

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

N612069924

FACILITY: RIVERSIDE - PEGGY FLEMING CPF		SRN / ID: N6120
LOCATION: SEC 5 T31N R4W NW, SW, SW, ELMIRA TWP		DISTRICT: Gaylord
CITY: ELMIRA TWP		COUNTY: OTSEGO
CONTACT: Natalie Schrader , Environmental Specialist		ACTIVITY DATE: 11/07/2023
STAFF: Sharon LeBlanc	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY 2024 FCE Inspection of Peggy Fleming CPF. sgl		
RESOLVED COMPLAINTS:		

On November 7, 2023, AQD District Staff mobilized to the Riverside Energy Michigan, LLC (Riverside)CP Michigan LLC (AKA Riverside) Peggy Fleming Central Processing Facility (CPF) (N6120), located in the NW/4, SW/4 of SW/4, Section 5, T31N, R4W, Elmira Township, Otsego County, Michigan to conduct an unannounced, scheduled compliance inspection of the facility. The referenced facility presently operates under Permit to Install (PTI) No. 289-01A. A records request was made electronically on September 9, 2023. Records were received electronically on September 12, 2023.

The previous site inspection for the Facility were conducted on May 20, 2020. No compliance issues were documented at the time of the inspection.

FACILITY

The referenced facility is one of a cluster of three CPFs located within a gated and fenced location at 5157 Webster Road, Elmira, Michigan. The other two Facilities at the referenced location include: Warner 2 CPF, and Elmira Thrive West. Some discussion at the District level regarding combining all three under a single SRN and permit as all three are presently operated by Riverside has occurred. But no merge appears to have occurred to date.

District records identify the two (Warner 2 CPF, and Elmira Thrive West) as sharing State Registration Number (SRN N7022) and being operated by Riverside. They also identify both as operating exempt equipment. At the time of the November 7, 2023, site visit it was noted that all three buildings housed a compressor. Though the compressor at Thrive West appears to have been permanently shut down and a void for the permit requested on February 14, 2018.

To get to the site, travel west on M-32 from the Gaylord District Office to the intersection with Camp Ten Road. At the intersection turn north and travel to Theisen Road and make a left. Travel west on Theisen Road until it intersects with Webster Road. Travel north on Webster Road for approximately 1 mile, the Facility is on the east (right hand) side of the road. Note that the sign is not at the beginning of the drive, but before the gate down the entrance drive.

A review of readily accessible aerials indicates that the Facility has been in operation as early as 1994, at which time both the Peggy Fleming and Thrive West are present onsite. 1994 aerials indicate the presence of the two Above ground Storage Tanks (ASTs)(exempt under Rule 284(2)(e)) and one compressor building each for the Peggy Fleming and Thrive West. The Warner 2 does not appear on readily available aerials until after 2006 and before 2010.

The Peggy Fleming CPF is reported to service Antrim Formation wells in the area. Activities onsite consist of dehydration and compression of gas prior to pipeline transport. The Facility does not extract Natural Gas (NG) liquids (NGLs) from field gas and/or fractionate mixed NGLs to NG products. Incoming wet gas stream is treated by iron sponge to address H₂S concentrations in the gas stream.

Permitted equipment includes EUDEHY, EUENGINE, FGMETHANOL and FGFACILITY. Of the referenced EUs and FGs, no permit conditions exist for EUDEHY (exempt from 201 permitting per Rule 282(b)(i)) or FGMETHANOL. Two 400-bbl ASTs (exempt from 201 permitting per Rule 284(h)) onsite are labeled non-potable water – Industrial waste.

Permitted wells onsite included:

Well Permit No.	Well ID
43279	St Elmira D1-5

Weather conditions at the time of the site visit included overcast skies, winds of 5-10 mph from the N and temperature of approximately 34 degrees Fahrenheit. Stack emissions were limited to heat waves off the compressor stack.

REGULATORY

Permitting -The referenced facility operates under PTI No. 289-01A, which was issued to Quicksilver Resources Inc. Permits associated with the site are summarized below:

Permit No.	Issuance Date	Void Date	Issued for	Issued To*
678-96	11/13/1996	10/12/2001	Elmira Thrive-Peggy Fleming	Terra Energy LTD
289-01	10/12/2001	4/27/2006	Split of two adjacent operations	Terra Energy LTD
289-01A	4/27/2006	NA	Engine and dehy for Peggy Fleming	Quicksilver Resources Inc.

