

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection**

N753171595

FACILITY: RIVERSIDE - LIFE OF BRILEY CPF		SRN / ID: N7531
LOCATION: T31N R2E SEC 22, BRILEY TWP		DISTRICT: Gaylord
CITY: BRILEY TWP		COUNTY: MONTMORENCY
CONTACT: Natalie Schrader , Compliance Coordinator		ACTIVITY DATE: 03/01/2024
STAFF: Caryn Owens	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: On-Site Inspection & Records Review		
RESOLVED COMPLAINTS:		

On Friday, March 1, 2024, Caryn Owens of the Department of Environment, Great Lakes, and Energy (EGLE) – Air Quality Division (AQD) conducted an on-site field inspection of Riverside Energy of Michigan, LLC – Life of Briley /Uncle Ray's Corner CPF (SRN: N7531) located at 13680 M-33 Highway in Briley Township, Montmorency County, Michigan. More specifically, the entrance of the site is located approximately 4 miles north of Atlanta, Michigan, and is located on the west side of M-33, approximately 1 mile south of Rouse Road in Briley Township.

The field inspection and records review were to determine compliance with permit to install (PTI) 237-05A. The site is currently a source that has opted out of being a major source of nitrogen oxides (NOx) and carbon monoxide (CO) emissions using operational and/or production controls to limit potential to emit (PTE) to be below the major source thresholds. The site is an area source for National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (40 CFR, Part 63, Subpart ZZZZ – RICE MACT), and NESHAP from Oil and Natural Gas Production facilities (40 CFR, Part 63, Subpart HH).

Evaluation Summary

The activities covered during this field inspection and records review appear to be in compliance with PTI 237-05A. No further actions are necessary at this time. Specific permit conditions that were reviewed are discussed below.

On-site Inspection:

AQD was unaccompanied during the field inspection. The weather conditions were sunny, with winds from the south-southwest at about 5-10 miles per hours, and 44 degrees Fahrenheit. Activities onsite are limited to separating the natural gas, oil, and water, then drying the gas through the glycol dehydrator which removes water from the natural gas stream, and then compresses the natural gas, to send down the pipeline and/or through the sales line. The facility consisted of one main building on the central portion of the site, that contained four separators, a glycol dehydrator, and the compressor engine. There was no tank battery at the site.

During the inspection, the compressor engine was a natural gas 1,265 horsepower (hp) Caterpillar 3516 LE, operating at 1,233 revolutions per minute, 203 degrees Fahrenheit, and 57 pounds per square inch (psi) of pressure. The daily work log at the facility was filled out correctly and listed the engine as serial number: DD-3060 D-1, CAT3516LE, and Unit #1050. The engine platform had GCS 1050 imprinted on it. There was a catalyst in the stack above the engine, and there appeared to be a former air to fuel ratio controller (AFRC), but the catalyst did not appear to be in operation and the screen to the AFRC was blank. The facility does not take control into account for their emissions. The engine stack was located on the western portion of the building and contained a muffler. The stack contained a muffler on the west side of the building and was approximately 36 feet above ground surface (ags), a heat shimmer was observed from the compressor engine stack, but no visible emissions were observed. Additionally, the glycol dehydrator had a steam plume coming off the stack, but the steam quickly dissipated, and no odors were present on site. The re-boiler stack to the glycol dehydrator was approximately 20 feet above ground surface. I noticed several small tanks on site (1,000 gallons or less): One, near the glycol dehydrator, that was on stilts and covered with a tarp. One metal tank outside on stilts in the western portion of the building by the engine stack. And inside the building contained two orange-painted tanks labeled used oil.

Records Reviewed

EUDEHY: This emission unit is for a glycol dehydration system processing gas from the Antrim zone. The requirements for EUDEHY were regarding the NESHAP from Oil and Natural Gas Production facilities (40 CFR, Part 63, Subpart HH). The State of Michigan does not have delegated authority of the area source NESHAP, and thus compliance with the federal requirements in accordance with the EUDEHY were not reviewed by the AQD at this time.

EUENGINE1: A 1265 hp Caterpillar 3516 LE natural gas fired reciprocating engine, with no control.

