State Registration Number

B2806

#### Michigan Department of Environment, Great Lakes, and Energy Air Quality Division **RENEWABLE OPERATING PERMIT**

STAFF REPORT

**ROP Number** MI-ROP-B2806-2023

## **DTE Electric Company - Superior Peaking Station**

State Registration Number (SRN): B2806

Located at

6000 First Street, Superior Township, Washtenaw County, Michigan 48197

Permit Number: MI-ROP-B2806-2023

Staff Report Date: May 22, 2023

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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RENEWABLE OPERATING PERMIT

MAY 22, 2023 - STAFF REPORT

ROP Number

MI-ROP-B2806-2023

## <u>Purpose</u>

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:	DTE Electric Company - Superior Peaking Facility 38155 Cherry Hill Road Westland, Michigan 48166
Source Registration Number (SRN):	B2806
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:	202200113
Responsible Official:	Biljana Pecov, Plant Manager – Energy Supply 248-342-3621
AQD Contact:	Brian Carley, Environmental Quality Specialist 517-416-4631
Date Application Received:	May 24, 2022
Date Application Was Administratively Complete:	May 24, 2022
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	May 22, 2023
Deadline for Public Comment:	June 21, 2023

## Source Description

DTE Electric Company - Superior Peaking Facility has four diesel-fired combustion turbine generators, which were installed in 1966. The turbines are rated at approximately 19 MW each. The facility also has a 300 HP black-start emergency engine used to black-start CTG11-1. The facility is bordered on the west side by the Huron River and on the northeast side by a railroad line. The nearest resident is located ~600 feet to the southeast.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2021**.

## TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	0
Lead (Pb)	0
Nitrogen Oxides (NO <sub>x</sub> )	18.35
PM10*	0
Sulfur Dioxide (SO <sub>2</sub> )	0
Volatile Organic Compounds (VOCs)	0

\* Particulate matter (PM) that has an aerodynamic diameter less than or equal to a nominal 10 micrometers.

This source is an area source of hazardous air pollutant (HAP) emissions pursuant to Section 112(b) of the federal Clean Air Act. No HAP emissions data is reported.

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 nonapplicability for this source are explained below in the Non-Applicable Requirement part of the Staff Report and identified in Part E of the ROP.

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

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.

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.

EU00001, EU00002, EU00003, EU00004, and EUBLKSTART11-1 were installed prior to August 15, 1967. As a result, this equipment is considered "grandfathered" and is not subject to New Source Review (NSR) permitting requirements. However, future modifications of this equipment may be subject to NSR.

EUBLKSTART11-1 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 as an area source.

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. This source is considered "grandfathered" and has not done any modifications that would require the source to obtain a to New Source Review (NSR) permit. Therefore, the requirement for a Source-wide PTI for this source is not applicable.

#### 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	Description of PTI	Rule 212(4)	PTI Exemption
Emission Unit ID	Exempt Emission Unit	Citation	Rule Citation
EU00005	100,000-gallon diesel storage tank	Rule 212(4)(e)	Rule 284(2)(d)

#### 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 Scott Miller, Jackson 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 Environment, Great Lakes, and Energy

Air Quality Division

State Registration Number

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#### JUNE 29, 2023 - STAFF REPORT ADDENDUM

MI-ROP-B2806-2023

#### **Purpose**

A Staff Report dated May 22, 2023, 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:	Biljana Pecov, Plant Manager – Energy Supply 248-342-3621
AQD Contact:	Brian Carley, Environmental Quality Specialist 517-416-4631

#### Summary of Pertinent Comments

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

#### Changes to the May 22, 2023 Draft ROP

No changes were made to the draft ROP.