

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

N375847677

FACILITY: GREAT LAKES GAS TRANSMISSION STATION #10		SRN / ID: N3758
LOCATION: NAUBINWAY ROAD, NAUBINWAY		DISTRICT: Upper Peninsula
CITY: NAUBINWAY		COUNTY: MACKINAC
CONTACT: Brad Stermer, Sr. Environmental Specialist		ACTIVITY DATE: 01/18/2019
STAFF: Michael Conklin	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Targeted inspection for compliance with ROP		
RESOLVED COMPLAINTS:		

Facility: Great Lakes Gas Transmission Station #10 (SRN: N3758)

Location: Naubinway Road, Naubinway, MI

Contacts: Brad Stermer, Environmental Specialist, 906-235-3712

Neil McArthur, Technician, 906-477-6438

Sean Feneley, Technician, 906-477-6438

Regulatory Authority

Under the Authority of Section 5526 of Part 55 of NREPA, The Department of Environmental Quality may upon the presentation of their card, and stating the authority and purpose of the investigation, enter and inspect any property at reasonable times for the purpose of investigating either an actual or suspected source of air pollution or ascertaining compliance or noncompliance with NREPA, Rules promulgated thereunder, and the federal Clean Air Act.

Facility Description

Great Lakes Gas Transmission (GLGT), headquartered in Houston, Texas, is a natural gas pipeline company that transports natural gas from western Canada into Minnesota, Michigan, Wisconsin, and eastern Canada. The pipeline system is 2,115 miles long and has an average design capacity of approximately 2,400 million cubic feet per day. The company has been in business since 1967 and is currently owned by the TransCanada Corporation, a major North American energy company based out of Calgary, Alberta, Canada.

Compressor stations, or booster stations, are part of the natural gas utility process that transport natural gas from well sites, to processing facilities, to end users. They are strategically utilized to maintain pressure and flow throughout the pipeline network. GLGT operates fourteen compressor stations, with five in the Upper Peninsula of Michigan. The Naubinway Station #10 is one of five in the Upper Peninsula and is used to maintain pressure throughout GLGT's pipeline to end users. This facility is located 1.5 miles north of US-2 on Naubinway Road in Mackinac County, Michigan, an area that is in attainment for criteria pollutants. The source operates two natural-gas-fired turbine/compressor units. These systems are composed of a simple cycle gas turbine connected to a compressor by a shaft. The turbine provides the mechanical power via rotation of the shaft to power the compressor. Natural gas is fed through the compressor and exits at a higher pressure.

The facility also contains a natural gas-fired emergency engine, a natural gas-fired boiler, 4 natural gas-fired space heaters, and four above-ground storage tanks. The table below summarizes the emission units at this source.

Emission Unit ID	Description
EUUNIT1001	Rolls Royce Avon 76G natural gas fired-turbine with a peak load rating of 16,000 HP installed in 1969
EUUNIT1002	Rolls Royce Avon 76G natural gas fired-turbine with a peak load rating of 16,000 HP installed in 1971
EUGENERATOR	Waukesha Model F1197G natural gas-fired four stroke rich burn emergency genset with an engine power output of 255 HP
EUBOILER	2.7 MMBtu/hr natural gas-fired boiler
EULUBETK1	Lubricating oil storage tank for EUUNIT1001

EULUBETK2	Lubricating oil storage tank for EUUNIT1002
EUCOOLANTTK	Ambitrol propylene glycol-based coolant storage tank
FGSPACEHEATERS	4 natural gas-fired space heaters, each with a heat input less than 50 MMBtu/hr

The table below shows the facility's Michigan Air Emissions Reporting System (MAERS) 2017 submittal.

Pollutant	Pounds per Year (PPY)	Tons per Year (TPY)
CO	17094.47	8.55
NOx	13120.33	6.56
PM10	380.80	<1
PM2.5	380.80	<1
SO2	33.94	<1
VOC	121.43	<1

Compliance History

The facility has not received any violation notices in the past five years. The facility was last inspected in 2016 and was found to be in compliance with all applicable air quality rules and regulations at that time.