- **Emission Limits:** Emission limits were 45.4 tons of NOx per year based on a 12-month rolling time period and 33.4 tons of CO per year based on a 12-month rolling time period. Based on the records reviewed from February 2023 through January 2024, the highest emissions reported were 16.57 tons of NOx per 12-month rolling time period and 15.74 tons of CO per 12-month rolling time period, which were within the permitted emission limits.
- **Material Limits:** No Material Limits were applicable for EUENGINE1.
- **Process/Operational Restrictions:** A Malfunction Abatement Plan (MAP) had been submitted for the engine and was approved by District Staff October 22, 2021. The facility submitted maintenance records which indicated general maintenance such as: servicing for low suction, repairing leaks, relief valve testing, and service for high heat temperatures. Based on the records, the engine is generally serviced approximately one to six times per month. The records did not show maintenance concerns with the engine.
- **Design/Equipment Parameters:** As previously stated the engine does not use a control device, therefore there are no design and equipment parameters applicable with the site. The Condition in the PTI is the same Condition under Testing/Sampling, so please refer below for more information.
- **Testing/Sampling:** The facility uses engine specific emission factors to calculate the emissions for NOx and CO emissions. Performance testing has not been completed at this facility.
- **Monitoring/Recordkeeping:** The facility monitors the natural gas usage for EUENGINE1 on a continuous basis and records the monthly fuel use for the engine at the facility. The facility calculates records monthly and 12-month rolling time-period records for NOx and CO. The 12-month rolling time-period emissions are discussed above under emission limits. As previously stated, the engine is not equipped with an add-on control device.
- **Reporting:** The facility has not swapped out an engine at the facility since the previous inspection report. There are no Reporting requirements associated with EUENGINE1.
- **Stack/Vent Restrictions:** Based on visible observations during the field inspection, the stack of the engine appeared to be at least 36 feet above ground surface and appeared to be 16-inches in diameter.
- **Other Requirements:** Although not addressed in the PTI, the facility is subject to the NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR, Part 63, Subpart ZZZZ). Compliance with the federal requirements in accordance with the facility were not reviewed by the AQD at this time.

40 CFR, Part 60, 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.

FGFACILITY: Includes all source-wide activities at the facility including equipment covered by grand-fathered equipment and exempt equipment.

- **Emission Limits:** FGFACILITY is limited to 89 tons per 12-month rolling time period of NOx and 89 tons per 12-month rolling time period of CO. Based on the records reviewed from February 2023 through January 2024, the highest emissions reported were 17.19 tons per 12-month rolling time period for NOx and 15.89 tons per 12-month rolling time period for CO. The emissions are compliant with permitted limits.
- **Material Limits:** The facility shall only burn sweet gas at the facility. The facility processes natural gas from the Antrim formation. This field gas is not known to contain hydrogen sulfide (H2S) in the gas stream and is considered a sweet gas. Additionally, according to Riverside there is no H2S at the facility, and therefore within the permitted limits.
- **Process/Operational Restrictions:** No Process/Operational Restrictions are applicable to FGFACILITY conditions of the stationary source.
- **Design/Equipment Parameters:** No Design/Equipment Parameters are applicable to FGFACILITY conditions of the stationary source.
- **Testing/Sampling:** Sampling and testing for the sulfur content of the natural gas is only required upon request by AQD staff. The facility processes natural gas from the Antrim formation which does not have high levels of H2S, therefore AQD did not require a gas analysis at this time. According to the facility, they burn sweet gas only.
- **Monitoring/Recordkeeping:** The facility monitors the natural gas usage for EUENGINE1 and the process heater to EUDEHY on a continuous basis and records the monthly fuel use for the process equipment. The facility calculates monthly and 12-month rolling time-period records for NOx and CO. The records submitted were in a format acceptable to the AQD. The 12-month rolling time period emission calculations are reported above, under Emission Limits, and were within the permitted limits.
- **Reporting:** No Reporting requirements are applicable to FGFACILITY conditions of the stationary source.
- **Stack/Vent Restrictions:** No Stack parameters are applicable to FGFACILITY conditions of the stationary source.
- **Other Requirements:** No Other Requirements are applicable to FGFACILITY conditions of the stationary source.

NAME Camp Owens

DATE 5-9-24

SUPERVISOR Shane Nixon