

State Registration Number
N2586

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-N2586-
2020

Holland Board of Public Works 48th Street Peaking Station

State Registration Number (SRN): N2586

Located at

491 East 48th Street, Holland, Allegan County, Michigan 49423

Permit Number: MI-ROP-N2586-2020

Staff Report Date: April 20, 2020

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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Michigan Department of
Environment, Great Lakes, and Energy
Air Quality Division

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April 20, 2020 - STAFF REPORT

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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:	Holland Board of Public Works 625 Hastings Avenue Holland, Michigan 49423
Source Registration Number (SRN):	N2586
North American Industry Classification System (NAICS) Code:	221112
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201900007
Responsible Official:	Joel Davenport, Operations Director 616-355-1252
AQD Contact:	Cody Yazzie, Environmental Engineer 269-312-2754
Date Application Received:	January 17, 2019
Date Application Was Administratively Complete:	January 17, 2019
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	April 20, 2020
Deadline for Public Comment:	May 20, 2020

Source Description

The Holland Board of Public Works, 48th Street Peaking Station (Facility), consists of three combustion turbine generators. One turbine is a gas-fired unit with an output of approximately 80 megawatts and uses dry low NOx combustion technology. The other two turbines are oil/gas fired with an output of approximately 40 megawatts each. These two turbines utilize water injection to control NOx emissions. The turbines are equipped with continuous emission monitoring systems (CEMs) to measure NOx emissions. The three turbines provide electrical power for the municipality. The Facility is located in an industrial park approximately 2.5 miles southeast of downtown Holland.

The water injection system requires that the water be treated to operate through the system. Previously the Facility had equipment on site for the demineralization and treatment of the water. This also included storage of Hydrochloric Acid (32 percent). In 2018 the Facility started to get deliveries of Reverse Osmosis water that is used in the water injection system. In 2019 the facility physically removed the tank that stored the Hydrochloric Acid.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2018**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	43.62
Lead (Pb)	0.00
Nitrogen Oxides (NO _x)	17.37
Particulate Matter (PM)	4.37
Sulfur Dioxide (SO ₂)	0.17
Volatile Organic Compounds (VOCs)	0.70

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 facility is located in the portion of Allegan County is currently designated by the United States Environmental Protection Agency (USEPA) as a non-attainment area with respect to the 8-hour ozone standard.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70, because the potential to emit of CO, NOx, and Sulfur dioxide 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.

The stationary source is considered a "synthetic minor" source in regards to the Prevention of Significant Deterioration regulations of 40 CFR 52.21 because the stationary source accepted legally enforceable permit conditions limiting the potential to emit of NOx and sulfur dioxide to less than 250 tons per year.

At this time, there are no Greenhouse Gases applicable requirements to include in the ROP. The mandatory Greenhouse Gas Reporting Rule under 40 CFR Part 98, is not an ROP applicable requirement and is not included in the ROP.

EUTURBINE7, EUTURBINE8, and EUTURBINE9 at the stationary source are subject to the Standards of Performance for Stationary Gas Turbines, promulgated in 40 CFR Part 60, Subparts A and GG. The Facility installed new NOX CEMs analyzers in May 2018. Relative accuracy test audits (RATA) were completed in June 2018 following analyzer replacement.

EUOILTANKS at the stationary source is subject to the Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels), promulgated in 40 CFR Part 60, Subparts A and Kb.

FGCI-ENGINES at the stationary source is subject to the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ (RICE Area Source MACT). The ROP contains special conditions provided by Holland Board of Public Works 48th Street Peaking Station in their application for applicable requirements from 40 CFR Part 63, Subparts A and ZZZZ. The AQD is not delegated the regulatory authority for this area source MACT, therefore the special conditions for the RICE Area Source MACT contained in FGCI-ENGINES were not reviewed by the AQD.

EUTURBINE7, EUTURBINE8, and EUTURBINE9 at the stationary source are subject to the federal Acid Rain program promulgated in 40 CFR Part 72. EUTURBINE7, EUTURBINE8, and EUTURBINE9 at the stationary source are also subject to the Cross-State Air Pollution Rule NO_x Annual Trading Program pursuant to 40 CFR Part 97, Subpart AAAAA; the Cross-State Air Pollution Rule NO_x Ozone Season Group 2 Trading Program pursuant to 40 CFR Part 97, Subpart EEEEE; and the Cross-State Air Pollution Rule SO₂ Group 1 Trading Program pursuant to 40 CFR Part 97, Subpart CCCCC.

The 95 PPMV emission limitation from EUTURBINE7 and EUTURBINE8 in FGUNITS-7&8 at the stationary source are exempt from the federal Compliance Assurance Monitoring (CAM) regulation pursuant to 40 CFR 64.2(b)(1)(vi), because the 95 PPMV limit is required to be monitored by a continuous Emission Monitoring System (CEMS) and meets the CAM exemption for a continuous compliance determination method. EUTURBINE9 is not subject to CAM because the emission unit does not have any potential pre-control emissions over the major source thresholds.

The most recent Violation Notice (VN) was sent on August 8, 2018. This VN was sent because the facility reported that on June 29, 2018 that they exceeded the 22 ppm NO_x emission limit on EUTURBINE9 over a seven-hour period and emissions ranged from 168.2 ppm to 210 ppm of NO_x. The facility's response indicated that the NO_x analyzer had been replaced in mid-May of 2018 and when the new Thermo analyzer exceeded more than 10% over full scale range it generated an OverRange flag in the CEMS Stackvision software, and the minute data was invalidated. This prevented the calculation on the NO_x value and left it at "zero" for the entire seven-hour period. The facility has added NO_x readings to the Operations control screen, added a separate parameter alarm, and changed the configuration in the analyzer so that it clams the output at 0% when NO_x readings goes over scale. The facility appears to have fixed the problem and has not had any other issues regarding an invalid reading on Unit 9 CEMs. The Kalamazoo District Office has evaluated the facility's response to the VN and considers the violation to be resolved.

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."

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.

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.

The following table lists all individual PTIs that were incorporated into previous ROPs. PTIs issued after the effective date of ROP No. MI-ROP-N2586-2015a are identified in Appendix 6 of the ROP.

PTI Number			
314-99A	341-90A		

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

There were no processes listed in the ROP Application as exempt devices under Rule 212(4). Exempt devices 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
EU-Gas-Heater	20,000 BTU/hr	R 336.1212(4)(c)	R 336.1282(2)(b)(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 the 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 Rex Lane, Kalamazoo 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.

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May 27, 2020 - STAFF REPORT ADDENDUM

Purpose

A Staff Report dated April 20, 2020, 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:	Joel Davenport, Operations Director 616-355-1252
AQD Contact:	Cody Yazzie, Environmental Engineer 269-312-2754

Summary of Pertinent Comments

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

Changes to the April 20, 2020 Draft ROP

No changes were made to the draft ROP.