

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

N709339882

FACILITY: Riverside Energy Michigan, LLC - KEARNEY 9		SRN / ID: N7093
LOCATION: SW NW SEC 10 T30N R7W, BELLAIRE		DISTRICT: Cadillac
CITY: BELLAIRE		COUNTY: ANTRIM
CONTACT: Natalie Schrader , Environmental Technician		ACTIVITY DATE: 04/12/2017
STAFF: Rob Dickman	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled inspection of this opt out source		
RESOLVED COMPLAINTS:		

Inspected this source per Permit to Install 327-06. No odors or visible emissions were noted on site during the inspection. An inventory of pertinent equipment is as follows:

Engine 1, V-16 CAT Engine without catalytic controls, Unit 1244
 Engine 2, V-16 CAT Engine with catalytic controls, Unit 381
 One small glycol dehy

Following are the findings of the inspection per permit Special Condition:

FGENGINES

1.1a NOx emission from EUENGINE1 are not to exceed 49.4 tpy based on 12-month rolling time period as determined at the end of each calendar month. Records provided by the facility indicate emissions from this engine were 15.57 tpy based on 12-month rolling time period as determined at the end of each calendar month as of March of 2017.

1.1b CO emission from EUENGINE1 are not to exceed 23.2 tpy based on 12-month rolling time period as determined at the end of each calendar month. Records provided by the facility indicate emissions from this engine were 14.80 tpy based on 12-month rolling time period as determined at the end of each calendar month as of March of 2017.

1.1c NOx emission from EUENGINE2 are not to exceed 16.5 tpy based on 12-month rolling time period as determined at the end of each calendar month. Records provided by the facility indicate emissions from this engine were 0.7 tpy based on 12-month rolling time period as determined at the end of each calendar month as of March of 2017.

1.1d CO emission from EUENGINE2 are not to exceed 13.0 tpy based on 12-month rolling time period as determined at the end of each calendar month. Records provided by the facility indicate emissions from this engine were 4.02 tpy based on 12-month rolling time period as determined at the end of each calendar month as of March of 2017.

Process/Operational Limits

- 1.2 No later than 60 days after issuance of this permit, the permittee shall submit to the AQD District Supervisor, for review and approval, a malfunction abatement/preventative maintenance plan for FGENGINES. This MAP was received by the AQD on May 3, 2007 and approved on May 27, 2007. Monitoring in the current MAP includes temperature differential across the catalyst, compressor downtime, and compressor operating parameter monitoring. A sample of these records is attached.
- 1.3 The permittee shall not operate any engine equipped with an add-on control device for more than 200 hours per engine per year without that control device consistent with the malfunction abatement/preventative maintenance plan (pursuant to SC 1.2). Engine 2 is equipped with a catalyst. There are no records in the last 12 months of the engine operating without the control device attached.

Equipment

1.4 The permittee shall not operate any engine that contains an add-on control device unless that device is installed, maintained, and operated in a satisfactory manner, except as specified in SC 1.3. Engine 2 is equipped with a catalyst. Temperature readings indicate a rise across the catalyst bed which is an indicator that it is working. Testing performed in August of 2016 indicates NOx destruction efficiency at 98% and CO destruction efficiency at 94%.

Testing

1.5 Upon request by the AQD District Supervisor, the permittee shall verify NOx and CO emission factors used to calculate emissions from one or more engine(s) in FGENGINEs, by testing at owner's expense, in accordance with Department requirements. Testing has not been requested in the last 12 months and is not recommended at this time.

Monitoring

1.6 The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor the natural gas usage for each engine. Each engine is so equipped. Records of natural gas usage are being kept.

Recordkeeping/Reporting/Notification

1.7 The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month. Records provided by the facility indicate these are being performed in a timely manner.

1.8 The permittee shall maintain a log of all maintenance activities conducted according to the malfunction abatement/preventative maintenance plan (pursuant to SC 1.2). Records provided by the facility indicate this is being performed.

1.9 The permittee shall keep, in a satisfactory manner, for any engine equipped with an add-on control device, monthly and 12-month rolling time period records of the hours each engine included in FGENGINEs is operated without the control device. Engine 2 is equipped with a catalyst. There are no records that this engine operated without a control device in the last 12 months.

1.10 The permittee shall keep, in a satisfactory manner, monthly fuel use records for each engine. Records of natural gas usage are being kept.

1.11 The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period NOx emission calculation records for each engine. Records of emissions are being kept.

1.12 The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period CO emission calculation records for each engine. Records of emissions are being kept.

1.13 Stack parameters for each engine appear correct.

FGFACILITY**Material Limits**

2.1 The permittee shall only burn sweet natural gas in FGFACILITY. Only sweet natural gas is burned at this facility.

Testing

2.2 Verification of H₂S and/or sulfur content of the natural gas burned in FGFACILITY may be required upon request by the AQD District Supervisor. Wells feeding this facility pump natural gas only from what is considered "sweet" formations. No request to verify this has been made in the last 12 months and is not recommended at this time.

At the time of the inspection, this facility was in compliance with their air permitting.

NAME *[Handwritten Signature]*

DATE 5/19/17

SUPERVISOR *SN*