

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

N557458206

FACILITY: ANR Pipeline Company - Hamilton Compressor Station		SRN / ID: N5574
LOCATION: 4193 134th Ave, HAMILTON		DISTRICT: Kalamazoo
CITY: HAMILTON		COUNTY: ALLEGAN
CONTACT: Chris Waltman , Senior Environmental Specialist		ACTIVITY DATE: 03/31/2021
STAFF: Cody Yazzie	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

On March 31, 2021 Air Quality Division (AQD) Staff (Cody Yazzie) arrived at 4193 134th Ave., Hamilton Michigan at 1:00 PM to conduct an announced air quality inspection of ANR Pipeline Company – Hamilton Compressor Station (hereafter ANR). Staff made initial contact with Koltin Ellis, ANR, Heartland Calumet Area Mechanic, the scheduled onsite contact for the facility walkthrough. Staff was provided with records pertaining to the ROP and exempt emission units prior to the onsite visit by Chris Waltman, ANR, Analyst – US Environmental Permitting.

ANR is a compressor station that is utilized to maintain pressure in pipelines that are transporting natural gas from the facilities southwest main lines to storage facilities in Michigan or to local distribution companies. The facility has one main 28,566 HP, natural gas, General Electric turbine that is used to compress gas. When supplemental compression is needed or when the main General Electric turbine is unavailable the facility has the ability to utilize five 1550 HP, two-cycle lean burn, Clark Model HBA6T reciprocating internal combustion compressor engines (RICE), or four 1125 HP, natural gas, Solar Model Saturn-SC turbines. The facility also includes two emergency generators and one process boiler. The facility recently applied and was approved PTI No. 98-20 which was for the installation of two new turbines, an emergency engine, natural gas fired heating units, and two liquid storage tanks for pipeline fluids and wastewater. These new emission units are meant to take over the compression operation at the facility. PTI No. 98-20 is written to allow for a transition period where both the old grandfathered engines and turbine can operate until the installation and proper operation of new emission units have been completed. This will result in the facility permanently decommissioning emission units EUHM001-010 once the emission units covered under PTI No. 98-20 have been properly installed.

ANR was last inspected by the AQD on June 7, 2019 and was determined to be in Compliance at that time with MI-ROP-N5574-2018. Staff asked, and Mr. Ellis stated that the facility does have a parts washer.

Mr. Ellis gave staff a tour of the facility. Required personal protective equipment are safety glasses, steel toe boots, hearing protection, and a high visibility vest. Staff observations and review of records provided during and following the inspection are summarized below:

EUHM013:

This is the facilities process boiler. This boiler is a 6.3 MMBTU/hr natural gas fired Kewanee Boiler that was installed on October 6, 1971 according to the Boiler Sheets. It currently is described as having a maximum heat input of 7.15 MMBTU/hr in the ROP. The description should be changed during the next ROP renewal to accurately describe the emission unit.

This boiler is subject to 40 CFR Part 63 Subpart DDDDD NESHAP for Major Sources: Industrial, Commercial, and Institutional Boiler and Process Heaters. This federal regulation requires the facility to complete a biennial tune-up no more than 25 months since the last tune-up. The facility is currently having the tune-up preformed annually. The last two tune ups were performed on 10/2/2017 and 8/28/2019. The tune-ups appear to meet the requirements in Special Condition IX.2.

FGHM001-010:

This flexible group encompasses the five Clark Model HBA6T natural gas fired RICE compressor engines, four Solar Model Saturn-SC turbines, and the one General Electric (GE) Model Frame 5 turbine. Most of these engines are grandfathered equipment being installed before August 15, 1967. The three turbines are installed after the grandfather date are EUHM008 and EUHM009 which are the two of the Solar Turbines, and the GE Frame 5 turbine. The only operational and recordkeeping requirements of this flexible groups that the emission units can only fire natural gas and must record the natural gas consumption for each calendar month.

