

State Registration Number
B2803

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-B2803-2023

DTE Electric Company - Placid Peaking Facility

State Registration Number (SRN): B2803

Located at

4912 Edgar Road, Clarkston, Oakland County, Michigan 48346

Permit Number: MI-ROP-B2803-2023

Staff Report Date: March 13, 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).

TABLE OF CONTENTS

MARCH 13, 2023 - STAFF REPORT	3
APRIL 25, 2023 - STAFF REPORT ADDENDUM	8

Michigan Department of Environment, Great Lakes, and Energy
Air Quality Division

State Registration Number
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RENEWABLE OPERATING PERMIT
MARCH 13, 2023 - STAFF REPORT

ROP Number
MI-ROP-B2803-2023

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:	DTE Electric Company - Placid Peaking Facility 4912 Edgar Road Clarkston, Michigan 49346
Source Registration Number (SRN):	B2803
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:	202200168
Responsible Official:	Biljana Pecov, Plant Manager - Energy Supply 313-235-8929
AQD Contact:	Shamim Ahammod, Senior Environmental Engineer 586-212-0508
Date Application Received:	September 9, 2022
Date Application Was Administratively Complete:	September 9, 2022
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	March 13, 2023
Deadline for Public Comment:	April 12, 2023

Source Description

DTE Electric Company - Placid Peaking Facility is located at 4912 Edgar, Clarkston, Michigan. There are five diesel/No. 2 fuel oil-fired generator sets, each equipped with a diesel oxidation catalyst, and one 30,000 gallon (114 cubic meters) fuel tank on-site. The five diesel-fired compression ignition reciprocating internal combustion engines (RICE) are rated at 3,600 horsepower and have a 2.75 megawatt electrical generator connected to each engine. The engines were installed in 1970. The oxidation catalysts were installed on each engine in 2012. At the time of engine installation, fuel-oil burning equipment used for electric power generation was exempt from permitting pursuant to Rule 336.33(f) and Rule 336.36(c). The facility is bordered on the north side by Foster Lake and undeveloped land to the east. Nearby residential properties are located to the west and south of the facility. The nearest residents are located ~400 feet to the west and south.

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)	0.545
Lead (Pb)	Not Reported
Nitrogen Oxides (NO _x)	15.91
PM10*	0.285
Sulfur Dioxide (SO ₂)	0.007
Volatile Organic Compounds (VOCs)	0.498

* PM10: Particulate matter (PM) that has an aerodynamic diameter less than or equal to a nominal 10 micrometers.

This source is a true minor source of HAPs, thus no HAP emissions data is listed.

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 Oakland 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.

At the time of the initial ROP issuance in 2013, the stationary source was subject to Title 40 of the Code of Federal Regulations (CFR) Part 70, because the potential to emit of Greenhouse Gases was 100,000 tons per year or more calculated as carbon dioxide equivalents (CO₂e) and 100 tons per year or more on a mass basis. In addition, at the time of initial ROP issuance in 2013, the stationary source operated as a synthetic minor for NO_x under Rule 208(a). Rule 208(a) required emissions to be limited to less than 50% of major source thresholds, and the submittal of annual renewal registration forms. Rule 208(a) was rescinded in 2016. 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 CO exceeds 100 tons per year.

No emission units at the stationary source were 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 the diesel fuel-fired generator sets designated as EU00001, EU00002, EU00003, EU00004 and EU00005 were installed after August 15, 1967, this equipment was exempt by state rule from New Source Review (NSR) permitting requirements at the time it was installed.

The diesel fuel-fired generator sets designated as EU00001, EU00002, EU00003, EU00004 and EU00005 at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE) promulgated in 40 CFR Part 63, Subparts A and ZZZZ. The AQD is now delegated the regulatory authority for 40 CFR Part 63, Subpart 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."

The emission limitation(s) or standard(s) for carbon monoxide from EU00001, EU00002, EU00003, EU00004 and EU00005 at the stationary source are exempt from the federal Compliance Assurance Monitoring (CAM) regulation under 40 CFR 64.2(b)(1)(i), because the emission limitation for carbon monoxide is addressed by 40 CFR Part 63, Subpart ZZZZ. Therefore, EU00001, EU00002, EU00003, EU00004 and EU00005 are exempt from CAM requirements because 40 CFR Part 63, Subpart ZZZZ was proposed after November 15, 1990.

