

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

N610929196

FACILITY: JORDAN DEVELOPMENT COMPANY, L.L.C. - SCHROEDER		SRN / ID: N6109
LOCATION: NW NE SEC 16 T30N R1W, CHARLTON TWP		DISTRICT: Cadillac
CITY: CHARLTON TWP		COUNTY: OTSEGO
CONTACT:		ACTIVITY DATE: 04/16/2015
STAFF: Kurt Childs	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: 2015 FCE including site inspection and records review.		
RESOLVED COMPLAINTS:		

2015 FCE

I conducted a Full Compliance Evaluation (FCE) including site inspection and records review of the Jordan Development Company, Schroeder CPF. The Schroeder CPF is an opt-out facility with PTI 667-96A. At the time of the inspection the sky was overcast, temperature was 55 degrees F with calm winds. There were no visible emissions or odors from any of the facility stacks/vents.

The facility consists of the following equipment:

- A tank battery consisting of 2 brine tanks, one 400 barrel and one 200 barrel.
- There was one dehydrator which was operating at the time of the inspection, no odors were noted. This dehy was equipped with a flash tank. The records indicate that total facility gas production is below 85,000 cubic meters/day (3,000 MMBtu/day) therefore the dehy is exempt from subpart HH.
- The compressor building houses one compressor/engine. PTI application 667-96A indicates there is one CAT G398 TA engine equipped with a catalytic converter. At the time of the inspection there was a Caterpillar V-12 compressor engine meeting this description running the compressor. The engine appeared to be equipped with a catalytic converter. Engine RPM were 822 and oil pressure was 60 psi. The catalyst inlet temperature reading was 794 degrees F and the outlet temperature was 743 degrees F. The engine was also equipped with AFRC but it was not operating at the time of the inspection. The facility was equipped with a gas meter reading fuel usage. The engine exhaust stack appeared to meet the permit requirements of 8" max. diameter and 20' min. height.

The 2014 MAERS report was reviewed and was determined to be acceptable. A Malfunction abatement plan was approved on 2/29/08. The malfunction plan states the catalyst outlet temperature must be greater than or equal to the inlet temperature and also specifies there is an AFRC and proper operation is O2 content between 0-1%. I notified JDC of my observations regarding the catalyst temperatures and non-functioning AFRC. I received a response on 4/28/15 (attached) which indicated that the catalytic converter element had been removed as of 2/28/13 due to changes made to the engine to improve fuel economy. Since the catalyst was removed, the AFRC was not necessary so it is not operating. Emissions testing has been conducted to ensure the PTI emission limits have not been exceeded (see attached records provided with the 4/28/15 response).

However, according to the Evalform, the purpose of PTI 667-96A was to install catalytic control equipment on the existing engine to reduce emissions to maintain the facility as a minor source. PTI SC 2.3, 2.4 and 2.9 and the PM/MAP require or limit operation of the engine without the catalyst. It appears that at the current processing rates and loads the engine can meet emission limits without the catalyst and AFRC but the Potential to Emit has been increased by removing the control device. The permit and PM/MAP should be revised, if possible, to reflect the current operating scenario.

Prior to the inspection I requested that the company provide the following records:

- Monthly NOx, and CO emissions calculations.
- Monthly fuel use.
- Maintenance logs.
- Monthly and 12 month rolling time period records of the hours the compressor engine was operated without the control device.

The records were provided on 11/05/2015 and are attached. 12-month rolling NOx and CO emissions were within permit limits of 10 tpy and 15 tpy respectively but were calculated using the controlled emission factors of 0.94 Gm/Hp-Hr for NOx and 1.49 Gm/HP-Hr for CO. The uncontrolled emission factors are 15.20 Gm/Hp-Hr for NOx and 1.10 Gm/Hp-Hr for CO. The emission testing records I received on 4/28/15 indicate the actual emission rate varied from 2.77 to 4.49 Gm/Hp-Hr for NOx and 0.78 to 1.05 Gm/Hp-Hr for CO. Annual emissions based on testing using these emission factors were below the 10 tpy limit for NOx and the 15 tpy limit for CO. The 11/05/2015 records indicate the engine was not operated without the catalyst during the reporting period though apparently it has been. Extensive maintenance records were also provided, a sample is attached.

The results of the inspection and records review indicate the facility is currently not in compliance with PTI 667-96A and a Violation Notice must be issued.

NAME 

DATE 4-28-15

SUPERVISOR 