

State Registration Number  
N6731

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
MI-ROP-N6731-2021

**CMS Generation-Kalamazoo River Generating Station**

State Registration Number (SRN): N6731

Located at

6900 East Michigan Avenue, Comstock, Kalamazoo County, Michigan 49041

Permit Number: MI-ROP-N6731-2021

Staff Report Date: September 13, 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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**SEPTEMBER 13, 2021 - STAFF REPORT**

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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:	CMS Generation-Kalamazoo River Generating Station 2400 Miller Road Dearborn, Michigan 48121
Source Registration Number (SRN):	N6731
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:	202000010
Responsible Official:	Jim Chong, Asset Manager 313-336-7189
AQD Contact:	Monica Brothers, Senior Environmental Quality Analyst 269-312-2535
Date Application Received:	January 20, 2020
Date Application Was Administratively Complete:	January 20, 2020
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	September 13, 2021
Deadline for Public Comment:	October 13, 2021

## **Source Description**

CMS Generation-Kalamazoo River Generating Station (Facility) is an electric generating peaking plant in Comstock, Michigan. They operate one natural gas fired combustion turbine rated at 86 megawatts at base load. The turbine is equipped with dry low NOx combustors.

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)	37.4
Nitrogen Oxides (NO <sub>x</sub> )	24.0
Particulate Matter (PM)	3.0
Sulfur Dioxide (SO <sub>2</sub> )	0.3
Volatile Organic Compounds (VOCs)	1.0

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 Kalamazoo 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.

The stationary source is considered a “synthetic minor” source in regard to the Prevention of Significant Deterioration regulations of 40 CFR 52.21 because the stationary source accepted legally enforceable permit conditions limiting the potential to emit of nitrogen oxides to less than 250 tons per year.

On July 3, 2018, PTI No. 8-18 was issued to the facility to increase the permitted heat input of the combustion turbine. This was a modification under 40 CFR 60.2 and made the facility subject to 40 CFR Part 60, Subpart KKKK, and no longer subject to Subpart GG. The PTI increased the hourly and annual potential emission rates, and the company requested a NOx emission limit of 224 tons per year to keep the facility a synthetic minor source with respect to Prevention of Significant Deterioration. This PTI was rolled into the ROP on September 30, 2019.

EUCOMBTURB01 at the stationary source is subject to the Standards of Performance for Stationary Combustion Turbines promulgated in 40 CFR Part 60, Subparts A and KKKK.

EUCOMBTURB01 at the stationary source is also subject to the federal Acid Rain program promulgated in 40 CFR Part 72.

EUCOMBTURB01 at the stationary source is also subject to the Cross-State Air Pollution Rule NOx Annual Trading Program pursuant to 40 CFR Part 97, Subpart AAAAA, the Cross-State Air Pollution Rule NOx Ozone Season Group 3 Trading Program pursuant to 40 CFR Part 97, Subpart GGGGG, and the Cross-State Air Pollution Rule SO<sub>2</sub> Group 1 Trading Program pursuant to 40 CFR Part 97, Subpart CCCCC.

The facility does not have a Continuous Emissions Monitoring System (CEMS) or Predictive Emissions Monitoring System (PEMS) to monitor emissions. The facility would like to use a PEMS but are awaiting EPA approval to use this in lieu of a CEMS. Based on their current capacity factor, they are not yet required to have a CEMS under 40 CFR Part 75. However, they may be planning to run more often in the future, which may increase their capacity factor to above the threshold. Per 40 CFR Part 75, Appendix E, the capacity factor must be below 10% on a 3-year average, and below 20% for any given calendar year, or the company must install a NOx CEMS on the turbine. In 2019, the capacity factor was 7.6%, with a 3.2% three-year average. Currently, they are using a data acquisition system (DAS) and stack testing results to calculate their emissions. This is allowed under 40 CFR Part 75, Appendix E.

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-N6731-2015 are identified in Appendix 6 of the ROP.

PTI Number		
313-98B		

**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.

Emission Unit/Flexible Group ID	Condition Number	Streamlined Limit/ Requirement	Subsumed Limit/ Requirement	Stringency Analysis
EUCOMBTURB01	SC II.2	2.4 grains per 100 standard cubic feet of gas	20 grains of sulfur per 100 standard cubic feet of gas under 40 CFR Part 60, Subpart KKKK	The limit in PTI No. 8-18, which is 2.4 grains per 100 standard cubic feet of gas, is more stringent than the 40 CFR Part 60, Subpart

Emission Unit/Flexible Group ID	Condition Number	Streamlined Limit/ Requirement	Subsumed Limit/ Requirement	Stringency Analysis
				KKKK limit of 20 grains of sulfur per cubic feet of gas.

**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 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 Rex Lane, 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.

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**RENEWABLE OPERATING PERMIT**  
**OCTOBER 18, 2021 - STAFF REPORT ADDENDUM**

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**Purpose**

A Staff Report dated September 13, 2021, 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:	Jim Chong, Asset Manager 313-336-7189
AQD Contact:	Monica Brothers, Senior Environmental Quality Analyst 269-312-2535

**Summary of Pertinent Comments**

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

**Changes to the September 13, 2021 Draft ROP**

No changes were made to the draft ROP.