

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

N620632581

FACILITY: Ward Lake Energy - Charlton 36 CPF		SRN / ID: N6206
LOCATION: NE NW NE SEC 36 T31N R01W, CHARLTON TWP		DISTRICT: Gaylord
CITY: CHARLTON TWP		COUNTY: OTSEGO
CONTACT: Jeffrey Riling , Manager, Michigan		ACTIVITY DATE: 12/17/2015
STAFF: Bill Rogers	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT:		
RESOLVED COMPLAINTS:		

On December 17, 2015, I inspected the Ward Lake Energy Charlton 36 Central Production Facility. The facility is operated by EnerVest Operating, LLC. It is located in a rural area on Johnson Crossing Grade west of Meridian Line Road.

This is a natural gas Central Production Facility (CPF). CPFs collect natural gas from several wells. Typically they remove water from the natural gas using a glycol dehydrator and pump the gas into the unprocessed gas pipeline system which serves this area. This facility produces natural gas from the Antrim Formation, which is usually low in sulfur (in other words, not "sour gas"). The facility does not produce any hydrocarbon liquids.

Compressor engines at CPFs are subject to the Reciprocating Internal Combustion Engine MACT, 40 CFR 63 Subpart ZZZZ. CPFs are subject to the Oil and Natural Gas Production MACT, 40 CFR 63 Subpart HH.

Subpart HH imposes several conditions on glycol dehydrators at oil and natural gas production facilities, in particular. However, during my inspection I observed there is no longer a glycol dehydrator on this site. Therefore, Subpart HH conditions which refer to glycol dehydrators are currently not applicable.

During past inspections this facility had a medium sized natural gas fired compressor engine, Caterpillar 3406 of 325 horsepower. This has been removed. The engine on site now is a 95 horsepower model. Mr. Riling stated the company had wished to keep the permit active in case they wanted to return it to higher production, although he was not sure how likely this was.

INSPECTION

I arrived on site at 12:45 PM. The facility sign identified the facility as

Ward Lake Energy - N. Charlton 36 - NE/4 NW/4 NE/4 - Sec. 36, T31N R1W - Charlton Twp. Otsego County
- in case of emergency call collect - 989-732-8499

The compressor shed contained one small engine, considerably undersized for the building it occupied. I could not find any glycol dehydrator or evidence of one. The engine had no catalytic oxidizer. It exhausted through a stack of about 6 inches diameter through the roof of the shed at a height of perhaps 30 feet.

The engine was running at the time of my inspection. Engine instruments indicated 1528 RPM, engine oil pressure 57 psi, compressor oil pressure 30 psi, engine coolant temperature 205 degrees f.

The engine was labeled as Experian, number 201213.

Tanks on site inside the shed were one 300 gallon drum on stilts tank of Chevron HDAX ashless engine oil; one smaller drum on stilts tank of HDAX Screw Compressor Oil; and one steel tank which looked to be of somewhat larger capacity, perhaps 500 gallons, labeled Waste Oil. The engine and compressor oil tanks were above wooden, lined berm structures. There were also two 55 gallon drums labeled as engine coolant.

The facility includes one standard sized (400 barrel) tank labeled as a brine tank and a smaller tank, a cylinder about 2/3 the diameter and 3/5 the height of the 400 barrel one, labeled as "Slop Tank." These were inside a lined berm which appeared to be well maintained.

I didn't observe any opacity. There were no odors. I didn't see any stained soils or other evidence of spills or leaks. Maintenance appeared good; the only deterioration I noticed was some rust which appeared to be superficial.

RECORDS

I visited the offices of EnerVest and spoke to Mr. Riling, who confirmed that the Charlton 36 no longer has a dehydrator, and that the larger engine has been replaced by a Caterpillar 3304 NA. Mr. Riling says this is a 95 horsepower engine. Caterpillar literature online agrees with this statement.

Permit 27-97, Special Condition 16, requires recording monthly fuel consumption in million cubic feet, monthly crude/condensate throughput (if any) in barrels, monthly hydrocarbon liquid trucked; and glycol circulated through the dehydrator. Data on monthly fuel consumption, provided by Mr. Wayne Cockrum of Environmental Consulting and Technology Inc., is attached. The other records required by Special Condition 16 are not applicable as the facility does not produce crude or condensate; does not truck any hydrocarbon liquids offsite; and does not currently include a glycol dehydrator.

Mr. Cockrum also provided a maintenance log for the engine on site. The unit number 201213 matches the number reported on the maintenance log. A few example pages of the 112-page document are attached. This meets the maintenance log requirements of 40 CFR 63 Subpart ZZZZ.

COMMENTS:

Permit 27-97 has not been voided, although it appears there is no equipment on this site which requires a permit. Mr. Riling told me EnerVest wanted to keep the permit in place in case they decided to return this facility to full production, although he was not sure how likely that really was.

Because Permit 27-97 has no condition allowing substitution of engines, a permit modification would be required to install a large engine at this site. The engine currently at this site is small enough to be exempt from permit requirements under Rule 285(g).

I made rough calculations of potential to emit based on Caterpillar engine data online. This will not be accurate because Antrim gas, used as fuel, doesn't have the same heat content as standard natural gas. However, they should provide a reasonable approximation.

Assuming operating full time, 8760 hours per year, NOx emissions should be approximately 0.9 tons. CO emissions should be about 1.8 tons. VOC emissions should be about 0.2 tons.

NAME William J Reguey Jr.

DATE 12/17/15

SUPERVISOR 