

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

FCE Summary Report

Facility : Linn Operating, LLC - Loud 15 CPF	SRN : N6158
Location : SW4 NW4 NW4 SEC 15, T29N-R3E	District : Gaylord
	County : MONTMORENCY
City : LOUD TWP State: MI Zip Code : 49709	Compliance Status : Compliance
Source Class : SM OPT OUT	Staff : Sharon LeBlanc
FCE Begin Date : 10/24/2016	FCE Completion Date : 11/29/2017
Comments : Scheduled site inspection for fiscal year 2018. No compliance issues noted.	

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
10/24/2017	Scheduled Inspection	Compliance	scheduled site inspection for fiscal year 2018 at Loud 15 CPF station. Records were requested electronically the week of October 23, 2017, for review and incorporation into inspection report.
02/03/2017	MAERS	Compliance	2016 MAERS, Check MAERS for any review comments

Name: Sharon LeBlanc Date: 11/29/17 Supervisor: SN

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

N615842171

FACILITY: Linn Operating, LLC - Loud 15 CPF		SRN / ID: N6158
LOCATION: SW4 NW4 NW4 SEC 15, T29N-R3E, LOUD TWP		DISTRICT: Gaylord
CITY: LOUD TWP		COUNTY: MONTMORENCY
CONTACT: Diane Lundin , Senior EHS Representative		
STAFF: Sharon LeBlanc	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: scheduled site inspection for fiscal year 2018 at Loud 15 CPF station. Records were requested electronically the week of October 23, 2017, for review and incorporation into inspection report.		
RESOLVED COMPLAINTS:		

On Thursday, October 24, 2017, AQD District Staff mobilized to the Linn Operating LLC – Loud 15 CPF (N6158), located in the SW1/4, NW 1/4, NW 1/4 Section 15, T29N, R3E, Loud Twp, Montmorency County, Michigan to conduct a scheduled compliance inspection of the facility. The referenced facility presently operates under Permit to Install No. 717-96. A records request was made electronically on October 24, 2017.

The most recent compliance inspection was September 25, 2014. No compliance issues noted at that time.

FACILITY

The referenced facility is a fenced and unmanned CPF station operated by Linn Operating LLC (AKA Linn) and is located at 4875 Francisco Road. The station is reported to service Antrim Formation wells in the area. Activities onsite include separation of gas and brine from the incoming gas stream and compression of the gas in the lines.

To reach the facility Staff traveled north from the intersection of M-33 and CO-612 one-mile to Harwood Road. At Harwood Road, Staff turned to the west (left) and traveled two-miles to Francisco Road. At Francisco Road Staff turned south (left) (now Green Valley Trail). The site was located on the left-hand side of the road approximately 1/8th of a mile south of the intersection.

REGULATORY

Permitting -The referenced facility operates under Permit to Install (PTI) No. 717-96, which was issued to the Facility in 1996. The PTI was issued as an opt-out permit, but not a Rule 201 permit and was issued around the same time as other Michigan Oil and Gas Association (MOGA) permits that did not undergo 201 reviews. The PTI conditions were generic and refer to the stationary source as a whole rather than conditions that address individual pieces of equipment.

At the time of permitting the facility consisted of three NG-fired compressor and one glycol dehydration unit and was reported to have the potential to emit over 100 tons of NOx. The referenced permit limits the emissions to 89 tons per year for NOx, CO and VOCs.

Though not identified in the permit, the facility may be subject to Federal Regulation. Subparts frequently associated with oil and gas facilities are identified below. Note however, that compliance with these subparts has not been determined as part of this inspection.

Federal Regulations - The referenced facility does not process or store petroleum liquids, nor store them onsite and is therefore appears to not be subject to 40 CFR Part 60 (New Source Performance Standards AKA NSPS) Subparts;

- K, Ka or Kb (Storage vessels for Petroleum Liquids);
- KKK (Equipment Leaks of VOC from onshore NG Processing Plants);
- VV (Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry);

In addition, the existing engine(s) have installation dates no later than 1995, which would make them not subject to NSPS Subparts IIII and JJJJ for Compression Ignition (CI) RICE and Spark Ignition (SI) RICE, respectively.

