

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

N557373832

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: Amy D. Kapuga , Principal Environmental Engineer		ACTIVITY DATE: 06/13/2024
STAFF: Jared Edgerton	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Unannounced Air Quality Inspection to determine compliance with ROP No. MI-ROP-N5573-2018 and federal air pollution control regulations 40 CFR Part63 Subpart ZZZZ and 40 CFR Part 60 Subpart JJJJ.		
RESOLVED COMPLAINTS:		

On June 13<sup>th</sup>, 2024, Air Quality Division (AQD) staff (Jared Edgerton) arrived at 68536 A Road, Route 1, White Pigeon Michigan at 10:50 AM to conduct an unannounced air quality inspection of Consumers Energy – White Pigeon Compressor Station (CEWPCS). 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 Part63 Subpart ZZZZ and 40 CFR Part 60 Subpart JJJJ.

CEWPCS has been in operation since 1963, with roughly 13 people employed. There is one shift that runs 6 AM – 2 PM Monday through Friday. Other employees work 10-hour shifts Monday through Thursday. The plant has the ability to be operated remotely and has an on-call schedule for when issues require staff to come in. CEWPCS is a natural gas compressor station located along a natural gas pipeline. The purpose of the plant is to maintain pressure to transport the gas from the main line to the storage facilities located in Michigan or to local distribution companies. The plant is considered a Major Source for hazardous air pollutants (HAPs), nitrogen oxides (NOx), sulfur oxides (SOx), and carbon monoxide (CO). It is also considered a Minor Source for lead, particulate matter, and volatile organic compounds (VOC).

Staff met with Dennis Rice, Plant Operator. He answered all operations questions and escorted staff for the inspection tour. Tara Roach is the contact for all records-related activities. The summary below discusses the results of the on-site inspection and records review:

#### Inspection Walkthrough:

Upon arrival, there were no noticeable odors or visible emissions coming from any stacks. The tour started inside the Plant 1 auxiliary building. This building is where all office staff work, and it also houses EUAUXGEN1. EUAUXGEN1 is a generator that is subject to 40 CFR part 634 subpart ZZZZ. The generator, as well as the other ones located on the plant, are natural gas fired only. The operation hours book was reviewed by staff on-site, and appropriate hours of operation records are being kept by the facility. During the inspection the operating hours were at 507.8. The generator is on a maintenance schedule, and maintenance logs were received by staff. Mr. Rice told staff that this generator was operated earlier that morning for maintenance purposes. The unit appeared to be in good condition. Three separate 467,000 btu/hr boilers were located near the generator. They heat a water/glycol mixture and are considered exempt from permitting under Rule 282(2)(b)(i), and are not subject to the Boiler MACT (40 CFR Part 63, Subpart DDDDD). Maintenance logs are also being kept by the facility, and the units seemed to be in good condition.

**EUDEGREASER1** is also located in the Plant 1 auxiliary building. The lid was closed, and the rules were posted. A ZEP filter log is kept by the facility, and the unit seemed to be in good condition.

The on-site inspection walk-through then moved on to Plant 1, which houses four grandfathered natural gas-fired compression engines (Engines 1-1, 1-2, 1-5, 1-6). Mr. Rice told me that a stop order was issued for this plant, due to a large number of birds dying inside the building. AQD staff was not allowed inside the building to inspect any of the engines. A sanitation company was contacted to clean the building and would arrive later that week. During the previous inspection, it was stated that two of the engines were planned to be decommissioned without a set date. AQD staff confirmed that Plant 1 has been completely decommissioned. The main input and output lines were cut and sealed off, and the facility hopes to remove the engines from the property.

After walking past Plant 1, staff was led to Plant 2. On the walk over, the tour went past multiple gates and valves used to route natural gas to different locations in Michigan. All of the gates can be controlled remotely, and no odors from leaks were detected. Staff asked how often the valves are tested for leaks. Valves are tested yearly, and the facility was actively testing valves during the time of the inspection. In Plant 2, the building houses four grandfathered natural gas-fired compression engines (engines 2-1, 2-2, 2-5, 2-6). None of these engines were operating, but Mr. Rice did confirm that 2-5 and 2-6 ran earlier in the week. During the summer months, demand for natural gas is lower. Due to the low demand, Plant 2 is rarely run. These engines are not subject to 40 CFR part 63 subpart ZZZZ. Staff then moved into the Plant 2 auxiliary building which also has three separate 467,000 btu/hr boilers used to heat a water/glycol mixture. Again, these boilers are exempt from permitting under Rule 282(2)(b)(i) and are not subject to the Boiler MACT (40 CFR Part 63, Subpart DDDDD). **EUAUXGEN2** is located here, and this generator is subject to 40 CFR part subpart ZZZZ. Records of hours of operation are being kept and hour meter on the generator showed 516.1 hours during the inspection. A maintenance schedule is also being kept by the facility.

**EUDEGREASER2** is located in the Plant 2 aux. building. The lid was closed, and the rules were posted. The unit was in good condition.

The inspection moved onto the Plant 3 auxiliary building. This building houses **EUEMERGEN**, a natural gas-fired emergency generator. This generator is subject to 40 CFR Part 63 Subpart ZZZZ and 40 CFR Part 60 Subpart JJJJ. At the time of the inspection, at the hour meter showed 366.83 hours. The unit is in good condition and maintenance logs are being kept.

Also housed in the Plant 3 aux. building is **EUHEATER**. **EUHEATER** is a natural gas-fired 3 MMBTU/HR water heater for the building heat and hot water supply. It heats a glycol and water mixture. The unit is equipped with a low NOx burner. The facility plans to separate the natural gas meter that is used for both **EUHEATER** and **EUEMERGEN**. **CEWPCS** hopes to have a meter for both units in the coming months.

