

State Registration Number  
P0582

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
MI-ROP-P0582-2019a

**Wolverine Power Supply Cooperative Incorporated  
Alpine Power Plant**

State Registration Number (SRN): P0582

Located at

7432 M-32, Elmira, Otsego County, Michigan 49730

Permit Number: MI-ROP-P0582-2019a

Staff Report Date: June 3, 2019

Amended Date: April 8, 2021

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

State Registration Number

P0582

**RENEWABLE OPERATING PERMIT**

**JUNE 3, 2019 - STAFF REPORT**

ROP Number

MI-ROP-P0582-2019

**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:	Wolverine Power Supply Cooperative Incorporated Alpine Power Plant 7432 M-32 Elmira, Michigan 49730
Source Registration Number (SRN):	P0582
North American Industry Classification System (NAICS) Code:	221112
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Initial Issuance
Application Number:	201700048
Responsible Official:	Mr. Dan Calverley, Vice President of Generation 231-775-5700
AQD Contact:	Mr. William Rogers, Environmental Quality Analyst 989-705-3406
Date Application Received:	March 27, 2017
Date Application Was Administratively Complete:	April 7, 2017
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	June 3, 2019
Deadline for Public Comment:	July 3, 2019

## **Source Description**

Wolverine Power Supply Cooperative, Inc., Alpine Power Plant is a natural gas-fired electric utility located on Highway M-32 a bit more than a mile east of Elmira, Michigan. The facility is located in a rural area with on the order of ten residences within a mile.

The facility includes two natural gas fired, simple cycle turbines. Each turbine has a peak heat input of 2,045 MMBTU/hr and drives an electrical generator rated at 203 MW. The turbines are restricted to burning only pipeline quality natural gas.

The facility generates electricity and supplies it to the general electrical power grid. This facility is designed to operate primarily at times of peak electrical demand. It is therefore meant to operate for limited periods of time, not continuously.

In addition to the turbine-powered electrical generators, the facility includes two natural gas fired fuel heaters, rated at 3.5 MMBTU/hr heat input each, to preheat fuel before it goes to the generators; a diesel engine powering an emergency generator rated at 1,500 kW; a 347 HP diesel engine powering an emergency fire pump; and assorted support equipment, including natural gas-fired building heaters.

All the equipment listed above was installed in 2016.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2017**.

### **TOTAL STATIONARY SOURCE EMISSIONS**

<b>Pollutant</b>	<b>Tons per Year</b>
Carbon Monoxide (CO)	81.4
Lead (Pb)	0
Nitrogen Oxides (NO <sub>x</sub> )	88.9
Particulate Matter (PM)	5.1
Sulfur Dioxide (SO <sub>2</sub> )	1.2
Volatile Organic Compounds (VOCs)	0.8

This source is a true minor for Hazardous Air Pollutants (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 Otsego 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 carbon monoxide and 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.

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

EUEMERGEN and EUFIREPUMP at the stationary source are subject to the Standards of Performance for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and IIII.

EUEMERGEN and EUFIREPUMP at the stationary source are subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ. Compliance with this Subpart is demonstrated by compliance with 40 CFR Part 60, Subpart IIII.

EUCTG1 and EUCTG2 at the stationary source are subject to the Standards of Performance for Stationary Combustion Turbines promulgated in 40 CFR Part 60, Subparts A and KKKK.

EUCTG1 and EUCTG2 at the stationary source are subject to the Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units promulgated in 40 CFR Part 60, Subparts A and TTTT.

EUCTG1 AND EUCTG2 at the stationary source are subject to the federal Acid Rain program promulgated in 40 CFR Part 72.

EUCTG1 and EUCTG2 at the stationary source are subject to the Cross-State Air Pollution Rule NO<sub>x</sub> Annual Trading Program pursuant to 40 CFR Part 97, Subpart AAAAA.

EUCTG1 and EUCTG2 at the stationary source are subject to the Cross-State Air Pollution Rule NO<sub>x</sub> Ozone Season Group 2 Trading Program pursuant to 40 CFR Part 97, Subpart EEEEE.

