

State Registration Number  
B7977

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
MI-ROP-B7977-2022

**Zeeland Board of Public Works**

State Registration Number (SRN): B7977

Located at

347 East Washington Avenue, Zeeland, Ottawa County, Michigan 49464

Permit Number: MI-ROP-B7977-2022

Staff Report Date: January 24, 2022

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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**January 24, 2022 - STAFF REPORT**

ROP Number

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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:	Zeeland Board of Public Works 350 East Washington Avenue Zeeland, Michigan 49464
Source Registration Number (SRN):	B7977
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:	202100106
Responsible Official:	Andrew Boatright, General Manager 616-722-6212
AQD Contact:	Kaitlyn DeVries, Senior Environmental Quality Analyst 616-558-0552
Date Application Received:	July 8, 2021
Date Application Was Administratively Complete:	July 8, 2021
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	January 24, 2022
Deadline for Public Comment:	February 23, 2022

## Source Description

Zeeland Board of Public Works (ZBPW) is a municipally owned and operated electricity generating station consisting of seven (7) dual fuel-fired engines. The engines are primarily used for peaking and are run based upon economics. All of the engines have the capability to burn both diesel fuel and natural gas. Low sulfur diesel fuel is used for ignition of the internal combustion engines, and then they switch over to natural gas. The total capacity for the seven (7) units combined is 24,000 kW, and all of the engines utilize catalytic oxidation to control emissions.

The plant is located in the City of Zeeland in Southwest Ottawa County. To the north and east of the plant are industrial areas and to the west and south are residential areas.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2020**.

### **TOTAL STATIONARY SOURCE EMISSIONS**

<b>Pollutant</b>	<b>Tons per Year</b>
Carbon Monoxide (CO)	1
Lead (Pb)	<0.01
Nitrogen Oxides (NO <sub>x</sub> )	12.6
Particulate Matter (PM)	0.1
Sulfur Dioxide (SO <sub>2</sub> )	0.02
Volatile Organic Compounds (VOCs)	0.2

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2020 by AQD:

<b>Individual Hazardous Air Pollutants (HAPs) **</b>	<b>Tons per Year</b>
Benzene	<0.01
Formaldehyde	0.01
Toluene	<0.01
<b>Total Hazardous Air Pollutants (HAPs)</b>	<b>&lt; 0.01</b>

\*\*As listed pursuant to Section 112(b) of the federal Clean Air Act.

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 Ottawa 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 of 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.

EUENGINE001, EUENGINE002, EUENGINE007, and EUENGINE008 were installed prior to August 15, 1967. As a result, this equipment is considered "grandfathered" and is not subject to New Source Review (NSR) permitting requirements. However, future modifications of this equipment may be subject to NSR.

Although EUENGINE009 and EUENGINE010 were installed after August 15, 1967, this equipment was exempt from New Source Review (NSR) permitting requirements at the time it was installed. However, future modifications of this equipment may be subject to NSR.

EUENGINE011 was installed in 1981 and received an NSR permit. The engine was not subject to R 336.1702, Best Available Control Technology (BACT) review nor subject to R 336.1225 toxic analysis at the time of permitting, as the permit pre-dates the effective dates of these rules. However, future modifications of this equipment may be subject to these rules.

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. EUENGINE011, Engine 11, was installed after the promulgation dates; however, it was not considered a major source with regards to PSD (40 CFR 52.21) regulations during the New Source Review (NSR) permitting evaluation. Modifications of the process equipment at the stationary source may be subject to the PSD requirements.

All of the engines (EUENGINE001, EUENGINE002, EUENGINE007, EUENGINE008, EUENGINE009, EUENGINE010, and EUENGINE011) at the stationary source are subject to R 336.1401(1) and utilize low-sulfur diesel fuel to comply with this requirement.

EUENGINE001, EUENGINE002, EUENGINE007, EUENGINE008, EUENGINE009, EUENGINE010, and EUENGINE011 at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ (RICE Area Source MACT). The ROP contains applicable special conditions in FGRICEMACT provided by Zeeland Board of Public Works from 40 CFR Part 63, Subparts Z and ZZZZ. The initial performance testing for each engine was successfully completed in September 2013. Previous ROP renewals incorporated provisions clarifying the limited use categorization of these engines (and subsequent testing schedule) if each engine is documented to operate less than 100 hours per year.

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."

The emission limit for Carbon Monoxide (CO) at the stationary source with the underlying applicable requirement of 40 CFR Part 63, Subpart ZZZZ from FGRICEMACT is exempt from the federal Compliance Assurance Monitoring (CAM) regulation pursuant to 40 CFR 64.2(b)(1)(i) because the emission limit meets the CAM exemption for the Maximum Achievable Control Technology (MACT) proposed after November 15, 1990.

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-B7977-2017 are identified in Appendix 6 of the ROP.

PTI Number			
144-79			

### **Streamlined/Subsumed Requirements**

The following table lists explanations of any streamlined/subsumed requirements included in the ROP pursuant to Rules 213(2) and 213(6). All subsumed requirements are enforceable under the streamlined requirement that subsumes them.

### **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
EUWATERHEATER	1.46 MMBTU/hr natural gas-fired water heater	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 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 Heidi Hollenbach, Grand Rapids 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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**RENEWABLE OPERATING PERMIT**  
**February 24, 2022 - STAFF REPORT ADDENDUM**

ROP Number  
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**Purpose**

A Staff Report dated January 24, 2022, 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:	Andrew Boatright, General Manager 616-722-6212
AQD Contact:	Kaitlyn DeVries, Senior Environmental Quality Analyst 616-558-0552

**Summary of Pertinent Comments**

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

**Changes to the January 24, 2022 Draft ROP**

No changes were made to the draft ROP.