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

N782837562

FACILITY: MUSKEGON DEVELOPMENT, Dover Facility		**SRN / ID:** N7828
LOCATION: NE 1/4 SEC 30 T31N R2W, DOVER TWP		**DISTRICT:** Cadillac
CITY: DOVER TWP		**COUNTY:** OTSEGO
CONTACT: MICHAEL MESBERGEN , ENGINEER		**ACTIVITY DATE:** 11/03/2016
STAFF: Shane Nixon	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: on-site inspection and records review.		
RESOLVED COMPLAINTS:		

AQD staff traveled to Otsego County to perform an inspection of the Muskegon Development facility. The purpose of the inspection was to determine the facility's compliance with Permit to Install No. 215-07 and applicable state and federal air pollution control regulations.

EUENGINE1 – Caterpillar Model 398 compressor engine. AQD staff noted the skid number associated with the engine (GCS 912) is consistent with the number observed during an inspection in 2013. The engine is considered rich burn and is equipped with a catalytic converter. Operational data observed by AQD staff during the inspection were as follows:

Catalyst inlet temperature: 878° Fahrenheit
Catalyst outlet temperature: 1,010° Fahrenheit
Engine operating rate: 1,171 revolutions per minute
Engine coolant temperature: 195° Fahrenheit
Engine oil temperature: 200° Fahrenheit
Engine oil pressure: 60 pounds per square inch

Emission Limits – The NO_x and CO emission limits for the compressor engine is 10.3 tons per 12 month rolling time period and 13.4 tons per 12 month rolling time period, respectively. Based upon records submitted by the company, the highest emissions for the time period between September 2015 and August 2016 occurred in September 2015. At that time, NO_x emissions were 2.97 tons per 12 month rolling time period and CO emissions were 5.14 tons per 12 month rolling time period.

Process/Operational Restrictions – As per the requirements of the PTI, Muskegon Development submitted a Malfunction Abatement Plan for within the required timeframe. Based upon records submitted by the company, maintenance on the compressor and catalyst were performed according to the MAP. The engine is allowed to operate for no more than 200 hours per year without add on control. Records indicate there were no hours in which the compressor operated without a catalyst.

Equipment Restrictions – The catalyst appeared to be operating properly at the time of the inspection based upon the temperature rise across the catalyst.

Testing – There are currently no testing requirements associated with this emission unit; therefore, this section is not applicable.

Monitoring and Recordkeeping – At the time of the inspection, a monitor to measure and record the natural gas fuel consumed by the engine was installed and operating. Monthly fuel usage records as well as NO_x and CO emission calculations for the compressor engine were made available upon request. The calculations submitted by the company differ from AQD calculations. It appears the NO_x emissions are listed in the CO column and vice versa. AQD staff will contact the company to identify the reason. Despite the confusion, the facility is in compliance with the emission limits contained in the PTI.

Stack/Vent Restrictions - The stack associated with the compressor engine appeared to be constructed in accordance with the parameters listed in the PTI.

NAME Shane Nixon DATE 11/10/16 SUPERVISOR