

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

P003337837

FACILITY: RIVERSIDE ENERGY MICHIGAN, LLC - HELENA 23 CPF		SRN / ID: P0033
LOCATION: Helena 23 CPF, ALDEN		DISTRICT: Gaylord
CITY: ALDEN		COUNTY: ANTRIM
CONTACT:		ACTIVITY DATE: 10/13/2016
STAFF: Gloria Torello	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: 2017 FCE		
RESOLVED COMPLAINTS:		

SRN: P0033. Name: Riverside Energy Michigan, LLC. Helena 23 CPF.

Directions: The facility is located in Antrim County, Helena Township. The facility is located on the south side of Alden Highway/CO 618 between Crystal Springs Road and McPherson Road. Be prepared to walk in the approximately quarter mile from the road to the facility as the gate may be locked.

Application/Permit: This is an Antrim gas facility. The application included a lean burn Caterpillar G3516 LE, 1265 HP engine, and a glycol dehydrator. On March 10, 2010 the AQD issued permit 10-10. Based on emission limits, the facility would be a minor permit. However, the facility is considered an opt-out source due to the PTI VII. Reporting, Condition 1, which allows the changing out the engine at the facility.

The permit requires a Malfunction Abatement Plan (MAP): On July 15, 2010 AQD approved the MAP. The MAP includes one Caterpillar G3516 lean burn engine.

MAERS: The 2015 MAERS included one CAT 3516 LE - 1265 HP LOW EMISSION ENGINE and one GLYCOL DEHY – ANTRIM. MAERS does not claim "Control Efficiency %." The 2015 MAERS reported 14.6 tons NOx (60 tpy permitted) and 13.9 tons CO (30 tpy permitted).

MACTS:

The facility's HAP PTE is below 10/25 tpy for individual/total HAPs making the facility a true minor for HAP and making the facility an area source for the MACT listed below. The EPA has not delegated this Subpart to MI AQD and the Subpart was not reviewed.

- 40 CFR Part 63 Subpart HH, National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities.

MACES:

- Facility Information was reviewed and to *Description* "Antrim Gas" was added.
- Regulatory Info was reviewed. CMS is checked as this facility is considered an ROP/opt-out source. The following change was made:
 - o Subject To was updated to include 40 CFR Part 63 Subpart HH.

Compliance: A review of AQD files and MACES report generator show no outstanding violation.

Records:

The AQD requested, and the permittee provided, records documenting compliance with the permit, and with the MAP recordkeeping requirements. The records included: Dehy throughput, NOx and CO monthly and 12-month rolling emissions; and engine operating variables, fuel usage, and maintenance. The permittee demonstrated ongoing compliance with the permit's record keeping requirements. Specifics on the records are incorporated into the Permit Conditions below.

Inspection: On October 13, 2016 Gloria Torello of AQD visited the site. There is one engine onsite and the engine operated during the site visit. The engine does not have a catalyst. No visible emissions were noted from the engine stack and a heat shimmer could be observed. Near the engine is a clip board with operating information and for October 10th and 12th there were records made of Date, Gas Pressure, Suction, Inter-stage, etc. In the building with the engine is the glycol dehydrator, and separators. There is a wind sock onsite. The doors on the building housing the engine were shut. No odors were noted.

The site was tidy. On the walk into the facility various birds were in the area including crows and an American bald eagle.

Permit Conditions:

EUDEHY

The 8/8/2016 record shows 1058 MCF dehy throughput. The dehy meets exemption criteria for average flow rate of natural gas of less than 85,000 cu. meters/day (3,001 MCFD). <http://www.metric-conversions.org/volume/cubic-meters-to-cubic-feet.htm>

On 12/16/16 AQD staff spoke with Riverside's Natalie Schrader and suggested the dehy throughput record be updated to better identify the record is for the Glycol Dehy and the record is at the dehy Inlet and not a sales record. Natalie said she would check with her IT people to see if the record could be updated.

EUENGINE1

I. Emission Limits

The record "Throughput and emissions HELENA 23 CPF" shows NO_x and CO 12-month rolling emissions are below the permitted limits.

II. MATERIAL LIMITS

The record "H₂S Readings" for August 2016 includes CPF Sales H₂S (ppm): 0.2, which is less than 15.9 ppmv. The permit limits gas to containing more than 1 grain of hydrogen sulfide or more than 10 grains of total sulfur per 100 standard cubic feet which is equivalent to 15.9 ppmv.

III. PROCESS/OPERATIONAL RESTRICTIONS

On July 15, 2010 AQD approved the MAP. The record Compressor Downtime Report includes maintenance. The engine is uncontrolled so there is not a record hours the engine operated without an add-on control device.

IV. DESIGN/EQUIPMENT PARAMETERS

The engine is uncontrolled.

The record Company: Riverside Energy Michigan, LLC Project: Helen 23/Unit: 1100 includes natural gas usage, which is a demonstration there is a devise to monitor gas usage in place. There is not a II. MATERIAL LIMIT on natural gas usage.

V. TESTING/SAMPLING

The AQD has not requested the permittee verify NO_x and CO emission factors.

The AQD has not requested the permittee verify H₂S and/or sulfur content of the natural gas, but the record "H₂S Readings" for August 2016 includes CPF Sales H₂S (ppm): 0.2, see II. MATERIAL LIMITS above.

VI. MONITORING/RECORDKEEPING

The record "Throughput and emissions HELENA 23 CPF" for NO_x and CO 12-month rolling emissions shows the permittee completes required calculations in a format acceptable to the AQD.

The record Company: Riverside Energy Michigan, LLC Project: Helen 23/Unit: 1100 includes natural gas usage shows the permittee monitors, in a satisfactory manner, the natural gas usage for EUENGINE1 on a continuous basis.

The Compressor Downtime Report includes a log of maintenance activities conducted according to the MAP.

The engine does not have add-on control.

The record Company: Riverside Energy Michigan, LLC Project: Helen 23/Unit: 1100 includes natural gas usage, and is a satisfactory monthly fuel use record.

The record "Throughput and emissions HELENA 23 CPF" is satisfactory for showing monthly and 12-month rolling time period NO_x and CO emissions calculations records for EUENGINE1.

VII. REPORTING

No notice of engine replacement was found in the files.

VIII. STACK/VENT RESTRICTIONS

Based on a visual estimate, the engine stack meets the limits of 12 inches maximum diameter and 37 feet minimum above ground.

Conclusions:

It is suggested the dehy throughput record be updated to better identify the record is for the Glycol Dehy and the record is at the Inlet and not a sales record.

Via onsite inspection and review of records, the permittee demonstrated compliance with the conditions of permit 10-10.

NAME Glenn Inello

DATE 12-15-16

SUPERVISOR 

