

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

P001659547

FACILITY: RIVERSIDE - FLINT NAPPERS CPF		SRN / ID: P0016
LOCATION: Flint Nappers CPF, ALPENA		DISTRICT: Gaylord
CITY: ALPENA		COUNTY: ALPENA
CONTACT: Natalie Schrader , Compliance Coordinator		ACTIVITY DATE: 08/27/2021
STAFF: Sharon LeBlanc	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY 2021 scheduled inspection. Activity includes review of records requested by B. Rogers, but review not documented. sgl		
RESOLVED COMPLAINTS:		

On August 27, 2021, AQD District Staff performed a scheduled site inspection at the Riverside Energy Group (Riverside), Flint Nappers CPF, located at 5464 Prevo Road, Wilson Township, Alpena County, Michigan. SRN No. P0016. The facility is permitted under Permit to Install No. 285-09 issued on January 4, 2010. The purpose of the site inspection was to confirm operation of the facility in compliance with the referenced permit. The most recent site inspection was conducted on August 4, 2017, no compliance issues were noted.

In addition to onsite observations, this report documents records review for 2020 compliance records submitted per request of AQD District Staff by the Facility on October 2, 2020. Ms. Natalie Schrader of Riverside provided records for review upon request and in a timely manner. Review of the documents had not previously been documented by District Staff before retirement.

Weather conditions at the time of inspection were overcast and 68 degrees Fahrenheit.

FACILITY

The referenced facility is located in the NE ¼ of the SW ¼ of Section 14, T30N, R6E, Wilson Township, Michigan. Access to the facility is located just south of the intersection of Prevo Rd and Nappers Rd. The access road is the first on the west side of Prevo road and is gated and locked before you get to the station. Adjacent properties consist of predominantly agricultural property, though there are some smaller parcels of wooded property.

The referenced facility was permitted by Atlas Gas and Oil Company LLC, who effective April 19, 2011 became Chevron Michigan, LLC. On April 29, 2016, the company became Riverside. Readily available aerials indicate that the Facility was constructed between 1993 and 1998.

Activities at the facility include separation of H2O from the stream using a dehydrator prior to compressing the gas for the pipeline. No crude or condensate is generated onsite. Water separated from the gas stream is containerized in brine tanks onsite before being pumped for disposal. The gas stream associated with the facility is reported to be from Antrim Formation wells.

At the time of the inspection the Facility was found to be tidy, with no signs of leakage at or around the equipment.

Operational parameters noted at the time of inspection included:

RPM	1195
Catalyst Temp -In	1071

Catalyst Temp -Out	1107
Engine Oil Pressure	56
Engine Oil Temp	156
Documented downtime for Month	5.5 Hrs

PERMITS

Permits of record for the Facility include:

PTI No.	Approved	Comment
285-09	January 4, 2010	Atlas Gas and Oil Company LLC

APPLICABILITY

Though not identified in the permit for the facility, the facility as an area source may be subject to federal Regulation. Subparts frequently associated with oil and gas facilities are identified below. Compliance with these subparts has not been determined as part of this inspection.

The referenced facility does not process or store petroleum liquids, nor store them onsite and is therefore appears to not be subject to 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);

In addition, the existing engine(s) has an installation date of 2004, which would make them not subject to NSPS Subparts IIII and JJJJ for Compression Ignition (CI) RICE and Spark Ignition (SI) RICE, respectively.

Subpart OOOO would apply to onshore affected facilities that are constructed, modified or reconstructed after August 23, 2011. Based on available information it appears that the referenced subpart is not applicable at this time but that future changes may be subject to the referenced subpart.

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)

With respect to Subpart HH, the facility's TEG dehydrator is reported to not be subject to the subpart due to the Antrim source (no benzene). The facility also reports maintaining adequate records to demonstrate they are under applicable thresholds. A compliance determination has not been made with respect to this subpart, and at the time of report preparation AQD does not have authority to enforce the subpart.

With respect to Subpart ZZZZ, Initial Notification for Subpart ZZZZ by O.I.L. Energy Corp was received by the District Office on February 16, 2011. The referenced document identified the facility as an area source of HAPS, and a compliance date of October 19, 2013. A determination of compliance under the referenced subpart has not been made as part of this compliance determination AQD does not have authority to enforce the subpart.

