

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

N753727621

<b>FACILITY:</b> LINN Operating Inc.-Fred III (Gridiron) A2-34		<b>SRN / ID:</b> N7537
<b>LOCATION:</b> T28N R4W SECTION 34, HAYES TWP		<b>DISTRICT:</b> Cadillac
<b>CITY:</b> HAYES TWP		<b>COUNTY:</b> OTSEGO
<b>CONTACT:</b> Diane Lundin , Senior EHS Representative		<b>ACTIVITY DATE:</b> 10/23/2014
<b>STAFF:</b> Kurt Childs	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> SM OPT OUT
<b>SUBJECT:</b> 2015 FCE.		
<b>RESOLVED COMPLAINTS:</b>		

**Full Compliance Evaluation, site inspection and records review.**

I conducted a Full Compliance Evaluation including site inspection, records review and review of applicable reporting. The on-site inspection was conducted on 10/23/2014, records were requested prior to the inspection. The purpose of the inspection was to determine the facility's compliance with Permit to Install No. 241-05 and the Air Pollution Control Rules.

PTI application 241-05 identifies this facility as the Fred III A2-34 Booster but signage at the site identifies it as the Gridiron A2-34. I have updated MACES to include this information to prevent confusion in the future. This facility does not contain a glycol dehydrator, heaters, flare, or tank battery. The facility does have one Waukesha 3521 compressor engine and a Ford 351 engine used to start the larger Waukesha engine. The Ford 351 engine's size is small (< 10 MMBTU/hr) and potential emissions are small; therefore, a permit for the engine is not necessary.

At the time of my inspection the weather was mostly sunny, 50 degrees F and west winds. The engine sounded like it was running poorly and missing but there were no visible emissions from the stack. Engine RPMs were 835 and oil pressure was 57 psi. The engine RPM reading was below the recent readings on the inspection log at the site (around 965 RPM). An Exterran employee arrived on the site during my inspection so this information was not forwarded to LINN Energy Inc. The small ford engine is used to start the larger Waukesha engine, one half of the V-8 appears to operate as a 4 cyl engine and the other half as a 4 cyl compressor to generate compressed air.

Compliance with PTI 241-05 was evaluated as follows:

1. EUENGINE - Natural gas fired compressor engine, currently with no control.

**EMISSION LIMITS**

1.1a and b. - 12 month rolling NOx and CO emissions are limited to 51.7 tons and 47.9 tons, respectively. Emission calculations submitted by Ms. Diane Lundin (attached) show the highest 12 month rolling average NOx emissions in 2014 was 27.82 tons and the highest 12 month rolling average CO emissions in 2014 was 26.10 tons. Review of the records show that the facility is in compliance with the emission limits.

**PROCESS/OPERATIONAL LIMITS**

1.2 - The facility is required to have an AQD approved Malfunction Abatement/ Preventative Maintenance (MAP/PM) plan for the compressor engine. AQD staff previously reviewed and approved the MAP/PM Plan including a 12/09/2010 revision that clarifies there is no catalytic converter add-on control.

1.3 The permittee is prohibited from operating any engine equipped with an add-on control device for more than 200 hours per year. This engine is not equipped with an add-on control device.

**EQUIPMENT RESTRICTIONS**

1.4 - The engine is currently not equipped with a control device; therefore, this section is not applicable.

**TESTING**

1.5 - Testing to verify CO and NOx emission factors is only required upon AQD request. The AQD has not required any testing at this time.

**MONITORING**

1.6 - As required by the permit, a device was installed to monitor fuel gas consumption of the engine.

**RECORDKEEPING/REPORTING**

1.7 -12 month rolling NOx and CO emission calculations are adequately maintained and provided to AQD upon request (attached).

1.8 -Maintenance activities performed on the compressor engine are recorded and made available to the AQD (attached). The maintenance performed on the engine appeared to be consistent with the activities listed in the MAP/PM plan.

1.9 - Since there are no add-on controls, records of hours of operation without add-on control are not required.

1.10-12 - Monthly fuel use records as well as monthly and 12 month rolling NOx and CO emission calculations are adequately maintained and provided to AQD upon request (attached).

**STACK/VENT RESTRICTIONS**

1.13 - The compressor engine exhaust stack appeared to be consistent with the minimum height and maximum diameter listed in the Permit to Install.

2. FGFACILITY - All process equipment at the facility including equipment covered by other permits, grand fathered equipment and exempt equipment.

**EMISSION LIMITS**

2.1a and b - 12 month rolling NOx and CO emissions are both limited to 89 tons. Emission calculations submitted by Ms. Lundin (attached) show the highest 12 month rolling average NOx emissions in 2014 was 27.82 tons and the highest 12 month rolling average CO emissions in 2014 was 26.10 tons. Review of the records show that the facility is in compliance with the emission limits.

**MATERIAL LIMITS**

2.2 - The facility is allowed to only burn sweet natural gas. Previous stain tube testing resulted in non-detectable concentrations of hydrogen sulfide; therefore, the gas is considered "sweet".

**TESTING**

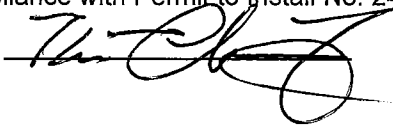
2.3 - Testing to verify the H2S concentration of the gas was previously requested by AQD staff and determined acceptable.

**RECORDKEEPING**

2.4 - 12 month rolling NOx and CO emission calculations are adequately maintained and provided to AQD upon request (attached).

**CONCLUSION** - Based upon the on-site inspection and records review, AQD staff considers the facility to be in compliance with Permit to Install No. 241-05 and the Air Pollution Control Rules.

NAME



DATE

11-20-14

SUPERVISOR

