

State Registration Number
N3759

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-N3759-2023

Great Lakes Gas Transmission, LP

Great Lakes Gas Transmission Station #9 – Rapid River Compressor Station

State Registration Number (SRN): N3759

Located at

10888 T-65 Pipeline Road, Rapid River, Delta County, Michigan 49878

Permit Number: MI-ROP-N3759-2023

Staff Report Date: June 12, 2023

This Staff Report is published in accordance with Sections 5506 and 5511 of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Specifically, Rule 214(1) of the administrative rules promulgated under Act 451, requires that the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), prepare a report that sets forth the factual basis for the terms and conditions of the Renewable Operating Permit (ROP).

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RENEWABLE OPERATING PERMIT

JUNE 12, 2023 - STAFF REPORT

ROP Number

MI-ROP-N3759-2023

Purpose

Major stationary sources of air pollutants, and some non-major sources, are required to obtain and operate in compliance with an ROP pursuant to Title V of the federal Clean Air Act; and Michigan’s Administrative Rules for Air Pollution Control promulgated under Section 5506(1) of Act 451. Sources subject to the ROP program are defined by criteria in Rule 211(1). The ROP is intended to simplify and clarify a stationary source’s applicable requirements and compliance with them by consolidating all state and federal air quality requirements into one document.

This Staff Report, as required by Rule 214(1), sets forth the applicable requirements and factual basis for the draft ROP terms and conditions including citations of the underlying applicable requirements, an explanation of any equivalent requirements included in the draft ROP pursuant to Rule 212(5), and any determination made pursuant to Rule 213(6)(a)(ii) regarding requirements that are not applicable to the stationary source.

General Information

Stationary Source Mailing Address:	Great Lakes Gas Transmission Station #9 Rapid River Compressor Station 10888 T-65 Pipeline Road Rapid River, Michigan 49878
Source Registration Number (SRN):	N3759
North American Industry Classification System (NAICS) Code:	486210
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	202300033
Responsible Official:	Keith R. Mossman, Director US Pipeline Operations - Great Lakes Region 248-205-4520
AQD Contact:	Lauren Luce, Environmental Quality Analyst 906-202-0943
Date Application Received:	February 2, 2023
Date Application Was Administratively Complete:	February 2, 2023
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	June 12, 2023
Deadline for Public Comment	July 12, 2023

Source 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 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 Compressor 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. The Rolls-Royce Avon76G turbine was installed in 1970 and has a maximum ambient rating of 16,000 horsepower. 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. The engine is a four-stroke, rich burn, Waukesha generator rated at 201 horsepower. Exempt equipment consists of a natural gas-fired boiler, seven natural gas-fired space heaters, and three above-ground storage tanks.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2022**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	55.04
Lead (Pb)	0
Nitrogen Oxides (NO _x)	14.8
Particulate Matter (PM)	<1
Sulfur Dioxide (SO ₂)	<1
Volatile Organic Compounds (VOCs)	<1

The source is a true minor source of HAPs, thus no HAP emissions data is listed.

See Parts C and D in the ROP for summary tables of all processes at the stationary source that are subject to process-specific emission limits or standards.

Regulatory Analysis

The following is a general description and history of the source. Any determinations of regulatory non-applicability for this source are explained below in the Non-Applicable Requirement part of the Staff Report and identified in Part E of the ROP.

The stationary source is in Delta County, which is currently designated by the United States Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70, because the potential to emit for nitrogen oxides exceeds 100 tons per year.

The stationary source is a minor source of HAP emissions because the potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act, is less than 10 tons per year and the potential to emit of all HAPs combined are less than 25 tons per year.

No emission units at the stationary source are currently subject to the Prevention of Significant Deterioration (PSD) regulations of The Michigan Air Pollution Control Rules Part 18, Prevention of Significant Deterioration of Air Quality or 40 CFR 52.21 because the process equipment was constructed/installed prior to June 19, 1978, the promulgation date of the PSD regulations.

Although EUUNIT901 and EUGENERATOR1 were installed after August 15, 1967, this equipment was exempt from New Source Review (NSR) permitting requirements at the time it was installed. At the time of installation (1970 for EUUNIT901 and 1968 for EUGENERATOR1), internal combustion engines were exempt from the requirement to obtain an approved Air Use Permit by *Rule 36(c): Rule 336.36 Permit system exemptions; miscellaneous. The permit system does not apply to:(c) Internal combustion engines.* EUUNIT901 is considered an internal combustion engine. The pre-1980 Rule 36 is now R 336.1285(2)(g). Future modifications of this equipment may be subject to NSR.

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 at the stationary source is subject to the National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ. The AQD is not delegated the regulatory authority for area source MACT ZZZZ.

