

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

B913629860

FACILITY: MERIT ENERGY CO. - Bear Lake 22		SRN / ID: B9136
LOCATION: 9 Mile Rd., BEAR LAKE		DISTRICT: Cadillac
CITY: BEAR LAKE		COUNTY: MANISTEE
CONTACT: Vicki Kniss		ACTIVITY DATE: 06/17/2015
STAFF: Kurt Childs	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: 2015 FCE inspection and records review.		
RESOLVED COMPLAINTS:		

I conducted a Full Compliance Evaluation including records and reporting reviews and an inspection of Merit Energy's Bear Lake 22 CPF. The purpose of the inspection was to determine the facility's compliance with Permit to Install (PTI) No. 50-04A and applicable state and federal regulations.

SITE INSPECTION

No one was present at the facility at the time of the inspection. The weather was overcast, temperature around 70 degrees, calm winds. Initial observations of the facility indicated no visible emissions or abnormal odors. At the time of the inspection the following equipment was observed:

Tank battery with 5 tanks, 2 marked "crude oil". There was an operating VRU serving the tank battery. In a separate area of the facility there was also one blow-down tank.

There were 2 compressor buildings but only the "west" building contained a compressor engine (Unit 124C). The engine in the "East" building (Unit 230) had been removed. The facility was permitted for two 1,000 hp Waukesha engines equipped with catalytic converters. The remaining engine in the "west" building was operating at the time of the inspection. The catalytic converter on the west building was located on top of the cooling fan outside the building.

One glycol dehydrator was present and operating.

There was one heater treater and five in-line heaters. Two of the in-line heaters were operating.

There was no flare (originally indicated in the PTI application), and no natural gas liquids separation equipment.

COMPLIANCE EVALUATION

EU-BL22DEHY – Glycol dehydration system processing gas from the Niagaran formation. This system includes a 200,000 BTU/hr natural gas fired burner. There are no emission limits, material use limits or testing and sampling requirements associated with this emission unit. Additionally, there are no monitoring or recordkeeping requirements associated with this emission unit.

S.C. 1.1 and 1.2 – Merit Energy is not allowed to operate the facility unless a flash tank and condenser are installed and operating in a satisfactory manner. Both the flash tank and condenser were installed and operating. There were no vapors or odors and the equipment seemed to be operating properly.

FG-BL22COMPS – Two Waukesha L7042 GSI compressor engines rated at 1,000 horsepower with catalytic converters and air to fuel ratio controllers. However, on May 9, 2007 MEC notified the AQD in writing that Unit 230 had been permanently shut down with fuel line services to the building removed. There are no emission limits, material use limits or testing and sampling requirements associated with this flexible group. At the time of the inspection, only one compressor engine (Unit 124C) was operating. The engine was operating at 746 rpm though a note written next to the tachometer states that it reads 70 rpm low so the actual reading would be 816 rpm. The inlet temperature to the catalyst was 772°F and the outlet temperature was 807°F. These temperatures are consistent with the ranges established in the PM/MAP.

S.C. 2.1 - A Preventative Maintenance and Malfunction Abatement Plan (PM/MAP) was submitted to the AQD for approval. The plan was approved on March 19, 2007 and revised on January 4, 2008.

S.C. 2.2 - The compressor engines are not allowed to operate for more than 200 hours per year per engine without a catalyst. Based upon records submitted by Merit Energy, the engines operated April through September 2014 with the catalysts installed.

S.C. 2.6 – Merit Energy provided AQD staff with records of all maintenance activities performed at the CPF. No maintenance was performed on the catalyst during the period covered by the requested reports.

FGFACILITY – All process equipment at the facility including equipment covered by other permits, grandfathered equipment and exempt equipment.

S.C. 3.1a - The nitrogen oxide (NOx) and carbon monoxide (CO) emissions from the facility are limited to 89 tons per 12-month rolling time period. Records submitted by Merit Energy indicate that the highest 12-month rolling emissions from the facility occurred in April 2014. The NOx and CO emissions were 7.61 and 9.94 tons per 12-month rolling time period, respectively which is well below the facility limit.

S.C. 3.2 - the facility is allowed to burn only sweet natural gas. A gas analysis previously provided by Merit indicates the fuel burned by the process equipment contains 7 parts per million H2S, which is considered sweet gas as per Rule 336.1119.

S.C. 3.4 and 3.5 - Based on the records provided, Merit Energy is adequately maintaining records and calculations to demonstrate the facility is in compliance with the emission limits.

RECORDKEEPING AND REPORTING

The records required by PTI 50-04A were provided by MEC and as indicated above demonstrate compliance with the various recordkeeping requirements of the PTI. This facility doesn't have any specific reporting requirements. A modified PM-MAP was submitted and approved in 2008. The MAERS report has been submitted and reviewed annually, the 2014 MAERS report emissions summary report is attached. On 1/31/11 AQD received the Initial Notification of Applicability for the Stationary Reciprocating Internal Combustion Engine MACT, Subpart ZZZZ. The notification stated that this facility is subject to Subpart ZZZZ.

CONCLUSION

Based upon the on-site inspection and records review, AQD staff believes that the facility is in compliance with applicable state and federal regulations as well as Permit to Install No. 50-04A.

NAME  DATE 6-22-13 SUPERVISOR 