

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

N216843226

FACILITY: GREAT LAKES GAS TRANSMISSION STATION #7		SRN / ID: N2168
LOCATION: 400 GREAT LAKES RD, WAKEFIELD		DISTRICT: Upper Peninsula
CITY: WAKEFIELD		COUNTY: GOGEBIC
CONTACT: Chris Waltman , Senior Environmental Specialist		ACTIVITY DATE: 01/12/2018
STAFF: Shamim Ahammod	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Conducted a scheduled inspection of the facility to determine the company's compliance with their issued ROP No. MI-ROP-N2168-2016		
RESOLVED COMPLAINTS:		

Facility: Great Lakes Gas Transmission Station (GLGT), Station #7
 Inspection Date: January 12, 2018
 MDEQ-AQD Staff: Shamim Ahammod, Environmental Engineer
 Facility Representative: Chris Waltman, Senior Environmental Specialist

LOCATION:

The Great Lakes Gas Transmission Station (GLGT) Compressor Station # 7 is located in Gogebic County, approximately 3 miles southeast of the city of Wakefield. There is a 6-foot chain link security fence topped with barbed wire surrounding the property and a single gated entrance with an intercom system. The surrounding area is rural.

SOURCE DESCRIPTION:

Wakefield Compressor Station #7 is one of the five stationary compressor stations in the Upper Peninsula used to maintain pressure in GLGT's mainline to and from storage facilities located in the U.P. or to local distribution companies or other end users. Compressor station #7 operates two (2) natural gas-fired turbines to recompress gas during transmission. The gas turbine/compressor assembly system is comprised of three components: a gas generator, a power turbine, and a gas compressor. The units receive the gas from the pipeline transmission system, compress the gas, and then discharge it to the pipeline transmission system at a higher pressure. The station does not operate a natural gas storage field or dehydration system. All stations may be operated via operators on site or remotely from the main control facility located in Texas.

The facility also has a natural gas-fired generator used to produce electrical power to the station in the event of a power outage and auxiliary equipment including a natural gas-fired boiler, two (2) natural gas-fired space heaters, one (1) AST for sweet condensate, and one (1) AST for diesel fuel storage.

REGULATORY ANALYSIS:**EU-UNIT01 and EU-UNIT02:**

The turbine compressors EU-UNIT701 and EU-UNIT702 shall fire only natural gas to ensure compliance with the visible emission limitations of Rule 301. Records of all fuel types fired in EU-UNIT701 and EU-UNIT702 shall be maintained on file for a period of five years (SC VI, and II.1). As I requested, Chris Waltman-Senior Environmental Specialist has sent the records of monthly fuel usage and operating hours of compressor via email. This information has been

attached to the activity report.

- At the time of inspection, EU-UNIT701 was not operating. Chris said
- EU-UNIT702 operated a total of 454.34 hours during the last 12 months (January 2017-December 2017) consuming a total of 54.838 MMSCF of natural gas

EU-APU: Natural gas-fired Waukesha F1197G Generator:

- EUAPU records shall be maintained on file for a period of five years (SC VI.1). As I requested, Chris has sent this information via email and paper copy of this document has been attached to the report. Records include hours of operation in emergency and non-emergency modes and any maintenance performed on the stationery emergency generator (III.1,2,3, and 4).
- EUAPU operated a total of 5.6 hours in non-emergency mode and 2.7 hours in emergency mode over the last 12 months starting January 2017 and ending December 2017.
- EUAPU had the following maintenance performed over the last 12 months.

1/19/2017 spark plug inspection—plugs were gapped and look good.
 1/19/2017 air cleaner inspection
 1/19/2017 oil sample collected -results from Fluid Life provided for last 6 samples (6/30/2014 through 1/19/2017, all results were satisfactory. 1/19/2017 oil changed (SAE 30)

Emission Units Summary Table:

Emission Unit ID	Emission Unit description	Compliance Status
EU-UNIT701	EU-UNIT701-Genral Electric Model LM2500 GE Stationary Gas Turbine burning only Pipeline Quality Natural Gas. The peak HP rating of EU-UNIT701 is 31,000 at ISO conditions.	Compliance
EU-UNIT702	EU-UNIT702-Rolls Royce Model Avon 76G Stationary Gas Turbine burning only Pipeline Quality Natural Gas. The peak load HP rating of EU-UNIT702 is 16,000 at ISO conditions.	Compliance
EU-APU	Natural gas-fired Waukesha F1197G generator	Compliance

EXEMPT EMISSION UNITS:

At the time of inspection following exempt emission unit were inspected:

Emission Units	Description	Basis of Exemption	RO Permit Exemption	NSR Permit Exemption
EUBOILER	Natural gas-fired York Shipley M303338M Boiler (3.35 MM BTU/hr	<50MM BTU/hr	R 336.1212(4) (b)	R 336.1282(b) (i)
EUHEATERS	Two (2) 0.2 MMBTU/hr natural gas-fired heaters			
EUCONDTANK	1100-gallon condensate storage tank	<40,000 gallons	R 336.1212(4) (c)	R 336.1284 (e)
EUDIESELTANK	500-gallon Diesel Storage Tank	<40,000 gallons & vapor pressure of <1.5 psia	R 336.1212(4) (c)	R 336.1284(i)

NON-APPLICABLE REQUIREMENTS

- Wakefield Compressor station #7 turbine compressors, EU-UNIT701 and EU-UNIT702 are subject to 40 CFR, Part 70 because of the potential emissions of NOx and CO exceeds 100 tons per year. This source is not considered a major source of HAP emissions. It is an area source-because the potential to emit any single HAP regulated by the Clean Air Act, Section 112 is less than 10 tons per year and the potential to emit of all HAPS combined are less than 25 tons per year.
- This source is not subject to Prevention of Significant Deterioration (PSD) regulations because the stationary source "netted out" of the PSD regulations for CO, NOX during the process of issuing PTI#329-89. Future modification of the process equipment may be subject to PSD requirements.
- EU-UNIT 701 is subject to NSPS 40 CFR 60 Subpart GG Standards of Performance for Stationary Gas Turbines because it was modified after October 3, 1977.
- EUAPU is subject to the stationary RICE emergency generator MACT standards, 40 CFR part 63 subpart ZZZZ.

Via onsite inspection, review of records, and discussion with staff, the facility appeared to be in compliance with the conditions of issued ROP No. # MI-ROP-N2168-2016.

NAME Chamran DATE 2/5/18 SUPERVISOR Edd