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.

The monitoring conditions contained in the ROP are necessary to demonstrate compliance with all applicable requirements and are consistent with the "Procedure for Evaluating Periodic Monitoring Submittals."

No emission units have emission limitations or standards that are subject to the federal Compliance Assurance Monitoring rule pursuant to 40 CFR Part 64, because all emission units at the stationary source either do not have a control device or those with a control device do not have potential pre-control emissions over the major source thresholds.

Please refer to Parts B, C and D in the draft ROP for detailed regulatory citations for the stationary source. Part A contains regulatory citations for general conditions.

The following is a discussion of significant changes made from the 2018 ROP.

EUPIPEMAINT, FGRULE285(2)(mm)

The emission unit EUPIPEMAINT was added along with flexible group FGRULE285(2)(mm). GLGT performs routine and emergency venting of natural gas from transmission and distribution systems. GLGT requested these emission units and flexible group be added as exempt processes from the requirements of Rule 201 under Rule 285(2)(mm).

FGMACTZZZZ

The flexible group, FGMACTZZZZ, was updated with MACT language from 40 CFR Part 63, Subpart ZZZZ applicable to EUGENERATOR1.

Source-Wide Permit to Install (PTI)

Rule 214a requires the issuance of a Source-Wide PTI within the ROP for conditions established pursuant to Rule 201. All terms and conditions that were initially established in a PTI are identified with a footnote designation in the integrated ROP/PTI document.

Streamlined/Subsumed Requirements

This ROP does not include any streamlined/subsumed requirements pursuant to Rules 213(2) and 213(6).

Non-applicable Requirements

Part E of the ROP lists requirements that are not applicable to this source as determined by the AQD, if any were proposed in the ROP Application. These determinations are incorporated into the permit shield provision set forth in Part A (General Conditions 26 through 29) of the ROP pursuant to Rule 213(6)(a)(ii).

Processes in Application Not Identified in Draft ROP

The following table lists processes that were included in the ROP Application as exempt devices under Rule 212(4). These processes are not subject to any process-specific emission limits or standards in any applicable requirement.

PTI Exempt Emission Unit ID	Description of PTI Exempt Emission Unit	Rule 212(4) Citation	PTI Exemption Rule Citation
EUBOILER	York Shipley Boiler, Model SPWV80-N-93273, 3.35 MMBTU/hr	R 336.1212(4)(c)	R 336.1282(b)(i)
EUSPACEHEATERS	Seven Natural Gas-Fired Space heaters, 0.150 MMBTU/hr or less, each	R 336.1212(4)(c)	R 336.1282(b)(i)
AMBITROLTK	Ambitrol (Boiler Expansion Tank), 105 gal	R 336.1212(4)(d)	R 336.1284(2)(i)
OILTK	Make Up Oil Tank, 35 gal	R 336.1212(4)(d)	R 336.1284(2)(i)
CONDENSATETK	Natural Gas Condensate, 1,080 gal	R 336.1212(4)(d)	R 336.1284(2)(i)

Draft ROP Terms/Conditions Not Agreed to by Applicant

This draft ROP does not contain any terms and/or conditions that the AQD and the applicant did not agree upon pursuant to Rule 214(2).

Compliance Status

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements as of the effective date of this ROP.

Action taken by EGLE, AQD

The AQD proposes to approve this ROP. A final decision on the ROP will not be made until the public and affected states have had an opportunity to comment on the AQD's proposed action and draft permit. In addition, the USEPA is allowed up to 45 days to review the draft ROP and related material. The AQD is not required to accept recommendations that are not based on applicable requirements. The delegated decision maker for the AQD is Michael Conklin, Marquette District Supervisor. The final determination for ROP approval/disapproval will be based on the contents of the ROP Application, a judgment that the

stationary source will be able to comply with applicable emission limits and other terms and conditions, and resolution of any objections by the USEPA.

State Registration Number
N3759

RENEWABLE OPERATING PERMIT
JULY 18, 2023 - STAFF REPORT ADDENDUM

ROP Number
MI-ROP-N2759-2023

Purpose

A Staff Report dated June 12, 2023, was developed to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by Rule 214(1) of the administrative rules promulgated under Act 451. The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 30-day public comment period as described in Rule 214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

General Information

Responsible Official:	Keith R. Mossman, Director US Pipeline Operations - Great Lakes Region 248-205-4520
AQD Contact:	Lauren Luce, Environmental Quality Analyst 906-202-0943

Summary of Pertinent Comments

No pertinent comments were received during the 30-day public comment period.

Changes to the June 12, 2023 Draft ROP

No changes were made to the draft ROP.