

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

N613352320

FACILITY: RIVERSIDE - CHESSPLAY		SRN / ID: N6133
LOCATION: 2445 CEDAR RIVER RD., BELLAIRE		DISTRICT: Cadillac
CITY: BELLAIRE		COUNTY: ANTRIM
CONTACT: Natalie Schrader ,		ACTIVITY DATE: 02/04/2020
STAFF: Jodi Lindgren	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Full compliance evaluation		
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) – Chessplay CPF Site located at the end of Cedar River Road approximately 0.5 miles due North of the intersection of West Eddy School Road and Cedar River Road in section 17, T30N-R6W of Chestonia Township, Antrim County, Michigan, 49659. The facility was operating and unmanned at the time of inspection.

The Chessplay CPF is an opt-out facility with PTI 691-96 issued on November 14, 1996. 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 compressor building housing a compressor, a compressor engine, phase separators, and a glycol dehydrator with associated process heater and vapor recovery unit. 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. COMPRESSOR ENGINE** – One 1085 hp CAT 3516 TA lean burn natural gas fired reciprocating engine with no emission control. The engine serial number is 4EK00711 with a rebuild date of August 28, 2017 the unit number is 860, and the skid number is 190162. At the time of the inspection, the engine oil temperature of 230° F, engine oil pressure of 59 psi, coolant system temperature of 129°F, a compressor oil temperature of 175°F, a compressor oil pressure of 59 psi, and 18,706.1 hours of operation. Riverside's September and November daily records could not be located on site. Records provided by Riverside for September 30th demonstrate consistency with an engine oil temperature of 186°F, engine oil pressure of 60 psi, coolant system temperature of 143°F, a compressor oil temperature of 187°F, and a compressor oil pressure of 58 psi.

1. Emission Limits – PTI 691-96 established facility wide emission limits. Emission limits for Individual emission units were not established. However, records provided by Riverside does provide emission calculations for the engine. The records indicate emissions for the engine total 10.43 tpy of CO, 0.23 tpy of VOC, and 11.58 tpy of NOx calculated for a 12-month rolling time period of October 2018 to September 2019. (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 – A preventative maintenance/malfunction abatement plan (PM/MAP) was submitted and approved by AQD. An AQD approval letter dated December 15, 2017 was issued for the PM/MAP dated November 13, 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 nine basic service checks and one engine oil and filter changes in the time period of October 2018 to September 2019. At the time of the inspection, the engine did not require a rebuild or replacement having 18,706.1 operation hours. These records indicate compliance with the AQD approved PM/MAP (records are attached).

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

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

applicable.

6. Monitoring – PTI 691-96 mandates natural gas usage for all on-site equipment be monitored on a continuous basis. Riverside provided AQD staff with an engine fuel usage log for the time period of October 2018 to September 2019. The provided documentation reports monthly fuel usage, which was 3.168 MMCF in September 2019, and a total usage of 38.835 MMCF for a 12-month rolling time period of October 2018 to September 2019 indicating compliance with PTI 691-96. (records are attached)

7. Recordkeeping/Reporting/notification – There are no recordkeeping, reporting, nor notification requirements associated with this emission unit; therefore, this section is not applicable.

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

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

**B. GLYCOL DEHYDRATOR** – Glycol dehydration system (dehy) processing natural gas from the Antrim zone equipped with phase separators and a vapor recovery unit. The dehy is identified as exempt from R 336.1201(1) by meeting the requirements of exemption R 336.1288(2)(b)(ii), which limits processing to 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 – PTI 691-96 established facility wide emission limits. Emission limits for Individual emission units were not established. However, records provided by Riverside does provide emission calculations for the dehy. The records indicate emissions for the dehy total 0.10 tpy of CO, 0.01 tpy of VOC, and 0.39 tpy of NOx calculated for a 12-month rolling time period of October 2018 to September 2019. (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 – There are no process or operational restrictions associated with this emission unit; therefore, this section is not applicable.

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

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

6. Monitoring – PTI 691-96 mandates natural gas usage for all on-site equipment be monitored on a continuous basis. Riverside provided AQD staff with a dehy fuel usage log for the time period of October 2018 to September 2019. The provided documentation reports monthly fuel usage, which was 0.459 MMCF in September 2019, and a total usage of 5.585 MMCF for a 12-month rolling time period of October 2018 to September 2019 indicating compliance with PTI 691-96. (records are attached)

7. Recordkeeping/Reporting/notification – There are no recordkeeping, reporting, nor notification requirements associated with this emission unit; therefore, this section is not applicable.

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

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

**C. FACILITY** – One 1085 hp CAT 3516 TA lean burn natural gas fired reciprocating engine with no emission control and a Glycol dehydration system (dehy) processing natural gas from the Antrim zone equipped with phase separators and a vapor recovery unit.

1. Emission Limits – PTI 961-96 established a CO emission limit of 89.9 tons per year (tpy), a VOC emission limit of 89.9 tpy, NOx emission limit of 89.9 tpy, and HAP emission limit of 9 tpy calculated at the end of each month using a 12-month rolling time period. Records provided by Riverside indicate emissions for the FACILITY total 10.52 tpy of CO, 0.23 tpy of VOC, 11.97 tpy of NOx, and 0 tpy of HAPs calculated for a 12-month rolling time period of October 2018 to September 2019. The calculations indicating 0 HAPS appear to be correct based on the emission factor for an Antrim natural gas dehy provided in Appendix A of PTI 691-96. These records

indicate compliance with the emission limits established in PTI 961-96 (records are attached).

2. Material Limits – PTI 691-96 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 691-96.

3. Process/Operational Restrictions – PTI 691-96 mandates a log of all significant maintenance activities and repairs at the facility be kept on file. Riverside provided records indicate compliance with the maintenance and repair requirements of PTI 691-96 (records are attached).

4. Equipment Parameters – PTI 691-96 dictates proper installation, maintenance, and operation of all add-on control devices. The facility is not equipped with an add-on control device thus compliant with PTI 691-96.

5. Testing – PTI 691-96 dictates that the AQD District Supervisor may request testing to verify CO, VOC, NOx, or HAP emission factor. No testing has been requested by the AQD District Supervisor during the time constraints of this compliance evaluation.

6. Monitoring – PTI 691-96 mandates that natural gas usage and natural gas production for at the facility be monitored, recorded, and maintained on a continuous basis. Riverside provided AQD staff with a fuel usage log and facility production data for the time period of October 2018 to September 2019. The provided documentation reports a monthly facility fuel usage, which was 3.627 MMCF in September 2019, and a total facility fuel usage of 44.42 MMCF for a 12-month rolling time period of October 2018 to September 2019 indicating compliance with PTI 691-96. (records are attached)

7. Recordkeeping/Reporting/notification – PTI 691-96 establishes recordkeeping for all emissions calculations, facility natural gas usage, and monitoring and maintenance activities logs. Riverside provided documentation for the required calculations denoting compliance with PTI 691-96.

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

9. Other Requirements – PTI 691-96 required an applicability determination of 40 CFR Part 60 Subpart KKK (NSPS KKK) be completed and compliance with the regulation if applicable. It was determined that the facility did not meet the definition of a natural gas processing plant and therefore not subject to NSPS KKK.

### **EVALUATION SUMMARY**

Conclusion – Based upon the Full Compliance Evaluation, it appears the source was compliant with PTI 691-96 at the time of the evaluation.

NAME 

DATE 2/4/2020

SUPERVISOR 