*Property ownership/operation has changed hands since issuance of PTI 289-01A. The present operator is Riverside.

Though not identified in the permit, the facility may be subject to Federal Regulation. No high-level citations of NSPS or MACT subparts have been identified in the PTI. Subparts frequently associated with oil and gas facilities are identified

below. Note however, that compliance with and applicability of these subparts has not been determined as part of this inspection.

Federal Regulations - The referenced facility that process or store petroleum liquids may be subject to one or more of the following 40 CFR Part 60 (New Source Performance Standards AKA NSPS) Subparts;

- K, Ka or Kb (Storage vessels for Petroleum Liquids);
- KKK (Equipment Leaks of VOC from onshore NG Processing Plants);
- VV (Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry);

NSPS Subpart OOOO and OOOOa through OOOOc performance standards for Crude Oil and Natural Gas Facilities affect both new and existing Facilities. Applicability of these regulations may result in Leak Detection and Repair (LDAR) activities being required onsite.

In addition, NSPS Subparts IIII or JJJJ may apply to Facilities with new compression ignition or spark ignition internal combustion engines onsite.

With respect to 40 CFR Part 63 (Maximum Achievable Control Technology Standards) the following Subparts may apply:

- Subpart HH (HAPS from Oil and NG Production Facilities)
- Subpart ZZZZ (RICE)
- Subpart DDDDD (Industrial, Commercial and Institutional Boilers and Process Heaters) (AKA Boiler MACT).

With respect to the applicability of 40 CFR Subpart ZZZZ (AKA the RICE MACT), EUENGINE is believed to be subject to the referenced subpart. Requirements under the subpart for compressor engines would be anticipated to include regular maintenance activities. Riverside customarily incorporates the subpart requirements into the MAP for the Facility. Though delegated authority of this subpart, no determination of compliance has been made. Compliance with the MAP for the Facility may indicate compliance with the subpart.

With respect to Subpart HH, the affected unit (glycol dehydration unit) is an area source. When brought back online, the unit/Facility may not be subject to Subpart HH if they were below throughput or benzene emission thresholds. The facility reports that it is not subject to the subpart because it's average throughput is less than 85K cubic meters/day (3 MMscf/day).

Subpart DDDDD has been determined by EPA to be applicable to dehy reboilers in certain situations.

EQUIPMENT

The November 7, 2023, site visit identified 1 compressor engine with catalyst (EUENGINE) and one glycol dehydrator (EUDEHY). Review of District Files indicates

that the following compressor engines are of record for the site and are part of FG ENGINES:

ENGINE ID	ENGINE TYPE	INSTALLATION DATE	REMOVAL DATE	COMMENT
EUENGINE 791 Sn 35B00490	Unit CAT G399 TA LCR 830 HP With Catalyst	Jan. 4, 1993	NA	Skid GCS 791

Riverside reports that the at the time they acquired the Facility (2019) that the engine was shut-in, and not restarted again until September 21, 2021.

Operational parameters documented at the time of the November 7, 2023; site inspection included:

Engine	RPMS	Catalyst Temp In	Catalyst Temp Out	Oil Pressure
Unit 791	1105	1056	1050	60

COMPLIANCE

At the time of the November 7, 2023, site visit, no visible emissions were noted to be coming from onsite stacks. Only heat shimmers were noted from exhaust stacks onsite.

MAERS- Annual reporting of emissions is conducted by the Facility, the most recent report for the calendar year 2022, was submitted on February 8, 2023. The submittal was found to be complete and timely.

EUENGINE- The referenced EU included at the time of permitting consisted of one NG-fired engine. The referenced EU is equipped with a catalyst. No material limits are provided for this EU.

