

State Registration
Number
B2934

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-B2934-2019a

**Holtec Palisades, LLC
Palisades Nuclear Plant**

State Registration Number (SRN): B2934

Located at

27780 Blue Star Memorial Highway, Covert, VanBuren County, Michigan 49043

Permit Number: MI-ROP-B2934-2019a

Staff Report Date: November 5, 2018

Amended Date: June 28, 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) 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

November 5, 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 the Michigan 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:	Palisades Nuclear Plant 27780 Blue Star Memorial Highway Covert, Michigan 49043
Source Registration Number (SRN):	B2934
North American Industry Classification System (NAICS) Code:	221113
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201800054
Responsible Official:	Charles Arnone, Site Vice President 269-764-2018
AQD Contact:	Amanda Chapel, Environmental Quality Analyst 269-910-2109
Date Application Received:	April 19, 2018
Date Application Was Administratively Complete:	April 19, 2018
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	November 5, 2018
Deadline for Public Comment:	December 5, 2018

Source Description

The Palisades Nuclear Plant (Facility) is a single unit nuclear generation station with oil-fired auxiliary equipment, including boilers and generators. The Facility began commercial operation in 1970. It is located on the shore of Lake Michigan in Covert, Michigan, and is surrounded on three sides by forested land. The primary function of the Facility is to supply electricity to the local grid.

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

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	1.31
Lead (Pb)	0.00
Nitrogen Oxide (NO _x)	5.07
Particulate Matter (PM)	1.68
Sulfur Dioxide (SO ₂)	0.00
Volatile Organic Compounds (VOC)	0.52

**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 VanBuren 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 NO_x and SO₂ exceeds 100 tons per year.

The stationary source is a minor source of hazardous air pollutant (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 EUEVAPBOILER, EUPLANTHEATBLR, EUOFFICEBLR, EUGEN1, EUGEN2, EUGENK-5, EUGENK-10, EUGENK-1A, EUGENK-1B, and EUCOLDCLEANER 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.

EUSECURITYGEN and EUGENK-17 at the stationary source are subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and III.

EUOFFICEBLR, EUPLANTHEATBLR, and EUEVAPBOILER at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources promulgated in 40 CFR Part 63, Subparts A and JJJJJJ.

EUSECURITYGEN, EUGEN3, and EUGENK-17 at the stationary source are subject to the National Emissions Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ, as new units. EUGEN1, EUGEN2, EUGENK-5, EUGENK-10, EUGENK-1A, and EUGENK-1B are subject to this standard also, but as existing sources.

Since the issuance of MI-ROP-B2934-2013a, one PTI was issued to the Facility, PTI No. 38-18, for a new emergency engine for the auxiliary feedwater system. This was issued by the MDEQ after the ROP application was received by the Kalamazoo District Office. It is identified in the application as currently being processed within the Permit Section. The Facility is also replacing EUOFFICEBLR for a smaller model that will be run identically to the current one. This boiler never required a PTI to be obtained by the Facility, and it will be updated through an off-permit change. No other changes to the ROP were requested by the Facility.

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.

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. The PTIs issued after the effective date of ROP No. MI-ROP-B2934-2013 are identified in Appendix 6 of the ROP.

PTI Number			
319-76	250-90	183-06	

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.

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 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 Ms. Mary Douglas, 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.

Michigan Department of Environmental Quality
Air Quality Division

State Registration Number
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RENEWABLE OPERATING PERMIT

ROP Number
MI-ROP-B2934-2019

December 13, 2018 STAFF REPORT ADDENDUM

Purpose

A Staff Report dated November 5, 2018, was developed to set forth the applicable requirements and factual basis for the Draft 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:	Charles Arnone, Site Vice President 269-764-2018
AQD Contact:	Amanda Chapel, Environmental Quality Analyst 269-910-2109

Summary of Pertinent Comments

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

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RENEWABLE OPERATING PERMIT

ROP Number
MI-ROP-B2934-2019a

June 28, 2022 - STAFF REPORT FOR RULE 216(1)(a)(i)-(iv) ADMINISTRATIVE AMENDMENT

Purpose

On February 4, 2019, the Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-B2934-2019 to Entergy Nuclear Palisades LLC 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(1)(a)(i-iv).

General Information

Responsible Official:	Benjamin Reynolds, Director of Environmental Affairs 856-797-0900
AQD Contact:	Caryn Owens, Senior Environmental Engineer 231-878-6688
Application Number:	202200039
Date Application for Administrative Amendment was Submitted:	February 7, 2022

Regulatory Analysis

The AQD has determined that the change requested by the stationary source meets the qualifications for an Administrative Amendment pursuant to Rule 216(1)(a)(iv).

Description of Changes to the ROP

This Administrative Amendment No. 202200039 is for a change in ownership and control for the Palisades Nuclear Plant located at 27780 Blue Star Memorial Highway in Covert, Michigan. Entergy Nuclear Palisades LLC and its affiliates transferred ownership and control to Holtec Palisades, LLC ("Holtec") on June 28, 2022. Entergy Nuclear Palisades LLC assigns and transfers its rights and obligations under its ROP (MI-ROP-B2934-2019) and its Source-wide Permit to Install (MI-PTI-B2934-2019) to Holtec.

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 Administrative Amendment to the ROP.

Action Taken by EGLE

The AQD approved an Administrative Amendment to ROP No. MI-ROP-B2934-2019, as requested by the stationary source. The delegated decision maker for the AQD is the District Supervisor.