Subpart OOOO would apply to onshore affected facilities that are constructed, modified or reconstructed after August 23, 2011. Based on available information it appears that the referenced subpart is not applicable at this time but that future changes may be subject to the referenced subpart.

With respect to 40 CFR Part 63 (Maximum Achievable Control Technology Standards) the following Subparts may apply:

- Subpart HH (HAPS from Oil and NG Production Facilities)
- Subpart ZZZZ (RICE)

With respect to Subpart HH, the affected unit is believed to be the dehy unit. However, the facility may comply with the standard by demonstrating an average throughput is less than 85K cubic meters/day or average benzene emissions are less than 0.9 Mg/yr (approximately 1 ton/yr). VOC emissions reported for 2016 calendar year 16.56 pounds. In correspondence dated November 9, 2016, wet gas data and GRI-GLYCalc version 4.0 yielded benzene concentrations of 0 ton/year.

With respect to Subpart ZZZZ, the facility reports that the engines on site are remote, and are subject to the referenced subpart.

EQUIPMENT

At the time of the October 12, 2017, site visit AQD Staff identified three compressors, one glycol dehydrator, one brine tank and one slop tank with lined-secondary containment were present onsite. Each of the referenced pieces of equipment are housed separately. Due to the overcast conditions at the time of the site inspection, no Visible Emissions (VEs) were or heat shimmers were noted from exhaust stacks onsite.

Review of District Files and annual emissions reports submitted by the facility indicate that at the time of permitting, three compressors were permitted onsite. A review of MAERs submittals for the facility identified the following engines. No records indicating engine swap outs/changes were of record for the site. No pollution control devices were identified with the referenced engines.

MAERs ENGINE ID	ENGINE TYPE	INSTALLATION DATE	REMOVAL DATE
EUCOMP#1	Superior 86 TLE 825	5/4/1992	NA (not operated since 2007)
EUCOMP#2	Caterpillar 3516 TA LE	2/24/1994	NA
EUCOMP#3	Caterpillar 3516 TA LE	2/22/1995	NA

Operational parameters for the referenced engines consists of the following:

EUCOMP#1, Superior 86 TLE 825- This unit was not operational at the time of the October 24, 2017, site inspection.

EUCOMP#2, Caterpillar 3516 TA LE, 3RC00633, installed 2/24/1994

Date	Engine	RPMS	Source
10/24/2017	Cat 3516	1175	Inspector/Onsite Daily Log
6/10/2017	Cat 3516	1165	Operator Field Sheets
8/2/2017	Cat 3516	1180	Operator Field Sheets
9/1/2017	Cat 3516	1198	Operator Field Sheets

EUCOMP#3, Caterpillar 3516 TA LE, 4EK00402, installed 2/22/1995

Date	Engine	RPMS	Source

MACES- Activity Report

10/12/2017	Cat 3516	1175	Inspector/Onsite Daily Log
6/30/2017	Cat 3516	1170	Operator Field Sheets
7/30/2017	Cat 3516	1177	Operator Field Sheets
9/1/2017	Cat 3516	1200	Operator Field Sheets

The glycol dehydrator referred to as Dehy Still, Antrim -90/15 pump, was reported to have been installed on May 4, 1992.

COMPLIANCE

At the time of the October 24, 2017, site visit, no visible emissions were noted to be coming from onsite stacks, nor were there any liquids collected in the secondary containment of the brine tank.

MAERS- Reporting of actual emissions for CO, NOx, VOCs and HAPs is required under special condition 18 of the permit. A review of the most recent MAERS submittal for the facility (received on February 2, 2017 for emissions associated with the calendar year 2016) included emissions for three engines and one glycol dehydrator onsite.

