

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

N375931195

FACILITY: GREAT LAKES GAS TRANSMISSION STATION #9		SRN / ID: N3759
LOCATION: 10888 T-65 PIPELINE RD, RAPID RIVER		DISTRICT: Upper Peninsula
CITY: RAPID RIVER		COUNTY: DELTA
CONTACT: Robert Hardwick ,		ACTIVITY DATE: 07/30/2015
STAFF: Joe Scanlan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Unannounced inspection to determine compliance with MI-ROP-N3759-2012		
RESOLVED COMPLAINTS:		

FACILITY: Great Lakes Gas Transmission (GLGT) Rapid River Compressor Station #9 (ROP# MI-ROP-N3759-2012)

INSPECTION DATE: 7/30/2015

MDEQ-AQD STAFF:

- Joseph Scanlan, EQA

FACILITY REPRESENTATIVE:

- Robert Hardwick, Senior Technician, TransCanada

LOCATION:

The Rapid River Compressor Station #9 is located on T-65 Pipeline Road approximately 1 mile north of US-2, north of the unincorporated community of Rapid River, in Masonville Township, Delta County. The station and main vehicle ingress/egress are located on the east side of T-65. There is a 6' chain link security fence topped with barbed wire surrounding the property and a single gated entrance with an intercom system. The surrounding area is a mixture of rural and rural residential; directly to the west of the station is a small residential neighborhood of approximately 10-12 homes and a handful of other larger residential and wooded parcels scattered nearby.

SUMMARY OF OPERATIONS:

Rapid River Compressor Station #9 is one of five stationary compressor stations in the Upper Peninsula used to maintain pressure in GLGT's mainline line to and from storage facilities located in the U.P. or to local distribution companies or other end users. These compressor stations ensure transportation and delivery of gas remains steady and uninterrupted. Station #9 operates one natural gas-fired turbine 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 unit receives the gas from the pipeline transmission system, compresses the gas, and then discharges 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 can be operated 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, seven natural gas-fired space heaters and seven above-ground storage tanks.

HISTORY:

Rapid River Compressor Station #9 consists of a single natural gas-fired turbine. The Compressor Building houses EUUNIT901 (Unit 901) which was installed in 1970, when the facility was built. EUUNIT901 is a 16,000 horsepower Rolls Royce Avon 76G natural gas-fired turbine/compressor.

The four-stroke rich burn emergency generator (EUGENERATOR) is a 201 horsepower Waukesha F1197G and was installed in 1968 to provide power to the station in the event of a power outage. EUGENERATOR operates exclusively on natural gas. No air use permits were required at the time of installation of the generator, however it is now subject to the MACT standards in 40 CFR part 63 subpart ZZZZ for stationary RICE emergency generators.

REGULATORY APPLICABILITY:

ROP# MI-ROP-N3759-2012

Rapid River Compressor Station #9 turbine compressor EUUNIT901 is 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 because the potential to emit of 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 is less than 25 tons per year. This source is subject to Prevention of Significant Deterioration (PSD) regulations because the stationary source has the potential to emit NOx and CO greater than 100 tons per year.

EUGENERATOR is subject to the stationary RICE emergency generator MACT standards, 40 CFR part 63 subpart ZZZZ.

ARRIVAL:

On 7/30/2015 I conducted a scheduled visit of GLGT Rapid River Compressor Station #9. PPE worn during this inspection included steel-toed boots, safety vest, safety glasses and hardhat. The turbines were not running therefore no hearing protection was required.

TransCanda owns and operates this facility. My contact at the site was TransCanada employee Mr. Robert Hardwick. Mr. Hardwick informed me that the turbine was not in operation at the time of our visit. The turbine does not operate often during the warmer seasons and only operates occasionally to boost pressure in the system during these times. During peak demand times when the outside temperature drops and there is a much higher need for natural gas (residential/commercial building heat, etc.) the turbine may operate more frequently.

Prior to escorting us to the turbine buildings, Mr. Hardwick disengaged the facility's 'fire eyes' in order to prevent the emergency shutdown system from coming online while I took photographs (camera flash was a concern). Materials limits for turbines EUUNIT901 require the unit to burn only natural gas, which is the only fuel available. EUUNIT901 is a stationary Rolls Royce Avon 76G turbine compressor housed in its own building.

EU DETAILS:

No.	Emission Unit	Description	Permit #	Comp. Status
1	EUUNIT901	Rolls Royce Avon 76G natural gas-fired turbine/compressor	ROP-N3759-2008	C
2	EUGENERATOR	Waukesha Model F1197G natural gas-fired 201 hp	40 CFR 63 subpart ZZZZ	C

Materials Limit

The turbine compressor EUUNIT901 shall fire only natural gas to ensure compliance with the visible emission limitations of Rule 301.

- EUUNIT901 continues to operate exclusively on natural gas.

Monitoring/Recordkeeping

Records of all fuel types fired in EUUNIT901 shall be maintained on file for a period of five years. Mr. Hardwick provided records when requested.

- EUUNIT901 operated a total of 0 hours in July 2015 using a total of 0 MCF of natural gas and was last operated at idle on February 2015 for 0.75 hours using 0.0241 MMSCF of fuel. Prior to this, the unit operated in January 2015 for 62.42 hours using 9.216 MMSCF of fuel. Total hours for the last 12 months (7/30/2014 through 7/30/2015) were

71.25 with a total fuel consumption of 10.42 MMSCF.

EUGENERATOR records shall be maintained on file for a period of five years. Records include hours of operation in emergency and non-emergency modes and any maintenance performed on the stationary emergency generator.

- EUGENERATOR operated a total of 7.8 hours in non-emergency mode and 1.3 hours in emergency mode over the last 7 months (total hrs = 9.1)
- EUGENERATOR had the following maintenance performed over the last 12 months:
 - 8/15/14 spark plug inspection--plugs gapped, no concerns;
 - 8/15/14 air cleaner inspection--air cleaner like new;
 - 8/15/14 belts and hoses inspection--no issues;
 - 8/15/14 oil sample collected--OK

SUMMARY:

No violations of ROP #MI-ROP-N3759-2012 were observed at the time of this inspection and the facility appears to be in compliance with the ROP.

NAME Joseph S. Sorenson

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SUPERVISOR _____