

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

N375956015

FACILITY: GREAT LAKES GAS TRANSMISSION STATION #9		SRN / ID: N3759
LOCATION: 10888 T-65 PIPELINE RD, RAPID RIVER		DISTRICT: Marquette
CITY: RAPID RIVER		COUNTY: DELTA
CONTACT: Brad Stermer, Environmental Specialist		ACTIVITY DATE: 10/29/2020
STAFF: Michael Conklin	COMPLIANCE STATUS: Compliance	
SUBJECT: Targeted inspection for FY 21.		SOURCE CLASS: MAJOR
RESOLVED COMPLAINTS:		

Facility: Great Lakes Gas Transmission Station #9 (SRN: N3759)  
Location: 10888 T-65 Pipeline Rd, Rapid River, MI  
Contacts: Brad Stermer, Environmental Specialist, 906-235-3712  
Dan Nelson, Technician

**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 TC Energy, 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 Rapid River Station #9 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 mile north of US-2 on T-65 Pipeline Road in Delta County, Michigan, an area that is in attainment for criteria pollutants. The source operates one natural-gas-fired turbine/compressor unit. 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, seven natural gas-fired space heaters, and three above-ground storage tanks. The table below summarizes the emission units at this source.

Emission Unit ID	Description
EUUNIT901	Rolls Royce Avon 76G natural gas fired-turbine with a peak load rating of 16,000 HP installed in 1970
EUGENERATOR1	Waukesha Model F1197G natural gas-fired four stroke rich burn emergency genset with an engine power output of 255 HP installed in 1968
EUBOILER	1969 York Shipley SPWV90-N-93273 natural gas-fired boiler with a heat input rate of less than 50 MMBtu/hr
EULUBETK1	Lubricating oil storage tank for EUUNIT901
EUCOOLANTTK	Ambitrol propylene glycol-based coolant storage tank

EUCONDENSATETK	Natural gas condensate tank
FGSPACEHEATERS	7 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) 2019 submittal.

Pollutant	Pounds per Year (PPY)	Tons per Year (TPY)
CO	7401	3.7
NOx	28732	14.4
PM10	592	<1
PM2.5	592	<1
SO2	8.44	<1
VOC	188	<1

#### Compliance History

The facility has not received any violation notices in the past five years. The facility was last inspected on 02/13/2019 and was found to be in compliance with all applicable air quality rules and regulations at that time.

#### Inspection

On 10/29/2020, I (Michael Conklin) conducted a targeted inspection on the GLGT Station #9 in Rapid River, MI. I arrived at the facility at 11:45 PM and met with station technician, Dan Nelson. I explained to Mr. Nelson that the purpose of the inspection was to ensure compliance with facility's ROP (MI-ROP-N3759-2018). We began by inspecting the permitted equipment held in the ROP and then reviewed equipment considered to be exempt from permitting. Mr. Nelson stated that there have been no changes to the facility since the last inspection in 2019.

#### Regulatory Analysis

GLGT Station #9 is currently subject to the Title V program and holds MI-ROP-N3759-2018 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. EUUNIT901 is not subject to 40 CFR Part 60 Subpart GG-NSPS for Stationary Gas Turbines because the turbine was constructed prior to October 3, 1977. EUUNIT901 is not subject to the NESHAP Subpart YYYY for Stationary Combustion Turbines because the turbines are located at an area source for HAP emissions. EUGENERATOR1 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. EUGENERATOR1 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.

#### EUUNIT901

This emission unit was not operating during the time of the inspection. As stated in the ROP, this emission unit is required to burn only pipeline quality natural gas. During the inspection of this unit, it was observed that the only source of fuel was piped gas from the main pipeline. This fulfills SC III.1 for the emission unit. Records were requested for fuel usage for the past five years to fulfill SC VI.1. Total fuel usage for 03/01/2019 through 09/30/2020 is shown in the following table.

Month	Total Run Hours	Total Fuel (MCF)
March	7	28.07
August	33	461.75
September	641	81,719.81
October	42	5,736.93
May	2	102.22
June	25	3,481.99

July	117	15,872.72
August	16	2,395.88

**EUGENERATOR**

GLGT is required to keep records of operation of EUGENERATOR1 per calendar year. EUGENERATOR1 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. During the inspection the hour meter read 641 hours. For the calendar year 2019, the engine was operated a total of 13.2 hours. The engine was operated for 1.2 hours during an emergency power outage and 12 hours for maintenance and readiness testing. For 01/01/2020 through 10/2/2020, the engine was operated for a total of 9.1 hours for maintenance and readiness testing.

A RICE MACT maintenance record sheet is maintained 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. At the time of the inspection, the maintenance record sheet noted the oil was changed on 09/02/2020.

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

Emission Unit	Description	ROP Exemption	PTI Exemption
EUBOILER	1969 York Shipley SPWV90-N-93273 natural gas-fired boiler with a heat input rate of less than 50 MMBtu/hr	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EULUBETK1	Lubricating oil storage tank for EUUNIT901	R 336.1212(4)(c)	R 336.1284(2)(c)
EUCONDENSATETK	Natural gas condensate tank	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)
FGSPACEHEATERS	7 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 #9 is in compliance with MI-ROP-N3759-2018.

NAME Michael Carter DATE 11/9/2020 SUPERVISOR ESL