Inspection

On January 18, 2019, I (Michael Conklin) conducted a targeted, unannounced inspection on the GLGT Station #10 in Naubinway, MI. I arrived at the facility at 1:30 PM and met with station technicians, Neil McArthur and Sean Feneley. I explained to Mr. McArthur and Mr. Feneley that the purpose of the inspection was to ensure compliance with facility's ROP (MI-ROP-N3758-2018). We began by inspecting the permitted equipment held in the ROP and then reviewed equipment considered to be exempt from permitting. Mr. McArthur stated that there have been no changes to the facility since the last inspection in 2016.

Regulatory Analysis

GLGT Station #10 is currently subject to the Title V program and holds MI-ROP-N3758-2018 because the potential to emit (PTE) for nitrogen oxides and carbon monoxide exceeds 100 tpy. The facility is considered an area source for hazardous air pollutants (HAP) because the potential to emit of any single HAP is less than 10 tpy and aggregate HAP emissions are less than 25 tpy. EUUNIT1001 and EUUNIT1002 are not subject to 40 CFR Part 60 Subpart GG-NSPS for Stationary Gas Turbines because the turbines were constructed prior to October 3, 1977. EUUNIT1001 and EUUNIT1002 are not subject to the NESHAP Subpart YYYY for Stationary Combustion Turbines because the turbines are located at an area source for HAP emissions. EUGENERATOR is subject to 40 CFR Part 63 Subpart ZZZZ-NESHAP for Stationary Reciprocating Internal Combustion Engines because the emission unit is a stationary RICE at an area source of HAP emissions. EUGENERATOR is not subject to the NSPS Subpart JJJJ for Stationary Spark Ignition Internal Combustion Engines because the engine was constructed prior to June 12, 2006.

EUUNIT1001 and EUUNIT1002

These emission units were not operating during the time of the inspection. As stated in the ROP, they are required to burn only pipeline quality natural gas. During the inspection of these units, it was observed that the only source of fuel was piped gas from the main pipeline. This fulfills SC III.1 for both emission units. Records were requested for fuel usage for the past five years to fulfill SC VI.1. Total fuel usage for both units range from 140-523 MMSCF for a given year.

EUGENERATOR

GLGT is required to keep records of operation of EUGENERATOR per calendar year. EUGENERATOR can operate up to 100 hours per calendar year for maintenance and readiness testing, and 50 of those hours can be used for non-emergency situations. Hours of operation are tracked through a non-resettable hour meter on the unit. For the calendar year 2018, the engine was operated 6.2 hours during a power outage and 6.4 hours for maintenance and readiness testing. As of 12/7/2018, the engine has a total of 857.5 hours of operation. A RICE MACT maintenance record sheet was submitted that notes maintenance activity and completion date. Maintenance activities include inspecting spark plugs, air cleaner, belts, and hoses. The sheet also notes when an oil sample was taken and submitted for analysis

or if the oil was changed. This unit utilizes the oil analysis program to extend the specified oil change requirement in the RICE MACT. For calendar year 2018, an oil sample was taken on 9/11/2018 and submitted to Fluid Life for an oil analysis. The report stated that all tests were within the RICE MACT specifications.

The following table lists equipment that is considered to be exempt at the source.

Emission Unit	Description	ROP Exemption	PTI Exemption
EUBOILER	2.7 MMBtu/hr natural gas-fired boiler	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EULUBETK1	Lubricating oil storage tank for EUUNIT1001	R 336.1212(4)(c)	R 336.1284(2)(c)
EULUBETK2	Lubricating oil storage tank for EUUNIT1002	R 336.1212(4)(c)	R 336.1284(2)(c)
EUCOOLANTTK	Ambitrol propylene glycol-based coolant storage tank	R 336.1212(4)(c)	R 336.1284(2)(c)
FG-SPACEHEATERS	4 natural gas-fired space heaters, each with a heat input less than 50 MMBtu/hr	R 336.1212(4)(b)	R 336.1282(2)(b)(i)

GLGT has been prompt and complete in submitting semi-annual and annual report certifications.

Compliance

Based on this inspection, it appears that the Great Lakes Gas Transmission Station #10 is in compliance with MI-ROP-N3758-2018.

NAME

Michael J. Miller

DATE

1/28/2019

SUPERVISOR

EJL