

State Registration Number  
B1966

Michigan Department of Environmental Quality  
Air Quality Division  
**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
MI-ROP-B1966-2018

**White Pine Electric Power, LLC**

SRN: B1966

Located at

33707 Power Plant Road, White Pine, Ontonagon County, Michigan 49971

Permit Number: MI-ROP-B1966-2018

Staff Report Date: April 23, 2018

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) requires that the Michigan Department of Environmental Quality (MDEQ), 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**

**APRIL 23, 2018 - STAFF REPORT**

**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 of 1990 and Michigan's Administrative Rules for Air Pollution Control pursuant to 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:	White Pine Electric Power, LLC P.O. Box 695, 29639 Willow Road White Pine, Michigan 49971
Source Registration Number (SRN):	B1966
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:	201700131
Responsible Official:	Zachary Halkola, Chief Operating Officer 906-885-7905
AQD Contact:	Shamim Ahammod, Environmental Engineer 906-235-1377
Date Application Received:	October 20, 2017
Date Application Was Administratively Complete:	October 20, 2017
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	April 23, 2018
Deadline for Public Comment:	May 23, 2018

## Source Description

White Pine Electric Power, LLC is a 40-megawatt, natural gas-fired electrical power plant, located in Carp Township, Ontonagon County, Michigan, approximately six miles south of Lake Superior. It was constructed in the 1950's as a coal-fired power plant to provide electricity for the Copper Range Company/BHP Copper-White Pine Refinery, Inc. Electrical power is produced by two 220 MMBtu/hour Riley Power boilers (EU-PP05 and EU-PP06) and three (3) turbine generator sets. In 2004, the ownership control of the power plant was transferred to White Pine Electric Power, LLC.

In 2014, White Pine Electric Power, LLC entered a Consent Agreement and Final Order (CAFO) with USEPA Region V (Docket No. CAA-05-2014-0044). A requirement of the CAFO required White Pine Electric to remove all coal firing capability for EU-PP05 (Riley Power Boiler #1), EU-PP06 (Riley Power Boiler #2) and EU-PP07 (Kewanee Boiler) and convert the units to natural gas fired only.

Shortly after the Riley Power boilers were converted to natural gas, the Midcontinent Independent System Operator (MISO) filed with the Federal Energy Regulatory Commission (FERC) to terminate the system support resource (SSR) designation for the 20-megawatt White Pine Unit 2 electric generator. In late 2016, MISO filed with FERC to terminate the SSR designation for the 20-megawatt White Pine Unit 1 electric generator. The plant has not operated since November 2016.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2016**.

### **TOTAL STATIONARY SOURCE EMISSIONS**

<b>Pollutant</b>	<b>Tons per Year</b>
Carbon Monoxide (CO)	3.21
Lead (Pb)	0
Nitrogen Oxides (NO <sub>x</sub> )	3.82
Particulate Matter (PM)	0.29
Sulfur Dioxide (SO <sub>2</sub> )	0.02
Volatile Organic Compounds (VOCs)	0.21

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2016 by AQD:

<b>Individual Hazardous Air Pollutants (HAPs) **</b>	<b>Tons per Year</b>
<b>Total Hazardous Air Pollutants (HAPs)</b>	<b>&lt;1</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 located in Ontonagon County, which is currently designated by the U.S. 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 all criteria pollutants exceeds 100 tons per year.

EUPP03 (IBW Boiler) at the stationary source was subject to review under the Prevention of Significant Deterioration regulations of 40 CFR 52.21 because at the time of New Source Review permitting the potential to emit of carbon monoxide and nitrogen dioxide was greater than 100 tons per year. EUPP05 and EUPP06 (Riley Power Boilers #1 and #2) at the stationary source were subject to review under the Prevention of Significant Deterioration regulations of the Michigan Air Pollution Control Rules Part 18, Prevention of Significant Deterioration of Air Quality, because at the time of New Source Review permitting the potential to emit of nitrogen oxides was greater than 100 tons per year.

EUPP03, EUPP05 and EUPP06 are natural gas fired boilers that are not subject to 40 CFR Part 63, Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources per Section 63.11195(e).

EU-EMERDGS 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 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 under 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.

**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-B1966-2014a are identified in Appendix 6 of the ROP.

PTI Number			
30-82	197-08	294-07	294-07A
294-07B			

**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
EU-Space heater	Miscellaneous natural gas-fired space heaters	212(4)(c)	282(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 at the time of issuance of the ROP except for requirements listed in Appendix 2. The table in Appendix 2 contains a Schedule of Compliance developed pursuant to Rule 119(a)(i). The applicant must adhere to this schedule and provide the required certified progress reports at least semiannually or in accordance with the schedule in the table. A Schedule of Compliance for any applicable requirement that the source is not in compliance with at the time of ROP issuance is supplemental to, and shall not sanction non-compliance with, the applicable requirements on which it is based.

**Action taken by the MDEQ, 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 Ed Lancaster, Upper Peninsula 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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**JULY 12, 2018 - STAFF REPORT ADDENDUM**

**Purpose**

A Staff Report dated April 23, 2018, was developed in order to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by R 336.1214(1). 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 R 336.1214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

**General Information**

Responsible Official:	Zachary Halkola, Chief Operating Officer 906-885-7905
AQD Contact:	Shamim Ahammod, Environmental Engineer 906-235-1377

**Summary of Pertinent Comments**

On May 23, 2018, AQD received comments from EPA. The comments and AQD's response follow:

Comment

Request for describing the functions of the following boilers at the facility in the staff report: EU-PP03, EU-PP04, and EU-PP07.

AQD Response

EU-PP03, 04 and 07 were all used to produce steam and/or heat. PP03 and 04 have not been used for several years.

**Changes to the 04/23/2018 Draft ROP**

Comment

Request to correct typo in EU-PP07 Emission Table, Section III.1.

AQD Response

Correction has been made from "EU-PP03" to "EU-PP07."

Comment

Request for adding associate monitoring requirements to assure compliance with the fuel requirement in EU-PP07 Emission Table, Section VI.

AQD Response

The following condition was added to EU-PP07 Emission Table, Section VI.1.:

The permittee shall monitor and record, in a satisfactory manner, the amount of natural gas combusted on a daily basis.<sup>2</sup> **(R 336.1205(3))**

Comment

Request to add footnote "2" in the FG-PP05 and 06 Emission Table, Section III.2.; Section IV.1.; Section V.1.; Sections VI.1 through 3; Section VII.4.; and Sections IX.1 through 5.

AQD Response

Footnote "2" has been added where appropriate.

Comment

In Section E. Non-Applicable Requirements, request to ensure that all Section E. Non-Applicability permit shield determinations include standard specific and uni-specific justifications.

AQD Response

AQD has reviewed the documentation and has changed Section E to read:

"At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii)."