Emission Limits - associated with EUENGINE include 12-month rolling NOx (SC 1.1a) and Co (SC 1.1b) limits. Emissions for RICE associated with the Facility are calculated monthly using emission factors from Manufacturer Spec sheets (SC 1.11 and 1.12) and Appendix A when available and are based on NG usage documented (SC 1.10). The referenced limits and emissions reported for 2022 and 2023 to date are summarized below:

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12-month period ending	NOx Emissions (TPY)	CO Emissions (TPY)
Dec 31, 2022	7.29	0.36
July 31, 2023	6.05	0.36
Limit	22.9 (SC I.1a)	16.3 (SC I.1b)

Process/Operational Limits – No later than 60 days after the issuance of Permit 289-01A the permittee is required to submit for review and approval a Preventative Maintenance/Malfunction Abatement Plan (PM/MAP). The latest version of the MAP was submitted on August 31, 2022, and was approved on September 8, 2022. A previous version had been submitted on April 4, 2007. (SC 1.2)

A review of maintenance logs provided by Riverside indicated that in addition to as needed maintenance activities, EUENGINE is part of a regularly scheduled service activities on a quarterly basis. Daily operational logs by Riverside operators and Contractor log sheets indicate that operational parameters for both EUENGINE and it's catalyst are monitored per the MAP.

Catalyst maintenance and testing activities conducted for the calendar year 2022 and 2023 to date included the following:

Activity Date	Activity Completed
10/14/2021	Catalyst Testing >90% DE for NOx and CO
11/1/2022	Annual Catalyst Inspection-Cleaning
1/3-1/4/2023	Catalyst inspection, element replacement and retesting >91% Nox DE, 88.6% CO DE
7/25 & 28/2023	Installed new element and testing.

As EUENGINE is equipped with an operational add-on control device(catalyst) the following special conditions are applicable at this time:

- Operational limit of 200 hours per year for engine without it's control device. (SC I.3)
- Proper installation, operation and maintenance of the add-on control device (SC 1.4)

- Documentation of the hours of engine operation without it's control device (SC 1.9)

Records provided indicated that EUENGINE did not operate without catalyst for the 2022 and 2023 to date.

Testing Activities – Under the present permit verification of NOx and CO emissions are required upon request of the AQD District Supervisor. (SC 1.5) District files contain no copies of written requests for verification testing, and the permit condition not applicable at the time of report preparation.

Monitoring/Recordkeeping Requirements–Permit requirements for monitoring and recordkeeping include the following:

- Completion of all required calculations by the last day of the calendar month for the month prior and made available to AQD staff upon request, (SC I.7)
- Monitor and record NG usage for EUENGINE on a continuous basis (SC I.6 and I.10)
- Maintain a log of all maintenance activities conducted according to the PM/MAP (SC I.8) and
- Monthly and 12-month rolling time period NOx and CO emission calculation records for EUENGINE as required under SC I.11 and SC I.12, respectively.

Records provided by the Facility were sufficient to indicate compliance with the above referenced permit conditions. These records with respect to emission calculations and NG usage are summarized on a spreadsheet generated monthly, which summarizes all the required information, as well as equipment descriptions and emission factor sources.

With respect to maintenance activities however, as previously noted, the written field documentation of activities completed was sufficient to verify the extent of maintenance activities being conducted for 2022 and 2023 to date. Based on the frequency of the visits, it would appear that the maintenance activities with respect to the engines as required by permit are being conducted as required.

Natural gas usage for EUENGINE for 2022 and 2023 to date are summarized below:

12-month period ending	NG Usage (MMcf/12-month rolling)
Dec. 30, 2022	27.698
July 31, 2023	33.601
Limit	NA

Stack/Vent - Permit 289-01A (SC I.13) limits the stack heights at the time of the site inspection were estimated based on building height to be approximately 2X the building height, or approximately 30 ft bls, and in compliance with SC 1.13a.

FGFACILITY

With respect to FGFACILITY, only the following conditions apply.

Material Limits – FGFACILITY is allowed to burn only sweet natural gas (SC 2.1). Sour gas being defined as gas concentrations of >1 grain H₂S or 10 grains of total sulfur per 100 cubic feet. Verification of H₂S or total sulfur content may be required by request of AQD District Supervisor (SC 2.2). As previously noted, the incoming gas stream is treated by an iron sponge. The post sponge concentrations as documented by the Facility indicated H₂S concentrations below 1 grain of H₂S on multiple events on January, February and March 2022.

SUMMARY

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Based on observations and information received it appears that the site is being operated in general compliance with permit conditions.

NAME Marion J LeBlanc

DATE 1-29-24

SUPERVISOR Shane Nixon