

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

N781152287

FACILITY: Riverside Energy Michigan, LLC -- Central Lake 13		SRN / ID: N7811
LOCATION: SE 1/4 SEC 13 T31N R8W, CENTRAL LAKE		DISTRICT: Cadillac
CITY: CENTRAL LAKE		COUNTY: ANTRIM
CONTACT: Natalie Schrader,		ACTIVITY DATE: 01/31/2020
STAFF: Jodi Lindgren	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT:		
RESOLVED COMPLAINTS:		

**FACILITY DESCRIPTION**

On Friday November 1 2019, Jodi Lindgren of the Department of Environmental, Great Lakes, and Energy (EGLE) – Air Quality Division (AQD) conducted an unannounced field inspection of Riverside Energy Michigan, LLC (Riverside) – Central Lake 13 CPF Site located on Muckle Road approximately 1.6 miles due North of the intersection of West Old State Road and Muckle Road in section 13, T31N-R8W of Central Lake Township, Antrim County, Michigan, 49622. The facility was not operating and unmanned at the time of inspection.

The Central Lake 13 CPF is an opt-out facility with PTI 181-07 issued on August 2, 2017. The facility is subject to 40 CFR Part 63 Subpart ZZZZ and 40 CFR Part 63 Subpart HH which EGLE-AQD is not delegated to enforce. The facility consists of a fixed roof 400-barrel storage tank, an iron sponge system for hydrogen sulfide treatment, and a compressor building, which houses a compressor, a compressor engine, a process heater, and a glycol dehydrator. The glycol dehydrator, process heater, and fixed roof tank are reported as exempt from Rule 201, the requirement to obtain a permit to install.

**SCHEDULED INSPECTION**

**A. EUENGINE1** – One 830 hp CAT 399 TA rich burn natural gas fired reciprocating engine with no emission control. The engine serial number is 35B05653 with a rebuild date of April 27, 2010 and the unit number is 190108. Records kept on site indicated that the engine had not run since August 13, 2019.

1. Emission Limits – PTI 181-07 established a NOx limit of 88.3 tons per year (tpy) calculated at the end of each month using a 12-month rolling time period. Records provided by Riverside indicate 30.05 tpy of NOx emissions calculated for a 12-month rolling time period of October 2018 to September 2019. These records indicate compliance with the emission limits established in PTI 181-07 (records are attached).

2. Material Limits – There are no material limits associated with this emission unit; therefore, this section is not applicable.

3. Process/Operational Restrictions – PTI 181-07 requires an AQD approved preventative maintenance/malfunction abatement plan (PM/MAP). An AQD approval letter dated December 15, 2017 was issued for the PM/MAP dated November 8, 2017. The PM/MAP dictates the engine shall receive routine monitoring and maintenance including, daily performance monitoring, basic service checks every 60 to 90 days, motor oil and filter changes every 3,000 operation hours, and an engine rebuild or replacement every 85,000 operation hours. Monitoring records provided by Riverside demonstrate daily monitoring of the various system parameters necessary to ensure the engine is functioning within safe operational constraints. A provided maintenance log indicates the performance of routine maintenance including three basic service checks and one engine oil and filter changes in the time period of October 2018 to September 2019. PTI 181-07 restricts the natural gas usage by EUENGINE1 to 30,609 MMBTU per year. A provided fuel usage report demonstrates compliance with 10,310 MMBTU of natural gas used by EUENGINE1 for the time period of October 2018 to September 2019. These records indicate compliance with the AQD approved PM/MAP and PTI 181-07 (records are attached).

4. Equipment Parameters – PTI 181-07 dictates proper installation, maintenance, and operation of an engine add-on control device. EUENGINE1 is not equipped with an add-on control device thus compliant with PTI 181-07.

5. Testing – PTI 181-07 dictates that the AQD District Supervisor may request testing to verify NOx emission factor. No testing has been requested by the AQD District Supervisor during the time constraints of this compliance evaluation.

6. Monitoring – PTI 181-07 mandates natural gas usage for EUENGINE1 be monitored on a continuous

basis. Riverside provided AQD staff with a fuel usage log for the time period of October 2018 to September 2019 indicating compliance with PTI 181-07.

7. Recordkeeping/Reporting/notification – PTI 181-07 establishes recordkeeping for all emissions calculations, natural gas usage for EUENGINE1, and monitoring and maintenance activities logs. The engine covered by PTI 181-07 has not been replaced.

8. Stack/Vent Restrictions – PTI 181-07 requires a stack with a maximum diameter of eight inches and a minimum height above ground level of 20 feet. The engine exhaust stack appeared to meet these requirements during the inspection.

9. Other Requirements – There are no other requirements associated with the continued compliance of EUENGINE1; therefore, this section is not applicable.

**B. FGFACILITY** – One 400 hp CAT G3408 TA rich burn natural gas fired reciprocating engine equipped with no emission control and Rule 201 exempt process heater.

1. Emission Limits – PTI 76-10 established a NOx limit of 89.9 tons per year (tpy) calculated at the end of each month using a 12-month rolling time period. Records provided by Riverside indicate 30.59 tpy of NOx emissions calculated for a 12-month rolling time period of October 2018 to September 2019. These records indicate compliance with the emission limits established in PTI 76-10 (records are attached).

2. Material Limits – PTI 181-07 requires only sweet natural gas may be burned. Riverside reported only sweet natural gas from the Antrim Shale Formation was processed at the facility indicating compliance with the restriction defined in PTI 181-07.

3. Process/Operational Restrictions – There are no process nor operational restrictions associated with FGFACILITY; therefore, this section is not applicable.

4. Equipment Parameters – There are no equipment parameters associated with FGFACILITY; therefore, this section is not applicable.

5. Testing – There are no testing requirements associated with FGFACILITY; therefore, this section is not applicable.

6. Monitoring – There are no monitoring obligations associated with FGFACILITY; therefore, this section is not applicable.

7. Recordkeeping/Reporting/notification – PTI 181-07 establishes recordkeeping for all emissions calculations. Riverside provided documentation for the required calculations denoting compliance with PTI 181-07.

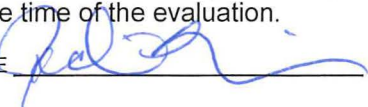
8. Stack/Vent Restrictions – There are no stack nor vent restrictions associated with FGFACILITY; therefore, this section is not applicable.

9. Other Requirements – There are no other requirements associated with the continued compliance of EUENGINE; therefore, this section is not applicable.

### EVALUATION SUMMARY

Conclusion – Based upon the Full Compliance Evaluation, it appears the source was compliant with PTI 181-07 at the time of the evaluation.

NAME



DATE

1/31/2020

SUPERVISOR