EQUIPMENT

One building and two 400-barrel brine tanks (in secondary enclosure) are present onsite. Permitted equipment onsite consists of

EU	Description	Installation Date	Removal Date
EUDEHY	Tri-ethylene Glycol Dehydrator with process heater	2004	NA
EUENGINE1* Unit 800 SN 49C01180	SI, Rich Burn, 830 Hp, CAT 399TA RICE with catalyst and air to fuel ratio controller.	2004	June 7, 2020
EUENGINE1* Unit 800 SN 49C01103	SI, Rich Burn, 830 Hp, CAT 399TA RICE with catalyst and air to fuel ratio controller.	June 7, 2020	NA

*EUENGINE1 is the engine for the R-Framed Aerial Corporation NG Compressor onsite.

A previous review of District files associated with the August 4, 2017, site inspection did not contain records of engine change outs.

The compressor/engine is equipped with an auto shut down and alarm for critical malfunctions. The engine is equipped with a muffler and an unobstructed stack that appeared to meet the maximum exhaust diameter of 12-inches and minimum height of 36 feet above ground level (Special Condition (SC) VIII.1).

COMPLIANCE

History –

No complaints are of record for the facility. Annual reporting of emissions under the MAERS Program is of record for the Facility. It should be noted that during records review, it became apparent that documentation of the January 22, 2020, submittal of calendar year 2019 emissions had not been made in the MACES database. District staff confirmed the submittal with the appropriate AQD Staff and input the MACES data to correct the issue.

Evaluation –

Compliance is being determined with respect to conditions associated with Permit No. 285-09. Permitted emission units are limited to EUDHY and EUENGINE1. No compliance determination has been made with respect to 40 CFR Parts 60 and 63 subparts as delegation for area sources has not been received to date.

Process and operations –

At the time of the site inspection, District Staff noted that the site was well maintained; no staining or visible emissions were noted. The compressor was in operation at the time of the inspection. A steam plume was noted from the dehy stacks.

EUDEHY –

Permit conditions associated with EUDEHY are limited to a high-level citation that the EU shall meet the requirements of 40 CFR Part 63 Subpart HH (SC III.1). As well as monitoring and recordkeeping requirements to show that EUDEHY meets requirements which allow the EU to be exempt from the referenced subpart (VI.1 and VI.2 or VI.1 and VI.3).

Records provided by the Facility show that actual annual average flowrate for EUDEHY is less than 85K cubic meters/day (SC VI.1) and those records provided were sufficient to show compliance with SCVI.2.

EUENGINE1 -

Permit 285-09 requires that no later than 60 days after the issuance of the permit, that a Preventative Maintenance/Malfunction Abatement Plan (PMAP) be submitted to the AQD District Supervisor for review and approval (SC III.1). A review of District Files identified a PMAP submitted by Atlas Energy Resources, LLC dated February 18, 2010 (received March 1, 2010) for the referenced facility. The referenced document was one of 23 approved in AQD correspondence dated July 15, 2010. Based on a January 4, 2010, issuance date, the referenced PMAP was determined to be in compliance with the referenced condition. No previous document existed in the files and not revisions were identified in District Files.

SC III.2 limits operation of EUENGINE1 to no more than 200 hours per engine per year without the add-on control device. Facility staff reported that the engine is not run without the catalyst, and select documentation provided in monthly log sheets confirmed the statement.

SC IV.1 requires any engine with a control device will only be operated with the control device installed, maintained and operated in a satisfactory manner. The PMAP for the facility identifies various activities to be conducted every 12-18 months and additional maintenance activities to be conducted every 18-24 months, with portable emission analyzer testing to be conducted every 5 years or after overhaul/swing. Records provided indicated that verification testing for catalyst destruction efficiency occurred June 12, 2020, and that catalytic converters pre and post catalyst temperatures are collected daily, and that differential pressure records are collected once per month since Records provided indicated that the operational parameters of temperature and differential pressures were within the parameters of the PMAP.

SC IV.2 requires the permittee to install calibrate, maintain and operate satisfactorily a device to monitor the natural gas usage for EUENGINE1. SC IX.1 requires that the meter be installed within 120-days of issuance of the permit. A fuel gas meter has been installed and the readings recorded remotely. However, there is no way to verify the installation date which should have occurred on or before May 4, 2010.

