

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

N615446793

FACILITY: Linn Operating, LLC - Briley 34 CPF		SRN / ID: N6154
LOCATION: NW4 NW4 NW4 T30N R2E SEC 34, BRILEY TWP		DISTRICT: Gaylord
CITY: BRILEY TWP		COUNTY: MONTMORENCY
CONTACT: Diane Lundin , Senior EHS Representative		ACTIVITY DATE: 10/29/2018
STAFF: Sharon LeBlanc	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: scheduled site inspection for Fiscal yea4 2019.		
RESOLVED COMPLAINTS:		

On October 29, 2018, AQD District Staff mobilized to the Linn Operating LLC (AKA Linn) Briley 34 CPF (N6154), located in the NW 1/4, of NW 1/4, of NW 1/4 of Section 34, T30 N, R2E, Briley Township, Montmorency County, Michigan to conduct a scheduled compliance inspection of the facility. The referenced facility presently operates under Permit to Install No. 713-96. A records request was made electronically on October 31, 2018. Data requested was received on December 31, 2018 and January 2, 2019.

Previous site inspection activities were conducted on June 9, 2017 and June 19, 2013. No compliance issues were identified with respect to the facility for those visits.

FACILITY

The referenced facility is a fenced and unmanned CPF station operated by Linn and is located in the NW 1/4, of NW 1/4, of NW 1/4 of Section 34, T30 N, R2E, Briley Township, Montmorency County. At the time of the site inspection the facility gate was open. Activities onsite include separation of gas and brine from the incoming Natural Gas (NG) stream and compression of the gas in the lines to aid in transport. Documentation in the Files from the initial permittee Wolverine Environmental Production Inc. memo dated August 16, 2004 expressed that the facility did not produce any oil.

The company had a name change in January 1997 to Dominion Midwest Energy, Inc. In a 2007 merger, the company became Highmount Midwest Energy LLC. On May 25, 2010 the Company became Linn Energy LLC.

To reach the facility from the intersection of M-32 and M-33 (the light) in Atlanta, Michigan, Staff traveled south on CR 487 just under 3/4-mile to the intersection with CR 489. At the intersection of CR 489 and 487 make a right and travel east from the intersection approximately 1/4-mile then turn left as CR 489 turns south and travel for approximately 1-mile. Continue to travel along CR 489 as it curves around Crooked Lake. From Crooked Lake, CR 489 (paved) will turn to the right (west) and go approximately 1.5-miles, then turns to the left (south). Travel south on the paved road for one-mile, the pavement ends, and the facility is located on the left-hand side of the road, just after it becomes unpaved.

A review of aerial photos readily available on the internet indicate that the location was an active oil and gas facility as early as 1994. 1992 aerials showed the property as undeveloped. Further development of the site occurred between 1994 and 1998, during which the Facility added three larger buildings to house equipment. Two structures (southern-most and western most building) were removed leaving only footings and pad prior to 2009. No significant changes were noted in aerials after 2009.

Adjacent properties were identified as being property of State of Michigan and appears to be undeveloped, forested lands. It should be noted that property to the immediate west as well as northwest of the Facility contain a number of private residences and developed parcels.

Weather conditions at the time of the site inspection included mostly sunny skies, and temperatures in the low-mid 40's. continuous steam was visible from what appeared to

be the dehydrator stack. It dissipated quickly, and no odor was noted. No emissions were noted from the compressor stacks at the time of the inspection.

REGULATORY

Permitting -The referenced facility operates under Permit to Install (PTI) No. 713-96, which was issued to the Facility on November 14, 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.

District files indicate that at the time of permitting one CAT 3512 RICE, Two CAT 3515 RICE and one glycol dehydration unit were reported to be onsite and had 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.

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);

With regards to the two existing engine(s) it appears that based on install dates of 1993 and 1995 that the existing RICE onsite would not be subject to NSPS Subparts IIII for Compression Ignition (CI) RICE and RICE.

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 A.K.A. MACT) the following Subparts may apply:

- Subpart HH (HAPS from Oil and NG Production Facilities)
- Subpart ZZZZ (Reciprocating Internal Combustion Engine aka RICE)

With respect to Subpart HH, the affected unit is believed to be the dehy unit. However, the facility appears to not be subject to the subpart having uncontrolled VOC emissions of <25 lbs annually, well below average benzene emissions of less than 0.9 Mg/yr. Correspondence dated January 22, 2018, regarding Subpart HH indicates that GRI-GLYCalc Version 4.0 indicated that benzene emissions for the Facility were 0 ton/yr (0 Mg/yr). A compliance determination has not been made with respect to this subpart, and at the time of report preparation AQD does not have authority to enforce the subpart.

