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

N392033833

FACILITY: Consumers Energy - Freedom Compressor Station		**SRN / ID:** N3920
LOCATION: 12201 PLEASANT LAKE RD, MANCHESTER		**DISTRICT:** Jackson
CITY: MANCHESTER		**COUNTY:** WASHTENAW
CONTACT: Simon Lato ,		**ACTIVITY DATE:** 03/18/2016
STAFF: Zachary Durham	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled inspection of the natural gas compressor facility identified in MI-ROP-N3920-2014 operated by Consumers Energy.		
RESOLVED COMPLAINTS:		

Contacts

Simon Lato
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Purpose

Scott Miller and I arrived at Freedom Compressor Station at about 11:00am on Friday, March 18, 2016. This was a scheduled, announced inspection of the facilities and equipment listed in ROP No. MI-ROP-N3920-2014 issued to Consumers Energy. The purpose of the inspection was to determine compliance with federal and state applicable requirements, including Act 451, Part 55, Air Pollution Control regulations and conditions of their Renewable Operating Permit (ROP). We met primarily with the facility manager, Simon Lato, and Richard Hall, site environmental and technical services lead. The inspection included a walking tour of the property and discussion of their planned site improvement projects.

Background

Freedom Compressor Station is a major source of NOx, emitting above the major source thresholds of 100tpy of NOx. The equipment at Freedom Compressor Station was not subject to require a Permit to Install (PTI) during the time of installation. The oldest equipment on site was installed between 1946 and 1955. More recently, several small boilers were added starting in 1994 as well as a large natural gas fired compressor engine in 1995. The company received approved PTI 202-15 in January 2016 for two (2) new compressor engines rated at 3,750 HP, though the units have not been installed yet. PTI 202-15 is one of two phases that the company has planned to update the equipment currently on site. They anticipate that the newly permitted engines will be installed by August or September 2016 and operational by January 2017. Phase 2 will follow the completion of Phase 1 and then retirement of the aging equipment will begin.

The compressor engines and emergency backup generators are subject to federal standards under 40 CFR 63 Subpart ZZZZ for reciprocating internal combustion engines (RICE).

The boilers located on site shall comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters located at a major source.

Freedom Compressor recently had a minor modification to amend duplicate equipment identified in the ROP. Another minor modification will take place after the new equipment discussed above is installed.

Compliance Evaluation

Source-Wide Conditions

The facility has been following the requirements of this section regarding the submittal of annual and semiannual certification and deviation reports. Additionally, they are aware of the procedures that must be followed to report the venting of natural gas for both routine maintenance and emergency release as outlined in permit exemption Rule 285(mm).

FGENGINES

This is the flexible group for existing natural gas fired reciprocating internal combustion compressor engines. They have one rated at 24MMBTU/hr and eight rated for 10MMBTU/hr. There are no emission or material limits associated with these pieces of equipment. The operational restriction permits the use of natural gas only, which is being adhered to. Additionally, the natural gas usage records are being kept and were reviewed while at the location. The gas is metered in two separate sheds, one for each plant area. Review of MAERS reports indicates fairly consistent emissions from year to year, with just less than 220 tons of NOx being emitted during the 2015 reporting year.

FGAUXGENS

This is the flexible group for the existing emergency compression ignition engines located on site since 1955. These engines do not have any emission or material limits associated with their operation. Process/operational restrictions limit the use of these engines to 100 hours per year for maintenance and testing. Also, the facility chooses to comply with Subpart ZZZZ by implementing an oil analysis program as described in 63.6625(i) of the subpart (see attached 2016 analysis report). The non-resettable hour meter was observed as were the maintenance logs and work orders for these two units. Units 1 and 2 were at 469 and 465 hours of operation during their lifetime, respectively. On 1/11/2016 AQD received an amended annual and semiannual certification report that indicated 1 deviation due to a missing record of the 2014 oil analysis. Corrective action has since been taken and subsequent oil analyses in 2015 and 2016 have indicated compliance.

FGBLRSHTRS

This is the flexible group for boilers and process heaters fired by natural gas. There are no emission or material limits with these units. On 1/28/2016 AQD received the Notification of Compliance Status (NOCS) that was submitted according to 40 CFR 63.7550 for boilers located at a major source subject to Subpart DDDDD. The initial tune-up and one-time energy assessment were conducted by Monarch Welding & Engineering.

FGCOLDCLEANERS

This is the flexible group that covers grandfathered and exempt cold cleaners at the site. I observed one cold cleaner that was shut at the time of inspection. The Safety Data Sheet (SDS) that was posted indicated the unit was using a solution entirely composed of petroleum distillates and none of the restricted materials containing halogenated compounds. It appears that this unit meets our exemption criteria and is being used properly.

Summary

The site is monitored continuously via mounted video cameras and controls access with a remotely operated gate. Scott and I arrived and used the intercom indicating our affiliation with the MDEQ-AQD and the purpose of our visit. We entered the facility and were directed to a conference room to meet with representatives of Consumers Energy – Freedom Compressor Station. Amongst those present were Simon Lato and Richard Hall, whom we spent the majority of the inspection with. I distributed several of the Environmental Inspection brochures as well as the Permit to Install Exemption handbooks. I then discussed the purpose and format of the inspection process, especially concerning the required recordkeeping documents and walk through portion.

During the pre-tour meeting I determined that since PTI 202-15 and the equipment detailed therein had not yet been installed, there was no need to discuss the permit conditions. I asked if there were any questions regarding the permit, but nothing of significance was addressed at this time. Following the installation of the new engines, a site visit would be appropriate.

The rest of the inspection addressed the ROP and existing equipment. We went through each section of the permit before heading out to the facility grounds. Simon and Richard showed us all areas with existing equipment contained in the ROP and also the site where the engines permitted in PTI 202-15 will eventually be located. Four of the eight 10MMBTU/hr compressor engines were operating during our visit, including EUENGINE14, EUENGINE29, EUENGINE58, and EUENGINE59. EUENGINE01, the 24MMBTU/hr compressor, was not operating during the inspection. EUENGINE57 has been retired, though is still physically located on site. While in the control room, the screen indicated which engines were running, where gas was being distributed to, and volumes exiting and entering the facility. Approximately 234 MMscf of natural gas was entering the facility at the time of inspection.

We concluded our tour and proceeded back to the conference room to conduct the wrap up meeting. During this time I was provided with the most recent oil analysis and observed the record keeping for fuel use in the compressor engines as well as in the emergency generators. Scott and I then exited the facility.

Compliance Determination and Recommendations

After review of MAERS, certification reports, and on-site inspection, I have determined that this facility is in compliance with state and federal regulations contained in MI-ROP-N3920-2014.

I recommend another visit to this site upon the installation of the newly permitted compressor engines.

I also recommend that retired equipment be physically removed from the site as well as removed from the ROP.

NAME Zach Dunham DATE 3/31/16 SUPERVISOR