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-B2803-2018 are identified in Appendix 6 of the ROP.

PTI Number			
NA	NA	NA	NA

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

The following table lists terms and/or conditions of the draft ROP that the AQD and the applicant did not agree upon and outlines the applicant’s objections pursuant to Rule 214(2). The terms and conditions that the AQD believes are necessary to comply with the requirements of Rule 213 shall be incorporated into the ROP.

Emission Unit/ Flexible Group ID	Permit Term(s) and/or Condition(s) in Dispute	Applicant’s Objection	AQD Response
FGPEAKERS	Special Condition (SC) I.1	Requested changing the Time Period/Operating Scenario language to be consistent with ROPs for other DTE sites.	A permit template is being used state-wide for area source – existing non-emergency, non-black start engines > 500 bhp with oxidation catalyst subject to 40 CFR Part 63, Subpart ZZZZ. It contains the proper Time Period/Operating Scenario language and the requirements applicable to FGPEAKERS. The permit template was developed so that conditions are consistent for all ROPs state-wide.
FGPEAKERS	SC III.3	Requested adding language for alternative monitoring procedures to be consistent with ROPs for other DTE sites.	This language does appear in 40 CFR 63.6625(b)(1). However, the purpose of the permit template is to put the federal regulation into a practically enforceable permit. The permit includes the options the permittee is using to demonstrate compliance. For alternative monitoring system procedures, the permittee must first request approval from EPA. If the permittee gets approval for alternatives, they can be included in the ROP as the option being used to demonstrate compliance.
FGPEAKERS	SC IV.1.b	Requested that additional language found within the referenced UAR be included in order to maintain the flexibility allowed in 40 CFR Part 63, Subpart ZZZZ.	The addition of the language “4-hour rolling average” to the design/equipment parameter condition in SC IV.1.b is not necessary because it is addressed in the monitoring/recordkeeping condition in SC VI.4.b.
FGPEAKERS	SC IV.2	Requested adding language for requests to the Administrator to approve different	The language “or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements” is

Emission Unit/ Flexible Group ID	Permit Term(s) and/or Condition(s) in Dispute	Applicant's Objection	AQD Response
		maintenance requirements in order to maintain the flexibility allowed in 40 CFR Part 63, Subpart ZZZZ.	in 40 CFR 63.6625(g). The permit includes the options the permittee is using to demonstrate compliance. For different maintenance requirements, the permittee must request approval from EPA. When the permittee gets different maintenance requirements, they can be included in the ROP as the option being used to demonstrate compliance.
FGPEAKERS	SC VII.6	Requested to include semiannual and annual reporting periods and other language in 40 CFR Part 63, Subpart ZZZZ to make it easier for the operating personnel to comply with the ROP.	<p>The semiannual and annual reporting periods are specified in SC VII.2 and VII.3.</p> <p>The semiannual compliance report requirements in SC VII.6 that reference Table 7 of 40 CFR Part 63, Subpart ZZZZ are in SC VII.6.a.i through iii and VII.6.b.i through vi and VII.6.c.i through xii. Therefore, operating personnel do not have to reference Table 7 of 40 CFR Part 63, Subpart ZZZZ to comply with the ROP.</p> <p>The permit template was developed so that all requirements applicable to FGPEAKERS are clear and practically enforceable and, so that permit conditions are consistent for all ROPs state-wide.</p>

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 Brad Myott, Field Operations Manager. 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
B2803

RENEWABLE OPERATING PERMIT
APRIL 25, 2023 - STAFF REPORT ADDENDUM

ROP Number
MI-ROP-B2803-2023

Purpose

A Staff Report dated March 13, 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 313-235-8929
AQD Contact:	Shamim Ahammod, Senior Environmental Engineer 586-212-0508

Summary of Pertinent Comments

During the public comment period for draft ROP No. MI-ROP-B2803-2023, DTE provided formal comments reiterating their objections to several of the changes made during the ROP renewal process. These comments had been previously brought forth by DTE during the company review of the Working Draft ROP. AQD responded to the comments made, but DTE still had objections. Listed below are a basic summary of the applicant's objection with the AQD response of why the DTE comment was not accepted.