**EUDEGREASER** is located in the Plant 3 aux. building. The lid was closed, and the rules were posted. The unit appeared to be in good condition.

In Plant 3, EUENGINE1 (3-1), EUENGINE2 (3-2), EUENGINE3 (3-3), and EUENGINE4 (3-4), (FGENGINES) are located. These engines are natural gas-fired, lean burn, 4-stroke, spark ignited reciprocating engines with a 2-way catalyst for CO control. During the time of the inspection, Engine 3-3 was running. The following operational data for the Engine 3-3 catalyst was taken during the inspection:

- Catalyst differential pressure: 2.74
- Pre catalyst temperature: 723.60 degrees Fahrenheit
- Post Catalyst: 752.52 degrees Fahrenheit

A stack test was performed on FGENGINES in accordance with 40 CFR, Part 60, Methods 1, 3A, 4/ ALT-008, 7E, 10, 18, 19, and 25A. Testing consisted of three 1-hour runs for NOx, CO, and VOC at the exhaust outlet. The engines were required to operate within 10 percent of the max load capacity during the test periods. The test appeared to show compliance with permit requirements for NOx, CO, and VOC. Tests began on March 26<sup>th</sup>, 2024, and concluded March 27<sup>th</sup>, 2024.

The inspection concluded with AQD staff informing Mr. Rice of a record request being sent by email. Records were received by staff in the time allowed, and the results of the records review is summarized below:

#### **Conclusion of Inspection / Record Request Determination:**

At the time of the inspection, based on what was observed during the walkthrough, emission units appeared to be compliant with emission and material limits listed in ROP No. MI-ROP-N5573-2018. There are recordkeeping requirements under Source Wide, EUEMRGGEN, EUHEATER, FGAUXGENS, FGENGINES, and FGDEGREASER. Summarized below are the results of the records review. Records were received for the last two years.

#### **Records for Source Wide Condition**

1. Please provide records for source wide natural gas consumption rate per month.
  - Appears compliant? – Yes. Records are acceptable and kept per month. There are no emission or material limits listed under the Source Wide conditions.

#### **Records for EUEMERGGEN Conditions**

1. Please provide records for hours of operation of EUEMEGGEN (including emergency, maintenance testing, readiness testing, etc.) per month and 12 month rolling time period.
  - Appears compliant? – Yes. Records are acceptable and kept for both monthly and 12 month rolling time periods. Operation hours per 12 month rolling time period were below the 500-hour limit.
2. Provide records of a maintenance plan and maintenance records
  - Appears compliant? – Yes. Records are kept and acceptable.

#### **Records for EUHEATER Conditions**

1. Please provide records of natural gas usage in monthly and 12 month rolling time periods.
  - Appears compliant? – Yes. Records are acceptable and kept for both monthly and 12 month rolling time periods. Totals are well below the 12.88 MMscf per year limit. Last year the highest month was for February 2023 at 1.36 MMscf.

#### **Records for FGAUXGENS Conditions**

1. Please provide records of actions taken during malfunction, including corrective actions taken.

- Appears compliant? – Yes. Records are kept in a maintenance log with the malfunction listed, and what corrective actions were taken. Records are recorded whenever activity takes place.
- 2. Please provide records maintenance activities performed.
  - Appears compliant? – Yes. Records are kept in a maintenance log and are acceptable.
- 3. Please provide a log for hours of operation for each emission unit, including reason for operation, hours spent for emergency operation, and hours for non-emergency operation.
  - Appears compliant? – Yes. Records are kept in an acceptable manner. Reported hours are below the limit of 50 hours for non-emergency situations, and 100 per year for maintenance related activities.

### **Records for FGENGINES Conditions**

1. Please provide records of catalyst inlet temperature data in a 4-hour rolling time period. (for each engine)
  - Appears compliant? – Yes. Records of the catalyst inlet temperature is recorded every 15 minutes with the 4 hour rolling sum temperature also being recorded. Average temperatures seen for each engine in the flexible group was in the mid 700 degrees F. The range of temperature that is required to be met is 450 degrees F to 1350 degrees F.
2. Please provide monthly records of pressure drop across the catalyst for each engine
  - Appears compliant? – Yes. Records are kept in an acceptable manner, along with the temperature. Pressure drop readings are recorded every 15 minutes and are kept on a monthly basis. The pressure drop is usually within the 3.00 inches of water column range. Which is also within the acceptable range for pressure.
3. Provide a log of the facility maintenance activities conducted according to the PM/MAP.
  - Appears compliant? – Yes. Records are kept in a maintenance log. These records are acceptable.
4. Provide monthly records for fuel used or engine output (hp-hrs/month) for each engine.
  - Appears compliant? – Yes. Records are kept per month and are acceptable.
5. Provide records of actions taken during periods of malfunction, including corrective actions for each engine
  - Appears compliant? – Yes. Records are kept in a maintenance log and are acceptable.

### **Records for FGDEGREASER Conditions**

1. Provide records of serial number, model number, unique identifier for each cold cleaner, date the units were installed.
  - Appears compliant? – Yes. Records are kept, and all required inputs are recorded by the facility.
2. Provide material safety data sheet for solvents used in the degreasing units.
  - Appear complaint? – Yes. Records are kept, and readily available to staff. Solution is ZEP DYNA 143 20GL. The facility changes solution when needed. Lids on all the degreasing units were closed when not in operation, and had acceptable operation stickers on them.

**After reviewing what was observed during the on-site inspection and determining that the records were satisfactory with permit requirements, it appears that CEWPCS is currently in compliance with ROP No. MI-ROP-N5573-2018. Staff concluded the inspection at 12:05 PM. -JLE**

NAME 

DATE 9-26-24 SUPERVISOR 