted on the outside of the compressor shed on the south side near the southeast corner. Fuel flow was 42.2 mscfd on the day prior to my inspection.

Condition VI.3 requires a log of maintenance activities as performed under the PM/MAP. A copy of this log is attached.

Condition VI.4 requires a log of hours of operation without the catalytic oxidizer. A copy of this log is attached. It is blank, which is a claim that there was no time operating without the catalytic oxidizer.

Condition VI.5 requires monthly fuel use records. This is included with the emissions estimates, attached.

Condition VI.6 requires monthly NOx calculations. The company has done these calculations. Results are attached.

Condition VIII.1 requires maximum exhaust diameter of five inches, minimum height 18 feet, and discharge unobstructed vertically upward. During my inspection I estimated exhaust height as about 18 feet, based on the length of its shadow compared to the length of my own. Stack diameter appeared to be about four inches. The stack exhausted unobstructed vertically upward. These observations indicate the stack meets the permit condition.

Facility-Wide conditions are covered in table FGFACILITY.

Condition I.1 and I.2 limit NOx to 39 tons per year and CO to 89 tons per year, respectively. Based on calculations, attached, the facility appears to comply with the permit limits..

COMMENTS:

The facility includes two 400-barrel size tanks inside a bermed area. They appear to be brine tanks. They are vented to the atmosphere and have no odors. They are piped to a well labeled Lambda Energy Resources LLC / Permit #53036 / State Ossineke B3-36 SWD / SW SW NE Sec. 36 - T29N - R05E / Alpena County / Emergency # 1-800-328-7430. SWD stands for salt water disposal. The tanks are inside a lined berm.

The glycol dehydrator is smaller than most I have encountered at Antrim CPFs. I didn't see any builder's plate or specifications on the burner. The burner vent is about 4 inches diameter and 16 feet high, terminating in a cap. The still vent was a pipe about 1.5 inches diameter and 17 feet high, terminating in a T fitting. I did not smell any glycol odors.

Miscellaneous small tanks noted: Inside the compressor shed, 2 x 300 gallon drum on still tanks of lubricating oil near the engine; one labeled as HDAX low ash gas engine oil and one as ISO 150 industrial oil. One waste oil tank, orange-painted, larger than 300 gallon capacity. One 55 gallon drum labeled as 50/50 premixed glycol coolant. Outside the compressor shed, one oval metal tank which based on its location near the radiator of the engine is probably coolant. Two 300 gallon drum on still tanks outside, near the glycol dehydrator, over a lined wooden berm structure. One was labeled as methyl alcohol and the other as triethylene glycol.

I did not notice any opacity or odors. I did not notice any stained soils which would suggest there had been spills. Maintenance appeared good.

NAME William J Rogers Jr

DATE 5/16/2019

SUPERVISOR SN