Emission Unit/ Flexible Group ID	Permit Term(s) and/or Condition(s) in Dispute	Applicant's Objection	AQD Response
FGPEAKERS	Special Condition (SC) I.1	Requested changing the Time Period / Operating Scenario language to be consistent with other ROPs for other DTE sites.	An ROP template is being used state-wide for area source – existing compression ignition non-emergency non-black start engines greater than 500 bhp with oxidation catalyst subject to 40 CFR Part 63, Subpart ZZZZ. It contains the proper Time Period / Operating Scenario language and requirements applicable for FGPEAKERS. The permit template was developed so that conditions are consistent for all ROP's state-wide.
FGPEAKERS	SC III.3	Requested changing the language to be consistent with other ROPs for other DTE sites by adding	Requests for approval of monitoring system quality assurance and quality control procedures alternatives is in 40 CFR 63.6625(b)(1). However, the purpose of the permit template is to put the federal regulation into a

Emission Unit/ Flexible Group ID	Permit Term(s) and/or Condition(s) in Dispute	Applicant's Objection	AQD Response
		language for alternative monitoring procedures.	practically enforceable permit. The permit includes the options the permittee is using to demonstrate compliance. For alternative monitoring system procedures, the permittee must first request approval from EPA. When the permittee gets approval for alternatives, they can be included in the ROP as the option being used to demonstrate compliance.
FGPEAKERS	SC IV.1.b	Requested that additional language found within the referenced underlying applicable requirement (UAR) be included in order to maintain the flexibility allowed in 40 CFR Part 63, Subpart ZZZZ.	<p>The addition of the language "4-hour rolling average" to the design / equipment parameter condition in SC IV.1.b is not redundant because it is in the monitoring / recordkeeping condition in SC VI.4.b.</p> <p>Additionally, the language "The permittee may petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range" does appear as footnote 1 of Table 2b. However, the purpose of the state template language is to put the federal language into an enforceable permit. For alternative temperature ranges, the permittee must request approval from EPA.</p>
FGPEAKERS	SC IV.2	Requested that additional language for requests to the Administrator to approve different maintenance requirements be included in order to maintain the flexibility allowed in 40 CFR Part 63, Subpart ZZZZ.	The language "or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements" is in 40 CFR 63.6625(g). The permit includes the options the permittee is using to demonstrate compliance. For different maintenance requirements, the permittee must request approval from EPA. When the permittee gets different maintenance requirements, they can be included in the ROP as the option being used to demonstrate compliance.
FGPEAKERS	SC VII.6	Requested to include semiannual and annual reporting periods and other language in 40 CFR Part 63,	The semiannual and annual reporting periods are specified in SC VII.2 and VII.3.

Emission Unit/ Flexible Group ID	Permit Term(s) and/or Condition(s) in Dispute	Applicant's Objection	AQD Response
		Subpart ZZZZ to make it easier for the operating personnel to comply with the ROP.	Regarding the semiannual compliance report requirements in SC VII.6 that reference Table 7 of 40 CFR Part 63, Subpart ZZZZ, these are expanded on in SC VII.6.a, b, and c with all of the requirements. No reference to additional documents is necessary.

In summary, DTE requested to modify and include additional language so that DTE personnel would have a clearer understanding of the condition and therefore minimize risk of non-compliance. Instead of writing a condition in plain language, several conditions cross referenced the rules, which will force site operating personnel to look up regulations to get to the root requirement of a condition. This is simply not appropriate according to DTE. In some cases, DTE's requested changes were to maintain flexibility allowed under the 40 CFR Part 63, Subpart ZZZZ rules.

While the AQD understands the concerns, the language in Template ID No. 63-4ZE-9 for "Area Source – Existing Compression Ignition Non-Emergency Non-Black Start Greater than 500 bhp w/Oxidation Catalyst" is written to match the regulation. This is done in order to make sure all applicable requirements are in the permit and so there is no accidental reinterpretation of a requirement. The template has gone through extensive review by the AQD to verify each special condition and that associated underlying applicable requirements are clear and concise. AQD made corrections to permit conditions based on DTE comments and the corrections were made to Template ID No. 63-4ZE-9. However, not all comments made by DTE were accepted at this time but may potentially result in future adjustments to the template.

Changes to the March 13, 2023 Draft ROP

No changes were made to the March 13, 2023 ROP.