EUCTG1 and EUCTG2 at the stationary source are subject to the Cross-State Air Pollution Rule SO<sub>2</sub> Group 1 Trading Program pursuant to 40 CFR Part 97, Subpart CCCCC.

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."

This facility received Permit to Install 206-14 under the State of Michigan New Source Review Program. PI 206-14 was issued May 15, 2015. Evaluation of that permit prior to issuance included a public comment period, evaluation of potential toxic air emissions, and analysis for Best Available Control Technology.

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.

### **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.

<b>PTI Exempt Emission Unit ID</b>	<b>Description of PTI Exempt Emission Unit</b>	<b>Rule 212(4) Citation</b>	<b>PTI Exemption Rule Citation</b>
EUOFFICEHEAT1	Natural gas-fired furnace for office heat, 104,400 BTU/hr heat input	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUOFFICEHEAT2	Natural gas-fired furnace for office heat, 104,400 BTU/hr heat input	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUSHOPHEAT1	Natural gas-fired space heater for shop heat, 100,000 BTU/hr heat input	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUSHOPHEAT2	Natural gas-fired space heater for shop heat, 100,000 BTU/hr heat input	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUSHOPHEAT3	Natural gas-fired space heater for shop heat, 100,000 BTU/hr heat input	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUSHOPHEAT4	Natural gas-fired space heater for shop heat, 100,000 BTU/hr heat input	R 336.1212(4)(b)	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 Shane Nixon, Cadillac / Gaylord 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.

**RENEWABLE OPERATING PERMIT**

**JULY 9, 2019 - STAFF REPORT ADDENDUM**

**Purpose**

A Staff Report dated June 3, 2019, 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 45-day EPA 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:	Mr. Dan Calverley, Vice President of Generation 231-775-5700
AQD Contact:	Mr. William Rogers, Environmental Quality Analyst 989-705-3406

**Summary of Pertinent Comments**

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

**Changes to the June 3, 2019 Draft ROP**

No changes were made to the draft ROP.

State Registration Number  
P0582

**RENEWABLE OPERATING PERMIT**  
**APRIL 8, 2021 - STAFF REPORT FOR RULE 216(2)**  
**MINOR MODIFICATION**

ROP Number  
MI-ROP-P0582-2019a

**Purpose**

On August 28, 2019, the Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-P0582-2019 to Wolverine Power Supply Cooperative Incorporated - Alpine Power Plant pursuant to Rule 214 of the administrative rules promulgated under Act 451. Once issued, a company is required to submit an application for changes to the ROP as described in Rule 216. The purpose of this Staff Report is to describe the changes that were made to the ROP pursuant to Rule 216(2).

**General Information**

Responsible Official:	Joseph J. Baumann, Vice President and General Counsel 231-775-5700
AQD Contact:	Caryn Owens, Environmental Engineer 231-878-6688
Application Number:	202100026
Date Application for Minor Modification was Submitted:	January 29, 2021

**Regulatory Analysis**

The AQD has determined that the change requested by the stationary source meets the qualifications for a Minor Modification pursuant to Rule 216(2).

**Description of Changes to the ROP**

Minor Modification Number 202100026 was to incorporate PTI 100-20, which was to allow the use of rain caps for the stacks of each process heater (EUFUELHTR1 and EUFUELHTR2) in FGFUELHTR.

**Compliance Status**

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements associated with the emission unit(s) involved with the change as of the date of approval of the Minor Modification to the ROP.

**Action Taken by EGLE**

The AQD proposes to approve a Minor Modification to ROP No. MI-ROP-P0582-2019, as requested by the stationary source. A final decision on the Minor Modification to the ROP will not be made until any affected states and the USEPA has been allowed 45 days to review the proposed changes to the ROP. The delegated decision maker for the AQD is the District Supervisor. The final determination for approval of the Minor Modification will be based on the contents of the permit application, a judgment that the stationary source will be able to comply with applicable emission limits and other requirements, and resolution of any objections by any affected states or the USEPA.