

State Registration Number  
B2808

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
MI-ROP-B2808-2023

**DTE Electric Company - Northeast Peaking Facility**

State Registration Number (SRN): B2808

Located at

6401 East Eight Mile Road, Warren, Macomb County, Michigan 48091

Permit Number: MI-ROP-B2808-2023

Staff Report Date: May 8, 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

<b>MAY 8, 2023 - STAFF REPORT</b>	<b>3</b>
<b>JUNE 8, 2023 - STAFF REPORT ADDENDUM</b>	<b>8</b>

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

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**MAY 8, 2023 - 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; 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- Northeast Peaking Facility 6401 East Eight Mile Road Warren, Michigan 48091
Source Registration Number (SRN):	B2808
North American Industry Classification System (NAICS) Code:	221112 – Fossil Fuel Electric Power Generation
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	202200086
Responsible Official:	Biljana Pecov, Plant Manager- Fossil Generation 248-342-3621
Responsible Official:	Justin Morren, Plant Director- Fossil Generation 810-599-9223
AQD Contact – District Inspector:	Shamim Ahammod, Environmental Engineer 586-212-0508
AQD Contact – ROP Writer:	Matt Karl, Senior Environmental Quality Analyst 517-282-2126
Date Application Received:	April 6, 2022
Date Application Was Administratively Complete:	April 6, 2022
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	May 8, 2023
Deadline for Public Comment:	June 7, 2023

## **Source Description**

The DTE Electric Company – Northeast Peaking Facility is located at 6401 Eight Mile Road, Warren, Michigan in an area zoned industrial. The nearest commercial building is approximately 1,500 feet away and the nearest residential building is approximately 2,000 feet away. This peaking station's function is to provide electrical power during peak periods of consumer demand occurring mainly in the summer months.

The facility is composed of four (4) natural gas fired combustion turbine generators, one (1) No. 2 fuel oil or natural gas fired combustion turbine generator, two (2) No. 2 fuel oil fired jet turbine generators, and a black start diesel fuel fired engine. The units were commissioned between September 1966 and June 1971, and no modifications have been reported. Each unit has a separate building and stack.

The facility emits criteria pollutants including carbon monoxide (CO), particulate matter (PM), volatile organic compounds (VOCs), sulfur dioxide (SO<sub>2</sub>), and nitrogen oxides (NO<sub>x</sub>). It is considered an existing major attainment and non-attainment source based upon potential to emit of NO<sub>x</sub> and CO.

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**

<b>Pollutant</b>	<b>Tons per Year</b>
Carbon Monoxide (CO)	4.95
Lead (Pb)	2.75 x 10 <sup>-4</sup>
Nitrogen Oxides (NO <sub>x</sub> )	36.21
PM10*	1.22
Sulfur Dioxide (SO <sub>2</sub> )	6.5 x 10 <sup>-2</sup>
Volatile Organic Compounds (VOCs)	0.14

\*Particulate matter with an effective aerodynamic diameter of <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 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 Macomb County, which is currently designated by the United States Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants with the exception of non-attainment of 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 (NO<sub>x</sub>) and carbon monoxide (CO) exceeds 100 tons per year.

The stationary source is an area 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.

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.

EUCTG11-2, EUCTG11-3 and EUCTG11-4 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.

Although EUCTG12-1, EUCTG11-1, EUCTG13-1, EUCTG13-2, and EUBSE CTG12-1 were installed after August 15, 1967, this equipment was exempt from New Source Review (NSR) permitting requirements at the time it was installed.

EUBSE CTG12-1 at the stationary source is subject to the National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) promulgated in 40 CFR Part 63, Subparts A and ZZZZ. EUBSE CTG12-1 is an existing black start RICE. It is categorized as located at an area source of HAPs, existing (installed before June 12, 2006), compression ignition (CI) RICE.

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-B2808-2017 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**

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.

