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

N676438495

FACILITY: DCP West Branch Compressor Stn		**SRN / ID:** N6764
LOCATION: M-55 West of Simmons Rd, WEST BRANCH		**DISTRICT:** Saginaw Bay
CITY: WEST BRANCH		**COUNTY:** OGEMAW
CONTACT: Bob Hipsher , Field Operator		**ACTIVITY DATE:** 01/31/2017
STAFF: Sharon LeBlanc	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Scheduled site inspection for 2017 fiscal year.		
RESOLVED COMPLAINTS:		

On Tuesday, January 31, 2017, AQD District Staff conducted a scheduled site inspection at the DCP Midstream (AKA DCP) West Branch Township Compressor Station (SRN N6764) M-55, West Branch, Ogemaw County, Michigan. One Permit to Install (16-00) is associated with the referenced facility and was issued on March 10, 2000. At the time of permitting, the facility was identified as a synthetic minor for NOx and CO having accepting operating restrictions to ensure they were below Title V thresholds. The previous site inspection was conducted on December 4, 2014.

The facility was unlocked but not operating upon arrival, and AQD staff conducted site inspection activities with Mr. Bob Hipsher, DCP Field Operator. Portions of the facility visited include the compressor buildings and a small operations building which houses recent records and equipment controls for the facility. Records were provided by Mr. Chad Winn, Senior Environmental Specialist with DCP.

Note that photos were not taken during the site visit due to operating "fire-eyes" which would have detected any flash from the camera as a potential fire/spark.

FACILITY DESCRIPTION

Based on available plat maps, the DCP Compressor Station (DCPCS) sits on approximately 10 acres of former agricultural property located east of West Branch, on M-55, Ogemaw County, Michigan. The facility is located amongst large parcels of privately owned lands, with a limited number of residences located along M-55.

The DCPCS is a fenced, remotely operated, unmanned facility. Maintenance issues are locally handled by Osborne Production Services. Compressors, controls, and monitoring equipment are located in enclosed structures onsite. (aerial in file). No above ground piping runs were visible, above ground piping being limited to the immediate vicinity of the equipment. The facility is reported to process "dry gas" with very little liquids. A review of Permit to Install application 16 -00 indicated that the facility was constructed in 2000.

The facility feeds supplemental gas to pressurized product lines during peak demand periods. No odorants are added at this point in the pipeline.

Prior to DCP purchasing the facility, it was owned by Michigan Pipeline & Processing, LLC (2008) and prior to that by the CMS Bay Area Pipeline, LLC (also referred to as CMS Gas Transmission Company).

Compliance History –

A review of readily accessible records indicated that the most recent site inspection was conducted on December 4, 2014, at which time the facility was found to be in general compliance with permit conditions.

MAERs submittals have been reported to be on timely manner. The most recent MAERs submittal being for the calendar year 2015.

Process Equipment -- The DCPCS consists of four (4), natural gas fired, compressors with 3516 Caterpillar 1305 BHP engines. Based on the location of the facility, the engines appear to meet the definition of remote. Per the permit application these units are further defined as 4-stroke, lean burn, reciprocating engines (EUENGINE1 through 4, AKA FGENG1-4). Engine specifications provided by the company is consistent with information on file with regards to the four units, and is in compliance with Special Condition 1 of the Permit to Install. These units are located two each in two unheated buildings onsite.

Each compressor is associated with a small scrubber to remove/collect liquids in the incoming "dry" gas stream, and a large tube-style cooler at the end of the compressor. The cooler acts like a radiator to remove heat created during the gas compression from the gas prior to its entering the main line. Exhausts for each of the engines run from the engine thru the catalytic oxidation system, located outside the building, then out the stack associated to the oxidizer for each system. The catalytic oxidation system for each engine was reported at the time of permitting to meet T-BACT requirements. No monitors have been installed to monitor the catalytic oxidation system.

COMPLIANCE EVALUATION

Operational Status – At the time of the January 31, 2017, site inspection the facility was not operating. A review of records appears to indicate that for the calendar years of 2015 and 2016, that one or more of the emission units (EUs) were operated principally in the months of September 2015, and July through October 2016.