Total emissions reported for the calendar years 2014, 2015 and 2016 for MAERS as well as random dates from data submitted as part of the information request to Linn are summarized below:

CALENDAR YEAR	NOX (tpy)	CO (tpy)	VOC (tpy)	Single HAP
2014	38.64	34.79	9.28	4.27
2015	37.94	34.15	9.12	4.20
2016	37.61	35.85	9.04	4.16
Sept. 2017**	36.80	33.12	8.83	-
October 2015**	38.05	34.25	9.13	-
EMISSION LIMITS	89	89	89	9

*reflects AQD calculated formaldehyde emissions

**emissions reported as part of post inspection data submittal by Linn

Permit Conditions -Special conditions associated with Permit No. 745-96 are limited to record keeping, reporting and emission limits. Emission limits for the facility are defined in special conditions 13 and 14. These two conditions limit CO, VOC and NOx emissions to 89 tons/year for each referenced parameter as well as individual HAPs to below 9 tons/year and total HAPs to below 22.5 tons/year.

Calculation of actual emissions on a monthly and 12-month rolling total for CO, NOx, VOC and HAPS are required under special condition 15. The PTI specifies that emissions will be determined using emission factors from Appendix A. Except for NOx and CO emissions for the two engines, the emissions for the facility were calculated using EPA emission factors.

Special condition No. 16 and/or 17 require Monthly records of:

- Fuel consumption, in million cubic feet (MMcf)
- Crude/condensate throughput to the tank in barrels (bbls)
- Hydrocarbon liquid trucked offsite (bbls), and
- Oil and gas processed onsite

Special condition 19 requires the owner or operator of the source to conduct all necessary maintenance and make all necessary attempt to keep all components of the process equipment in proper working order and maintain a log of significant maintenance activities and all repairs made to the equipment. Records provided Linn indicate that maintenance activities are subcontracted to Natural Gas Compression Systems. Field maintenance reports. Reports provided indicated a regular maintenance schedule, and general compliance with the permit condition.

MACES- Activity Report

Special condition 20 applies to crude oil or condensate storage tanks greater than or equal to 952 barrels, and the liquid having a true vapor pressure of greater than 1.5 psia. This condition is not applicable as the facility does not store crude or condensate onsite.

Special condition 21 applies to malfunction of a pollution control device and limits bypass of the control device for a period not to exceed 48 hours per event nor a total of 144 hours per calendar year. The referenced permit condition is not applicable as no pollution control devices are associated with the engines onsite.

Special condition 22 requires the owner or operator of an oil-gas facility constructed on or after January 20, 1984 to determine if they are subject to Federal standards in 40 CFR, Part 60, Subpart KKK. No hydrocarbon liquids are reported to be produced at the facility, so the facility is reported not to be subject to the referenced Subpart.

Special condition 23 refers to requirements associated with verification stack testing for CO, VOC, NOx or HAP. No request for verification testing was found in District Files, so the condition is not applicable at the time of the report preparation.

Special condition 24 requires the facility to only process sweet gas as defined in Rule 119. Records provided by Linn indicated that hydrogen sulfide concentrations for gas samples collected at the Dehy inlet on November 1, 2016 were in compliance with the permit condition.

SUMMARY

On Thursday, October 24, 2017, AQD District Staff mobilized to the Linn Operating LLC – Loud 15 CPF (N6158), located in the SW1/4, NW 1/4, NW 1/4 Section 15, T29N, R3E, Loud Twp, Montmorency County, Michigan to conduct a scheduled compliance inspection of the facility. The referenced facility presently operates under Permit to Install No. 717-96.

A records request was made electronically on October 24, 2017. Records requested were received on November 19, 2017. Based on observations made at the time of the site inspection, as well as supplemental data received from the company it appears that the facility is operating in general compliance with its permit conditions.

NAME Steve Blawie

DATE 11/29/17

SUPERVISOR SN