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

N593637207

FACILITY: MERIT ENERGY COMPANY - LOUD 29		**SRN / ID:** N5936
LOCATION: 0000 BLUE LAKES RD, LOUD TWP		**DISTRICT:** Cadillac
CITY: LOUD TWP		**COUNTY:** MONTMORENCY
CONTACT: Randy Sanders , Operations Manager		**ACTIVITY DATE:** 10/19/2016
STAFF: Kurt Childs	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: 2017 FCE. Inspection and records review.		
RESOLVED COMPLAINTS:		

Full Compliance Evaluation

Site Inspection

I conducted a scheduled (unannounced) inspection of this CPF to determine compliance with process, operational, and equipment requirements of PTI 236-01A on 10/19/2016. This CPF is an opt-out source. The PTI identifies five compressor engines and a glycol dehydration system. At the time of the inspection I observed five compressor units, a dehy, and two tanks (one water, one oil) at this facility.

The dehy is located outside beneath an overhanging roof and was operating. It was vented to the atmosphere and did not appear to be equipped with a condenser or flash tank. Vapors and mild odors were present from the vent. There was no vapor recovery on the tanks or dehy and vapors were visible from the vent pipe on the tanks. The permit does not contain any requirements regarding this dehy and the tanks are small enough (<40,000 gallons) to meet the Rule 284 exemptions.

Compressor unit 16C is located in it's own separate building, the remaining four compressor units are located in one large building to which the dehy is adjacent. PTI 236-01A emission unit IDs have been associated with company unit IDs based on information in the PTI Evalform and the facility Malfunction Abatement Plan as well as the PTI stack parameters. The engines I observed and the associated data are as follows:

Unit ID	Engine	Cat. In	Cat. Out	L. AFRC O2 sensor output	R.AFRC O2 sensor output	RPM
EUENGINE4, Unit 16C	Waukesha L5790 G V-12 550 hp	780	852	0.84v	0.85v	609
EUENGINE5, Unit 5C	Waukesha L7042 GSI, V-12 1,000 hp	917	970	0.71v	0.78v	666
EUENGINE2 Unit 7C	Waukesha L5790 GL, V-12 1,000 hp	NA	NA	NA	NA	NA
EUENGINE1, Unit 11C	Waukesha, L7042 GSI, V-12 1,000 hp	890	943	0.76v	0.76v	642
EUENGINE3, Unit 147C	Waukesha L7042 GSI, V-12 1,000 hp	977	1061	0.81v	0.82v	723

Four out of the five engines were operating EUENGINE2, Unit 7C was not running. The compressor on this unit was disassembled at the time of the inspection. A daily inspection log was present and up to date for each engine. The operating parameters I observed were consistent with those noted in the daily

records. There were no visible emissions from the stacks.The equipment at the facility appeared to be as described in the PTI and appeared to be operating normally.

Records Review

Records were previously requested and were received on 10/24/2016. They include; maintenance logs, monthly emission calculation spreadsheets with fuel usage, and engine operation hours without catalysts. Maintenance records indicate that the engines have been serviced. Monthly and Rolling 12-month time period emission records demonstrate compliance with the NOx and CO emission limits in PTI 236-01A. None of the engines operated without a catalytic converter (200 hours operation annually is allowed).

PTI 236-01A Requirements

Emission Limits

As indicated above, records indicate each engine and the facility as a whole, have met the PTI emission limits. The highest facility wide NOx and CO emissions were 24.63 tpy and 33.98 tpy respectively (facility wide limits are 89 tpy each). The highest single engine emission rates (7.08 tpy NOx, 9.8 tpy CO) were for EUENGINE5, the engine with the lowest emission limits (9.1 tpy NOx, 16.2 tpy CO).

Material Usage Limits

The highest 12-month rolling average natural gas usage was 148.8 MMscf per year which is well below the PTI limit of 316.9 MMscf.

Process/Operational Limits

PM/MAP 2/14/2007 approved by AQD.

As indicated above no engine exceeded the allowed 200 hours per year of operation without a required catalyst.

Equipment

As detailed above, the inspection and records review indicate that the add-on control devices (catalytic converters) are installed, maintained, and operated properly.

Testing

No testing has been requested by AQD.

Monitoring

At the time of the inspection each engine was equipped with a device to monitor and record natural gas usage.

Recordkeeping/Reporting

As indicated by the attached records, all of the required emissions, maintenance, control device operation, and fuel use records are being maintained and are available.

Stack/Vent

The compressor engine stacks appeared to meet the specification in the PTI, there have been no changes.

As a result of this evaluation it appears that the MEC Loud 29 is in compliance with PTI 236-01A and the Air Pollution Control Rules.

NAME _____ DATE 10-25-16 SUPERVISOR _____