Material Limits – A review of the permit identified no material limits associated with the referenced emission units. The permit application indicated that the equipment would be run on natural gas, and the present equipment does burn NG, in compliance with Special Condition 1 of Permit 16-00.

Operational Limits – Operational limits in the present permit include conditions requiring installation and proper operation of catalytic oxidation system for each emission unit (Special Condition 5) as well as a limit of no greater than 24,800 hours of operation per 12-month rolling time period (Special Condition 6).

Catalytic oxidizers for each emission unit have been installed at the facility. Hours of operation for the facility are recorded by Osborne Production Services in 3-ring binders maintained onsite, and provided to the environmental and operations staff at the Antrim Plant. Data is further compiled, tabled and evaluated by DCP Staff in a timely manner to determine ongoing compliance with respect to permit to install 16-00.

Based on the status of the facility, total hours operated are well below the permit limit per 12-month rolling limit of 24,800 hours specified in Special Condition 6.

Emission Points – Emission limits associated with the facility include hourly and 12-month rolling limits for both CO (Special Condition 3) and NOx (Special Condition 2).

Emissions for the facility are calculated using emission factors determined during stack testing conducted in September 3, 2003. Data provided by the company as part of the FCE inspection/evaluation indicated the following emission factors for the compressor engines:

Emission Unit	CO	NOx	Units

EUENGINE1	0.05	3.9	lb/hr
EUENGINE2	0.35	4.7	lb/hr
EUENGINE3	0.08	4.6	lb/hr
EUENGINE4	0.22	6.4	lb/hr
FGENG1-4	0.70	19.6	total lb/hr
Hourly Limit	7.2	28.8	total lb/hr

Based on the 2003 stack test data presented above, it would appear that both CO and NOx emissions associated with the emission units (FGENG1-4) are below hourly permit limits identified in Special Conditions 2 and 3.

CO and NOx monthly and 12-month rolling emission totals for the facility appears to indicate that the referenced emissions are calculated based on hourly totals for each emission unit and the stack test data for that emission unit to calculate total monthly and 12-month rolling values. The reported emissions are below the 22.3 tons of CO per year based the 89.4 tons of NOx per year, based on the 12-month rolling time period (special conditions 2 and 3).

Stack dimensions estimated by District Staff at the time of the inspection appeared to be in general compliance with the maximum 12-inch diameter and minimum of 30 above ground level requirements of Permit 16-00 (Special Condition 4).

Monitoring and Testing – Monitoring requirements associated with Permit to Install 16-00 for the facility require maintenance of records for a period of 5-years. As previously noted hourly operating totals are recorded onsite, and are submitted to other offices, where the data/records are evaluated and maintained in a database format for longer periods.

No testing requirements are specified in Permit to Install 16-00.

Record Keeping and Reporting – Record keeping under Permit to Install includes documentation of hours of operation for the emission units as well as computation of CO and NOx emissions. Totals are to be recorded on a monthly basis, as well as a 12-month rolling total in compliance with the permit. The records were available upon request and maintained electronically.

A review of reports received to date appears to indicate that the required reporting under the permit is being conducted in a timely basis.

SUMMARY

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include the compressor buildings and a small operations building which houses recent records and equipment controls for the facility. Records were provided by Mr. Chad Winn, Senior Environmental Specialist with DCP.

One Permit to Install (16-00) is associated with the referenced facility and was issued on March 10, 2000. At the time of permitting, the facility was identified as a synthetic minor for NOx and CO having accepting operating restrictions to ensure they were below Title V thresholds. At the time of permitting the facility was reported to not be subject to the NESHAP or NSPS. In addition, the facility did not trigger PSD as the PTE was less than 250 ton/year.

A brief review of Federal Regulations appears to indicate that based on date of installation (pre-2005) the facility is not subject to Subpart JJJJ. However, based on the non-emergency status, the engine specifications (>500 HP, 4 stroke, lean burn, spark ignition), the remote location, and the facility's status as a minor source of HAPs the facility is subject to one or more requirements under 40 CFR 63 Subpart ZZZZ (stationary reciprocating internal combustion engines). sgl

NAME S LeBlanc DATE 2/2/17 SUPERVISOR C. Hare