DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

N557362783

FACILITY: Consumers Energy - White Pigeon Compressor Station		SRN / ID: N5573
LOCATION: 68536 A ROAD, ROUTE 1, WHITE PIGEON		DISTRICT: Kalamazoo
CITY: WHITE PIGEON		COUNTY: SAINT JOSEPH
CONTACT:		ACTIVITY DATE: 04/19/2022
STAFF: Chance Collins	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled Inspection for FCE		
RESOLVED COMPLAINTS:		

On April 19, 2022, AQD staff traveled to Saint Joseph County to perform an inspection of Consumers Energy – White Pigeon Compressor Station. The purpose of the inspection was to determine the facility's compliance with MI-ROP-N5573-2018 and applicable state and federal air pollution control regulations 40 CFR Part 63 Subpart ZZZZ and 40 CFR Part 60 Subpart JJJJ.

The Consumers Energy – White Pigeon Compressor Station is a natural gas compressor station located along a natural gas pipeline. The facility maintains pressure in the pipeline transporting natural gas from a main line to storage facilities located in Michigan or to local distribution companies. The facility operates 12 natural gas-fired reciprocating compressor engines, three natural gas-fired emergency generators, and various heaters and degreasers. The facility also has various equipment exempt from permitting.

AQD staff arrived on site at 09:50 a.m. to overcast conditions with a temperature of 39°F, and a WNW wind at 18 mph. There were no noticeable odors upon arrival.

AQD staff met with Frank Rand of Consumers Energy who answered all questions and escorted staff around the site. The following discusses the results of the on-site inspection and review of records:

Plant 1 Auxiliary Building

Plant 1 Auxiliary Building houses EUAUXGEN1. This generator is subject to 40 CFR Part 63 Subpart ZZZZ. The hours of operation are recorded monthly and summed at the end of the year. The hours of operation listed on the generator read at 455.2 hours. The generator is also on a maintenance schedule which was reviewed on site and appeared to be in compliance.

The 2.5 MMBTU/hr boiler that was in this building at the last inspection has now been removed. The boiler was taken out in October 2019 and replaced with three separate 467,000 btu/hr boilers. They heat a water/glycol mixture and are exempt from the boiler MACT. The boilers themselves appear to be exempt from permitting by Rule 282(2)(b)(i).

EUDEGREASER1 is located in Plant 1 Auxiliary Building. The lid was closed, and the rules were posted.

Plant 1

Plant 1 has four grandfathered natural gas-fired compression engines (Engines 1-1, 1 -2, 1-5, 1-6). None of the engines were running at the time of inspection. Engines 1-

1 and 1-2 are no longer used and are still planned to be decommissioned with no official decommissioning date set. Engines 1-5 and 1-6 were not subject to NSR permitting requirements at the time that they were installed (after August 15, 1967). These engines are also not subject to 40 CFR Part 63 Subpart ZZZZ.

Plant 3

Plant 3 contains EUENGINE1 (3-1), EUENGINE2 (3-2), EUENGINE3 (3-3), and EUENGINE4 (3-4), (FGENGINES). These engines are natural gas-fired, lean burn, 4-stroke, spark ignited reciprocating engines with a 2-way catalyst for CO control. Engine 3-4 was running at the time of inspection. The catalyst parameters for engine 3-4 were:

Catalyst differential pressure:3.2

Pre catalyst temperature: 741°F

Post catalyst temperature: 765°F

These are all within the allowed ranges.

Plant 3 Auxiliary Building

Plant 3 Auxiliary Building houses EUEMERGEN, a natural gas-fired emergency generator. The generator is subject to 40 CFR Part 63 Subpart ZZZZ and 40 CFR Part 60 Subpart JJJJ. At time of inspection, a stack test is being prepared in order to comply with the testing requirement of 40 CFR Part 60 Subpart JJJJ. The hours meter on EUEMRGEN read at 324 hours.

Also housed in Plant 3 Auxiliary building is EUHEATER. EUHEATER is a natural gas-fired 3 MMBTU/HR hot water heater for the building heat and hot water in Plant 3 Auxiliary Building and heats a glycol/water mixture. The unit is equipped with a low-NOx burner. There is a natural gas use limit for EUHEATER of 12.88 MMscf/year, which is being met.

EUDEGREASER3 is located in Plant 3 Auxiliary Building. The lid was closed, and the rules were posted.

Plant 2

Plant 2 has four grandfathered natural gas-fired compression engines (Engines 2-1, 2 -2, 2-5, 2-6). None of these engines were operating at time of inspection. These engines are not subject to 40 CFR Part 63 Subpart ZZZZ.

Plant 2 Auxiliary Building

Plant 2 Auxiliary Building houses EUAUXGEN2. This generator is subject to 40 CFR Part 63 Subpart ZZZZ. The hours of operation are recorded monthly and summed at the end of the year. The hours of operation listed on the generator read at 463.3 hours. The generator is also on a maintenance schedule which was reviewed on site and appeared to be in compliance.

Plant 2 Auxiliary Building also has three separate 467,000 btu/hr boilers used to heat a water/glycol mixture which are exempt from the boiler MACT. These boilers also appear to be exempt from permitting by Rule 282(2)(b)(i).

EUDEGREASER 2 is located in Plant 2 Auxiliary Building. The lid was closed, and the rules were posted.

Records Review

Source wide conditions require source-wide natural gas consumption rate for each calendar month. This requirement is being met.

EUEMERGGEN requires monthly and 12-month rolling time period hours of operation for EUEMRGEN. This requirement is being met. EUEMERGGEN is also on a maintenance schedule, with records available of conducted maintenance.

EUHEATER requires monthly and 12-month rolling time period natural gas usage records. These records are being maintained. The 12-month rolling time period natural gas usage was reviewed. The highest in the period was October 2021 (7.54 MMSCF/YR), and the lowest in the period was March 2022 (3.99 MMscf/year).

FGAUXGENS requires a log of hours of operation for each generator in the flexible group, including hours for emergency and hours for non-emergency operation. These logs are being maintained and were reviewed. For 2021, the hours of operation for each generator are as follows:

EUAUXGEN1: 105.9 hours

EUAUXGEN2: 95.5 hours

EUAUXGEN3: 102.01 hours

FGENGINES requires a Continuous Parameter Monitoring System for each engine. This requirement is being met. There is also a PM/MAP for the engines. The pressure drop across the catalyst for reach engine is being recorded. Records of the 4-hour rolling average for each catalyst inlet temperature and monthly pressure drop for each catalyst are being kept and appeared to be within the correct range. Maintenance activity logs are being kept for each engine.

NAME _____ DATE 5/5/22 SUPERVISOR RIL 5/6/22