With respect to Subpart ZZZZ, District Files contain copies of the October 18, 2013 re-notification for the subpart. The document indicates that engine associated with the Facility are existing (before June 12, 2006) area source of HAPs and subject to the subpart. They also indicated that the >500 HP are not subject to initial subpart testing. A compliance determination has not been made with respect to this subpart, and at the time of report preparation AQD does not have authority to enforce the subpart.

EQUIPMENT

At the time of the October 29, 2018, site visit AQD Staff identified two compressors with RICE, one glycol dehydrator, one each of sloop oil and produced brine tanks within lined-secondary containment.

A review of District Files indicates the following engines associated with the site:

INSTALL DATE	MAERs ENGINE ID	Other ID	TYPE	Dismantle Date	SOURCE
3/3/1995*	NA	Briley #3* LE-1	CAT 3512 s/n 7nj00059 No Catalyst	Sept. 2009 moved to Big Bass Lake	Facility Emission Reports
10/14/1993	EU- CAT3516LE#1	Briley #1* LE-2 CM3000	CAT 3516 LE 1085 Hp s/n 3rc000703 No Catalyst	NA	MAERS
3/03/1995 (4/18/95)	EU- CAT3516LE#2	Briley #2* LE-3 CM3001	CAT 3516 LE 1085 Hp s/n 4ek00275 No Catalyst	NA	MAERS

*Note – file records show discrepancy in installation dates with respect to month and day.

No Malfunction Abatement Plan (MAP) is of record for the Facility and it's associated RICE. A review of maintenance records provided by the Facility appears to indicate that the engines are being kept maintained for purposes of emissions. The more significant maintenance activities for 2017 and 2018 included Head change activities for Briley #2 on May 25, 2017, and a frame overhaul for the same unit on August 24, 2017.

Engine operational data observed as part of the October 1, 2018, site visit appears to be consistent with operational data documented on daily operational logs and spreadsheets. Operational data was also noted to be consistent between those reported in maintenance records and the company's operational spreadsheets.

The glycol dehydrator associated with the site was reported to be installed on October 14, 1993. As previously indicated that facility is reported to process only Antrim gas. The referenced equipment is reported to be a KimRay 90/15 pump. The glycol recirculation rate for the last two years was reported to range from 0.23 – 0.26 gallon/minute.

COMPLIANCE

At the time of the October 29, 2018, 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 28, 2018 for emissions associated with the calendar year 2017) included emissions for two RICE and one glycol dehydrator onsite.

Permit Conditions -Special conditions associated with Permit No. 713-96 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.

The following table summarizes both the MAERS for the calendar years of 2014 through 2017, as well as the 12-month rolling time total as of November 2018. All reported emissions were below permit limits.

Reporting Period	NOX (12-Month Rolling)	CO (12-Month Rolling)	VOC (12-Month Rolling)
December 2017 - November 2018	32.60	29.34	7.83
2017	33.81	30.44	8.12
2016	35.16	31.64	8.44
2015	36.46	32.81	8.75
2014	37.35	33.61	8.96
Limit	89 tpy	89 tpy	89 tpy

*Note that Appendix A HAP emission factors indicate “nil” for Antrim wells. 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, however, CO and NOx are determined based on Manufacturer emissions data. AP-42 EFs are used for other applicable contaminants.

Special condition No. 16, 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

Records provided indicated that the Facility monitors both fuel consumption by its equipment and volumes of gas processed on a monthly basis. It should be noted as no oil is processed onsite, neither monthly oil processing or hydrocarbon liquid totals are associated with the facility. The other requested monthly records were submitted as requested.

Special condition 19 requires the owner or operator of the source to conduct all necessary maintenance and make all necessary attempts 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.

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. No control device is associated with the engines of the Facility.

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. The Facility was sampled for laboratory analysis on January 10, 2018, and information provided that the wet gas contained <1 ppm hydrogen sulfide (non-detection), which would confirm that the gas stream is in compliance with the referenced special condition.

SUMMARY

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Based on observations made, and information provided and reviewed, it appears the facility is operating in general compliance with their permit.

NAME Shawn Gilbane

DATE 1/3/2019

SUPERVISOR SN