The large GE Frame 5, 28,566 HP turbine engine (EUHM010) is typically the only turbine that is used to compress the natural gas pipeline. The facility is tracking hours of operation and monthly gas usage in MMSCF. During 2018 the largest gas usage came during May 2018 using 135.88 MMSCF of natural gas. This emission unit was not in operation during the inspection but did operate the day of the inspection. The facility stopped operating the turbine at 7:45 AM. Staff was provided with fuel usage and hours of operation of the turbine from January 2020 through February 2021. The largest gas usage for the turbine occurred in May 2020 in which it used 67.31 MMSCF of natural gas.

The five - 1,550 HP Clark RICE compressor engines (EUHM001-005) are operated to supplement/backup the GE turbine. These engines are housed in their own building. During the inspection none of the engines were operating. The facility is currently tracking hours of operation and the monthly gas usage in MMSCF. From the provided records the largest natural gas usage from one of these engines occurred on turbine EUHM002. EUHM002 used 1.50 MMSCF during October 2020.

The four – 1,125 HP Solar gas turbine engines (EUHM006-009) are also operated to supplement/backup the GE turbine. These turbines are also housed in their own buildings. During the inspection none of the Solar turbines were operating. The facility is currently tracking hours of operation and the monthly gas usage in MMSCF. From the provided records the largest natural gas usage from one of these turbines occurred on turbine EUHM008. EUHM008 used 2.53 MMSCF during February 2020.

When asked if the facility had any recent engine or turbine overhauls to any of the emission units Mr. Ellis stated that with these engines planning to be decommissioned after the installation of

the PTI No. 98-20 emission units that the facility would only be conducting maintenance to keep the units operating until the decommission.

MI-ROP-N5574-2018 does not require any of these emission units in this flexible group to comply with emission limits or natural gas usage limits. The facility is just required to record monthly natural gas usage and hour of operation.

FGHM011-012:

This flexible group consist of two – Ingersol-Ran Model PVG8 natural gas fired emergency generator engines. Both are four-stroke rich burn units that are rated at 370 HP. These engines are subject to the federal regulation 40 CFR Part 63 Subpart ZZZZ. These emission units were not in operation during the inspection.

These engines are equipped with a non-resettable hour meter that is used for tracking hours of operation and the reason for running. During 2020 Engine 1327 which is EUHM012 operated for a total of 56 hours total. The EUHM012 operated for 19 emergency hours and 37 maintenance hours. Engine 1326 which is EUHM011 operated for 60 hours all for monthly PM testing run. Records include date, start hour meter reading, stop hour meter reading, total running time, and reason for running. The facility did not exceed the allowed 100 hours per year of operation for maintenance checks and readiness testing.

ANR is keeping records of maintenance that is performed on the engines. The most recent maintenance occurred on 1/6/2021. The previous maintenance occurred roughly one year before on 1/21/2020. The activities that are conducted during these maintenance inspections are Spark Plug Inspections, Belt and Hoses Inspection, and an Oil Sample Taken to determine if the oil needs to be changed. The most recent oil sample showed that the oil that was tested on 1/6/2021 was within the RICE MACT specifications. The test show that the viscosity analysis measures the required Viscosity, Water content, and Total Acid Number (TAN).

Parts Washer:

The facility has a Hotsey Model: 7653 parts washer which appears to be exempt per Rule 281(2) (e). This parts washer is a non-solvent based detergent type parts washer. The parts washer has two hoses located inside an enclosed chamber that are used for cleaning.

PTI No. 98-20

During the inspection none of the new emission units covered under this PTI were installed. Staff did ask when the facility planned to install and start the decommission of the old emission units. Staff was told that installation would probably start at the end of 2021. The old emission units would stay operating until the facility was confident in the operation of the new emission units. Staff was told it would be like mid to late 2022 when the old equipment was finally decommissioned.

At the time of the inspection and based on a review of records obtained during or following the inspection, the facility appears to be in compliance with MI-ROP-N5574-2018. Staff stated to Mr.

Ellis that a report of the inspection would be sent to the facility for their records. Staff concluded the inspection at 1:30 PM.-CJY

NAME Cody Young

DATE 5/26/21

SUPERVISOR RIL 5/26/21