Emissions –

SC I.1 & 2 limit NO_x and CO emissions for EUENGINE1 to 15 and 20 tons/year based on a 12-month rolling average (respectively). Appendix A of 285-09 specifies that to determine NO_x or CO emissions For EUENGINE1, the permittee shall use the emission factors from vendor data or from source specific testing. Prior to 2018, the facility determined annual emissions for reporting using MAERS EF which are higher than vendor data. The Facility has since that time used vendor data to determine annual emissions. MAERS emissions data as well as year to date data provided by the Facility is presented below:

Calendar Year	NO _x (TPY)	CO (TPY)
2020	2.41	2.28
2019	3.78	0.68
2018	3.93	3.19
Limit	15	20

Engine (EUENGINE1) Emission testing conducted by Archrock reported as part of annual emissions reports included the following emissions data:

DATE	NO _x (TPY)	CO (TPY)	Minimum Destruction Reported
June 12, 2020	1.12	4.09	92.6% (CO)
May 8, 2018	1.92	2.42	86.5% (NO _x)
March 15, 2017	0.99	7.30	82.4% (CO)

Material Limits –

Under the referenced permit, the facility is restricted from burning sour NG in EUENGINE1 (SC II.1). The permittee reports that periodic testing is conducted to confirm H₂S content. Records provided indicate content below detection levels from each of the 17 different well fields coming into the facility during multiple sampling events.

Monitoring & Record Keeping –

SC VI.1 requires the permittee to complete all required calculations in a format acceptable to the AQD District Supervisor and make them available the last day of the calendar month, for the previous month, unless specified otherwise in another permit condition. Records provided by the permittee appear to be in compliance with the referenced permit condition.

Under permit 285-09, the permittee is required to keep monthly fuel use records (SC VI.5) for EUENGINE1. Fuel usage for EUENGINE1 is monitored using a continuous fuel gas meter,

recorded daily and the total compiled monthly for use in determining monthly emissions of NOx and CO per Appendix A (SC VI.6 &7), in compliance with permit conditions.

Other recordkeeping under permit No. 285-09 includes the following requirements:

- A log of all maintenance activities conducted according to the PMAP (SC VI.3)
- Monthly and 12-month rolling time periods records of the hours that the engine is operated without control (SC VI.4)

Logs and spreadsheets for maintenance activity, engine down times, catalytic converter maintenance and other activities were provided upon request and appear to be in general compliance with the permit.

Manual documentation of various readouts at the facility is conducted daily and is submitted to the corporate office at regular intervals. The above referenced information was provided in a timely manner in compliance with permit conditions. Copies may be found in district files.

Testing-

By request of the AQD District Supervisor, stack testing for NOX and CO (SC V.1) and H2S or total sulfur content of the NG stream (SCV.2) may be required. At the time of the inspection, engine testing has not been requested by the AQD District Supervisor, and SC V.1 is not applicable.

Reporting –

Under Permit 285-09, the permittee is required to notify AQD within 30-days should the engine be replaced and show that the alternate engine is equivalent or lower- emitting than the previous engine (SC VIII.1). Available records indicate that proper notification in compliance with the permit condition was received for the engine swing that occurred June 7, 2020.

Other-

Other requirements of Permit 285-09 not already identified include correction of stack height to a minimum of 36 feet above ground within 120 days of the permit issuance (SC IX.2). A review of the file does not indicate when the corrections of stack heights was completed onsite, but stack heights did appear to be in compliance with the permit condition.

Summary-

On August 27, 2021, AQD District Staff performed a scheduled site inspection at the Riverside Energy Partners LLC (Riverside), Flint Nappers CPF, located at 5464 Prevo Road, Wilson Township, Alpena County, Michigan. SRN No. P0016. The facility is permitted under Permit to Install No. 285-09 issued on January 4, 2010. The purpose of the site inspection was to confirm operation of the facility in compliance with the referenced permit. No previous compliance inspection is of record for the facility.

Ms. Natalie Schrader of Riverside provided records for review upon request and in a timely manner.

Based on the information obtained onsite and via the corporate office the facility appears to be in general compliance with permit conditions.

Sharon LeBlanc Digitally signed by Sharon LeBlanc
Date: 2021.09.08 12:35:49 -04'00'
NAME _____

DATE _____

Shane Nixon Digitally signed by Shane Nixon
Date: 2021.09.08 12:35:14 -04'00'
SUPERVISOR _____