

State Registration Number
M4854

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-M4854-2021

Sumpter Generation Plant

State Registration Number (SRN): M4854

Located at

8509 Rawsonville Road, Belleville, Wayne County, Michigan 48111

Permit Number: MI-ROP-M4854-2021

Staff Report Date: September 28, 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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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:	Sumpter Generation Plant 8509 Rawsonville Road Belleville, Michigan 48111-9317
Source Registration Number (SRN):	M4854
North American Industry Classification System (NAICS) Code:	211112
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201800100
Responsible Official:	Joseph Baumann, Vice President and General Counsel 231-775-5700
AQD Contact:	Sam Liveson, Environmental Engineer 313-405-1357
Date Application Received:	August 10, 2018
Date Application Was Administratively Complete:	August 23, 2018
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	September 28, 2020
Deadline for Public Comment:	October 28, 2020

Source Description

Sumpter Generation Plant is an electricity generating facility located in the city of Belleville. The facility grounds are located east of Rawsonville Road between Bemis Road and Willis Road. This facility is owned by Wolverine Power Supply Cooperative, Inc. located in Cadillac, Michigan.

The facility's primary emissions sources are four 83 MW (nominal) electrical output General Electric PG7121 (EA) simple cycle combustion turbines fueled by pipeline quality natural gas. Each turbine is equipped with dry low oxides of nitrogen control burners; none of the combustion turbines are equipped with add-on pollution control devices. Turbine exhaust gases are emitted to the ambient air through stacks dedicated for each turbine; nitrogen oxides emissions concentrations are measured through continuous monitoring systems (CEMS) on each stack, while carbon monoxide emissions are measured by stack testing.

The facility also operates two 3.7 million British thermal unit per hour (MMBtu/hr) natural gas fired dew point heaters (moisture removal), a 1.48 MMBtu/hr diesel fired fire water pump engine, a small welding area, and a machining area (drill press, sanders, grinders, saws, etc.).

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2019**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	48.7
Nitrogen Oxides (NO _x)	61.0
Particulate Matter (PM)	11.4
Sulfur Dioxide (SO ₂)	0.7
Volatile Organic Compounds (VOCs)	3.6
Individual Hazardous Air Pollutants (HAPs) **	NA
Total Hazardous Air Pollutants (HAPs)	NA

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

Since the facility is a true minor source of HAPs, no HAP emissions data were included in the 2019 MAERS emission inventory report (and none were required by the Air Quality Division to be reported). Emission rate for Pb was not reported in the 2019 submittal.

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 Wayne County, which is currently designated by the United States Environmental Protection Agency (USEPA) as a non-attainment area with respect to the 8-hour ozone standard.

A portion of Wayne County is currently designated by the United States Environmental Protection Agency (USEPA) as a non-attainment area with respect to the SO₂ standard. Sumpter Generation Plant is not within that SO₂ non-attainment area.

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

Each installation and subsequent modification at the facility is a "synthetic minor" in regards to the Prevention of Significant Deterioration regulations of 40 CFR 52.21 because, at the time of New Source Review (NSR) permitting, the source accepted legally enforceable permit conditions limiting the facility potential to emit of carbon monoxide and nitrogen oxide emissions to less than corresponding major source and major modification thresholds. However, future modifications of this equipment may be subject to NSR.

EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4 in FG-TURBINES 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.

EU-FWP at the stationary source is 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.

EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4 in FG-TURBINES at the stationary source are subject to the federal Acid Rain program promulgated in 40 CFR Part 72.

EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4 in FG-TURBINES at the stationary source are subject to the Cross-State Air Pollution Rule NO_x Annual Trading Program pursuant to 40 CFR Part 97, Subpart AAAAA.

EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4 in FG-TURBINES at the stationary source are subject to the Cross-State Air Pollution Rule NO_x Ozone Season Group 2 Trading Program pursuant to 40 CFR Part 97, Subpart EEEEE.

EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4 in FG-TURBINES at the stationary source are subject to the Cross-State Air Pollution Rule SO₂ 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."

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. PTIs issued after the effective date of ROP No. MI-ROP-M4854-2014c are identified in Appendix 6 of the ROP.

PTI Number			
247-00C	65-13		

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-Preheater1	3.7 million British thermal unit per hour (MMBtu/hour) heat input natural gas fired dew point heater for incoming natural gas heating.	R336.1212(4)(c)	R336.1282(2)(b)(i)
EU-Preheater2	3.7 MMBtu/hour heat input natural gas fired dew point heater for incoming natural gas heating.	R336.1212(4)(c)	R336.1282(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 Dr. April Wendling, Detroit 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.

State Registration Number
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RENEWABLE OPERATING PERMIT
November 2, 2020 STAFF REPORT ADDENDUM

ROP Number
MI-ROP-M4854-2021

Purpose

A Staff Report dated September 28, 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:	Joseph Baumann, Vice President and General Counsel 231-775-5700
AQD Contact:	Sam Liveson, Environmental Engineer 313-405-1357

Summary of Pertinent Comments

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

Changes to the September 28, 2020 Draft ROP

No changes were made to the draft ROP.