<b>PTI Exempt Emission Unit ID</b>	<b>Description of PTI Exempt Emission Unit</b>	<b>Rule 212(4) Citation</b>	<b>PTI Exemption Rule Citation</b>
Fuel Storage Tank	100,000-gallon diesel fuel storage tank.	R 336.1212(3)(e)	R 336.1284(2)(d)
Peaking Unit 11-1 Lube Oil Tank	1,500-gallon lube oil storage tank for use with peaking unit 11-1.	R 336.1212(3)(e)	R 336.1284(2)(c)
Peaking Unit 11-2 Lube Oil Tank	1,500-gallon lube oil storage tank for use with peaking unit 11-2.	R 336.1212(3)(e)	R 336.1284(2)(c)
Peaking Unit 11-3 Lube Oil Tank	1,500-gallon lube oil storage tank for use with peaking unit 11-3.	R 336.1212(3)(e)	R 336.1284(2)(c)
Peaking Unit 11-4 Lube Oil Tank	1,500-gallon lube oil storage tank for use with peaking unit 11-4.	R 336.1212(3)(e)	R 336.1284(2)(c)
Peaking Unit 13-1 Lube Oil Tank	59-gallon lube oil storage tank for use with peaking unit 13-1.	R 336.1212(3)(e)	R 336.1284(2)(c)
Peaking Unit 13-2 Lube Oil Tank	59-gallon lube oil storage tank for use with peaking unit 13-2.	R 336.1212(3)(e)	R 336.1284(2)(c)
Peaking Unit 12-1 Lube Oil Tank	1,700-gallon lube oil storage tank for use with peaking unit 12-1.	R 336.1212(3)(e)	R 336.1284(2)(c)
Peaking Unit 12-1 Fuel Oil Tank	185-gallon diesel fuel oil tank for use with peaking unit 12-1.	R 336.1212(3)(e)	R 336.1284(2)(d)
Power Transformer 2 Oil Storage Tank	8,150-gallon mineral oil storage tank for use with power transformer 2.	R 336.1212(3)(e)	R 336.1284(2)(c)
Power Transformer 23 Oil Storage Tank	4,774-gallon mineral oil storage tank for use with power transformer 23.	R 336.1212(3)(e)	R 336.1284(2)(c)
Power Transformer 24 Oil Storage Tank	5,240-gallon mineral oil storage tank for use with power transformer 24.	R 336.1212(3)(e)	R 336.1284(2)(c)
Power Transformer 3 Oil Storage Tank	18,503-gallon mineral oil storage tank for use with power transformer 3.	R 336.1212(3)(e)	R 336.1284(2)(c)
Power Transformer 5 Oil Storage Tank	11,500-gallon mineral oil storage tank for use with power transformer 5.	R 336.1212(3)(e)	R 336.1284(2)(c)
Breaker Storage tank (32)	420-gallon mineral oil storage tank used with breakers.	R 336.1212(3)(e)	R 336.1284(2)(c)

**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 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  
B2808

**RENEWABLE OPERATING PERMIT**  
**JUNE 8, 2023 - STAFF REPORT ADDENDUM**

ROP Number  
MI-ROP-B2808-2023

**Purpose**

A Staff Report dated May 8, 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- Fossil Generation 248-342-3621
Responsible Official:	Justin Morren, Plant Director- Fossil Generation 810-599-9223
AQD Contact – District Inspector:	Shamim Ahammod, Environmental Engineer 586-212-0508
AQD Contact – ROP Writer:	Matt Karl, Senior Environmental Quality Analyst 517-282-2126

**Summary of Pertinent Comments**

Comment from DTE:

EUCTG 11-1 was retired as of June 1, 2023 and is not included in the draft ROP. DTE is proposing to remove the reference to EUCTG 11-1 on page 5 [of the staff report] to eliminate confusion, and/or add a comment explaining that EUCTG 11-1 is retired and is no longer included in the ROP.

Response:

As noted by the comment, the combustion turbine generator EUCTG11-1 was not included in the draft ROP due to EUCTG11-1 being retired on June 1, 2023. The emission unit EUCTG11-1 was erroneously retained in the regulatory analysis on page 5 of the staff report. This staff report addendum notes that the EUCTG11-1 was retired on June 1, 2023, and EUCTG11-1 no longer has any regulatory requirements in the ROP. References to emission unit EUCTG11-1 will be removed in future regulatory analysis discussions.

**Changes to the May 8, 2023 Draft ROP**

No changes were made to the draft ROP.