

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

N709058227

<b>FACILITY:</b> RIVERSIDE - JORDAN 9 CPF		<b>SRN / ID:</b> N7090
<b>LOCATION:</b> SECTION 9, EAST JORDAN		<b>DISTRICT:</b> Cadillac
<b>CITY:</b> EAST JORDAN		<b>COUNTY:</b> ANTRIM
<b>CONTACT:</b> Natalie Schrader , Environmental Technician		<b>ACTIVITY DATE:</b> 12/01/2020
<b>STAFF:</b> Jodi Lindgren	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> SM OPT OUT
<b>SUBJECT:</b>		
<b>RESOLVED COMPLAINTS:</b>		

### FACILITY DESCRIPTION

On Tuesday, December 1 2020, 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) – Jordan 9 CPF (N7090) located on an access road 0.4 miles south of M-32 and approximately 0.25 miles west of the intersection of M-32 and St. Johns Road in section 9, T31N-R6W, Jordan Township, Antrim County, Michigan, 49727. The facility was unmanned at the time of inspection.

The Jordan 9 CPF is an opt-out facility with PTI 9-10 issued on February 3, 2010. The facility is subject to 40 CFR Part 63 Subpart HH which the EGLE is not delegated to enforce. The facility has one compressor building that houses a compressor, compressor engine, glycol dehydrator (dehy), and dehy flash tank.

### SCHEDULED INSPECTION

A. EUDEHY1 – Glycol dehydration system processing natural gas from the Antrim zone. The dehy is exempt from R 336.1201(1) as it meets the requirements of exemption R 336.1288(2)(b)(ii) because it processes only Antrim natural gas. The Dehy is subject to 40 CFR Part 63, Subpart HH (NESHAP HH), which the State of Michigan is not delegated to enforce.

1. Emission Limits – There are no emission limits established in PTI 9-10 associated with this emission unit; therefore, this section is not applicable.
2. Material Limits – There are no material limits established in PTI 9-10. However, the dehy is exempt from NESHAP HH with documentation of an actual annual average flow rate of natural gas less than 85,000 cubic meters per day or 3 MMCF/day. Records provided by Riverside indicate the greatest total monthly throughput was 0.8 MMCF during the inspection time period. The records also included an actual annual average flow rate of 0.026 MMCF/day.
3. Process/Operational Restrictions – There are no process or operational restrictions associated with this emission unit; therefore, this section is not applicable.
4. Design/Equipment Parameters – There are no design or equipment parameters associated with this emission unit; therefore, this section is not applicable.
5. Testing/Sampling – There are no testing or sampling requirements associated with this emission unit; therefore, this section is not applicable.

**6. Monitoring/Recordkeeping** – monitoring and recordkeeping to document actual annual average flow rate of natural gas to satisfy the NESHAP HH exemption criteria in 40 CFR 63.764(e) (1)(i). Riverside provided documentation to satisfy this exemption.

**7. Reporting** – Recordkeeping requirements pursuant PTI 9-10 were provided to AQD staff upon request (see attached).

**8. Stack/Vent Restrictions** – There are no stack or vent restrictions associated with this emission unit; therefore, this section is not applicable.

**9. Other Requirements** – There are no other requirements associated with this emission unit; therefore, this section is not applicable.

**B. EUENGINE1** – One natural gas fired reciprocating engine that is a 1265 hp CAT G3516 lean burn engine with catalytic emission control. The engine serial number is 4EK04089 with a rebuild date of February 20, 2017 and unit number 1057. At the time of the inspection, the engine was running with a RPM of 1187, oil temperature of 189°F, oil pressure of 73 psi, coolant system temperature of 190°F, a compressor oil temperature of 185°F, a compressor oil pressure of 72 psi, and 30,122 hours of operation.. This was consistent with the records kept on site which indicated that on December 1, 2020, the engine was running with an RPM of 1179, engine oil pressure 74 psi, coolant system temperature of 188°F, a compressor oil temperature of 180°F, and a compressor oil pressure of 71 psi.

**1. Emission Limits** – For EUENGINE1, PTI 9-10 established a NOx limit of 60 tons per year (tpy) and a CO limit of 30 tpy calculated at the end of each month using a 12-month rolling time period. Records provided by Riverside indicate 11.77 tpy of NOx emissions and 11.18 tpy CO emissions calculated without control for a 12-month rolling time period of November 2019 to October 2020. These records indicate compliance with the emission limits established in PTI 9-10.

**2. Material Limits** – PTI 9-10 prohibits the burning of sour natural gas, which is defined as more than one grain of hydrogen sulfide or more than ten grains of total sulfur per 100 standard cubic feet. Riverside does not burn sour gas.

**3. Process/Operational Restrictions** – PTI 9-10 requires an AQD approve preventative maintenance/malfunction abatement plan (PM/MAP). A PM/MAP was submitted and the maintenance records demonstrate compliance with the plan.

**4. Design/Equipment Parameters** – PTI 9-10 dictates the installation, calibration, maintenance, and operation of a monitoring device to measure natural gas usage of EUENGINE1 on a continuous basis. Riverside demonstrated compliance by provided AQD staff with a calibration and maintenance record as well as a natural gas usage report for the time period November 2019 to October 2020.

**5. Testing/Sampling** – PTI 9-10 dictates that the AQD District Supervisor may request testing for NOx and CO emission verification. No testing has been requested by the AQD Supervisor during the time constraints of this compliance evaluation.

**6. Monitoring/Recordkeeping** – Riverside demonstrated compliance with monitoring and recordkeeping requirements of PTI 9-10 to document natural gas usage and calculate NOx and CO

emission for EUENGINE1. A maintenance log conducted according to the approved PM/MAP is mandated in the PTI 9-10 as well. Riverside provided AQD staff the required documentation upon request.

7. Reporting – Recordkeeping requirements pursuant PTI 9-10 were provided to AQD staff upon request.

8. Stack/Vent Restrictions – PTI 9-10 requires EUENGINE1 to have a stack with a maximum diameter of ten inches and a minimum height above ground level of 41 feet. The engine exhaust stack appeared to meet these requirements during the inspection.

9. Other Requirements – There are no other requirements associated with this emission unit; therefore, this section is not applicable.

#### EVALUATION SUMMARY

Conclusion – Based upon the Full Compliance Evaluation, it appears the source was in compliance with PTI 9-10 at the time of the evaluation.

NAME \_\_\_\_\_

DATE \_\_\_\_\_

SUPERVISOR \_\_\_\_\_