

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

P001568272

FACILITY: RIVERSIDE - CHIEF CREEK CPF		SRN / ID: P0015
LOCATION: T22N R15W SEC 10 NE SW NW, MANISTEE		DISTRICT: Cadillac
CITY: MANISTEE		COUNTY: MANISTEE
CONTACT: Natalie Schrader , SR. Production assistant		ACTIVITY DATE: 07/03/2023
STAFF: Jodi Lindgren	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Report of on-site inspection and record review as part of the FY23 FCE		
RESOLVED COMPLAINTS:		

FACILITY DESCRIPTION

On Monday, July 3, 2023, 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) – Chief Creek CPF (P0015) located approximately 4.8 miles west-northwest of Brethren on the west side of Kenny Road, 0.25 miles north of Coates Road and 0.75 miles south of Kerry Road, in section 10, T22N-R15W, Brown Township, Manistee County, Michigan, 49660. The facility was unmanned at the time of inspection.

The Chief Creek CPF is an opt-out facility with PTI 283-09 issued on January 8, 2010. The facility has one compressor building that houses one compressor, one compressor engine, and one glycol dehydration system (dehy), which includes the dehy burner, pump, and flash tank.

SCHEDULED INSPECTION

A. EUDEHY – Glycol dehydration system (dehy) processing natural gas from the Antrim zone. The dehy will remain exempt from R 336.1201(1) permitting requirements if the requirements of exemption

R 336.1288(2)(b)(ii) continue to be met by only processing Antrim natural gas. The dehy is subject to 40 CFR Part 63, Subpart HH (NESHAP HH). Records for emissions and fuel usage of the dehy were available to demonstrate compliance with NESHAP HH.

1. Emission Limits – There are no emission limits established in PTI 283-09 associated with this emission unit; therefore, this section is not applicable.
2. Material Limits – There are no material limits established in PTI 283-09 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 beyond compliance with NESHAP HH regulations. 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 actual annual average flow rate of natural gas is 0.7895 MMCF/day.
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 – PTI 283-09 imposes 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 283-09 were provided to AQD staff upon request. Riverside appears to be compliant with the notification requirements of NESHAP HH.

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. EUENGINE – One natural gas fired Caterpillar reciprocating engine equipped with a catalytic control and air/fuel ratio controller (AFRC). EUENGINE is a 625 hp CAT 398 turbo aspirated engine with the unit number of 878. The engine serial number is 73B00631 and a manufacture/rebuild date of August 22, 2013. At the time of the inspection, the engine was running with an RPM of 1211, an engine oil pressure of 34 psi, coolant system temperature of 218°F, a compressor oil pressure of 58 psi, and 25,192 hours of operation. This was consistent with the records kept on site which indicated that earlier on the same day, EUENGINE was running with an RPM of 1212, an engine oil pressure of 36 psi, coolant system temperature of 200°F, and a compressor oil pressure of 59 psi.

1. Emission Limits – For EUENGINE, PTI 283-09 established a NOx limit of 10 tons per year (tpy) and a CO limit of 20 tpy calculated at the end of each month using a 12-month rolling time period. Records provided by Riverside indicate 0.64 tpy of NOx emissions and 5.76 tpy CO emissions calculated for a 12-month rolling time period of May 2022 to April 2023. These records indicate compliance with the emission limits established in PTI 283-09.

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

3. Process/Operational Restrictions – PTI 283-09 requires an AQD approve preventative maintenance/malfunction abatement plan (PM/MAP). A PM/MAP was submitted on July 8, 2010 and approved by AQD. The PTI prohibits the operation of any engine equipped with an add-on control device for more than 200 hours per year without that control device consistent with the AQD approved PM/MAP. EUENGINE is equipped with catalytic add-on control device which ran 100% of the time. Riverside provided monitoring and maintenance records for the EUENGINE and the associate catalytic control device. The maintenance records provided by Riverside indicate a full maintenance service and inspection of EUENGINE and catalytic control device on April 18, 2022 and January 19, 2023. Additional maintenance was conducted on EUENGINE as needed which was determined by their monitoring program. Record of monthly operational monitoring and inspection of the catalytic control device as well as a third-party emission testing report from April 21, 2022 was provided.

4. Design/Equipment Parameters – PTI 283-09 dictates proper installation, maintenance, and operation of an engine add-on control device. EUENGINE is equipped with catalytic add-on control devices for which Riverside provided monitoring and maintenance records thus compliant

with PTI 283-09. The PTI requires the installation, calibration, maintenance, and operation of a monitoring device to measure natural gas usage of EUENGINE 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 May 2022 to April 2023. The provided documentation reported the monthly fuel usage of EUENGINE was 1.945 MMCF in April 2023 with a total usage of 27.115 MMCF for the 12-month rolling time period of May 2022 to April 2023. The records indicate the natural gas usage monitoring devices for EUENGINE was tested and calibrated on April 14, 2022.

5. Testing/Sampling – PTI 283-09 dictates that the AQD District Supervisor may request testing NOx, CO, acrolein, and formaldehyde emission verification. No testing has been requested by the AQD Supervisor during the time constraints of this compliance evaluation. One third-party control efficiency test for NOx and CO was completed on April 14, 2022 and the report was provided to AQD.

6. Monitoring/Recordkeeping – Riverside demonstrated compliance with monitoring and recordkeeping requirements of PTI 283-09 to document natural gas usage and calculate NOx and CO emission for EUENGINE. A maintenance log conducted according to the approved PM/MAP is mandated in the PTI 283-09 as well. Riverside provided AQD staff the required documentation upon request.

7. Reporting – Recordkeeping requirements pursuant PTI 283-09 were provided to AQD staff upon request. Neither engine included in EUENGINE have be replaced since the last inspection in 2019.

8. Stack/Vent Restrictions – PTI 283-09 requires EUENGINE and EUENGINE to have stacks with a maximum diameter of twelve inches and a minimum height above ground level of 37 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.

NAME 

DATE 11-14-23

SUPERVISOR 