

Michigan Department of Environmental Quality  
Air Quality Division

State Registration Number  
B2795

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
MI-ROP-B2795-2016a

DTE Electric Company – Colfax Peaker Generating Units

SRN: B2795

Located at

4025 Gregory, Fowlerville, Michigan 48836

Permit Number: MI-ROP-B2795-2016a

Staff Report Date: May 2, 2016

Amended Date: March 26, 2019

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) requires that the Michigan Department of Environmental Quality (MDEQ), 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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**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 of 1990 and Michigan's Administrative Rules for Air Pollution Control pursuant to 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 – Colfax Peaker Generating Units, 4025 Gregory, Fowlerville, Michigan 48836
Source Registration Number (SRN):	B2795
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:	201500195
Responsible Official:	Ryan A. Randazzo, Plant Manager Fossil Generation 734-231-1140
AQD Contact:	Julie L. Brunner, Senior Environmental Engineer 517-284-6789
Date Application Received:	November 12, 2015
Date Application Was Administratively Complete:	November 19, 2015
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	May 2, 2016
Deadline for Public Comment:	June 1, 2016

## **Source Description**

DTE Energy - Colfax Peaker Station is a power plant that consists of five diesel fuel-fired engines that provide electric power to the transmission grid during peak electrical demand periods or when required for load stability. The engines were installed in 1969. The five engines are identical GM Power, EMD MP45 diesel fuel-fired compression ignition (CI) reciprocating internal combustion engines (RICE), non-emergency, non-black start. The engines are 20 cylinders each rated at 2.75 megawatts (MW) or about 3600 horsepower (hp). The engines are electric start and are capable of being remotely started from DTE headquarters. An on-site operator is not required.

Catalytic converters were installed on the engines in 2012 to meet the requirements of 40 CFR Part 63, Subpart ZZZZ for Stationary Reciprocating Internal Combustion Engines. The applicable requirements of 40 CFR Part 63, Subpart ZZZZ were incorporated with this ROP renewal which includes proper operation of the catalytic converters.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year 2014.

### **TOTAL STATIONARY SOURCE EMISSIONS**

<b>Pollutant</b>	<b>Tons per Year</b>
Carbon Monoxide (CO)	0.44
Nitrogen Oxides (NO <sub>x</sub> )	8.1
PM10*	0.14
Sulfur Dioxide (SO <sub>2</sub> )	0.004
Volatile Organic Compounds (VOC)	0.25

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

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 Non-Applicable Requirements and identified in Part E of the ROP.

The stationary source is located in Livingston County, which is currently designated by the U.S. 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 CO and NO<sub>x</sub> exceeds 100 tons per year (tpy).

The stationary source is considered to be a minor source of hazardous air pollutant (HAP) emissions because the potential to emit of any single HAP regulated by the federal Clean Air Act, Section 112, is less than 10 tpy and the potential to emit of all HAPs combined are less than 25 tpy.

The stationary source is an existing Prevention of Significant Deterioration (PSD) source due to the potential to emit of greater than 250 tpy of any regulated air pollutant. The five diesel fuel-fired engines have not been subject to review according to the PSD regulations under Part 18. Prevention of Significant Deterioration in the Michigan Air Pollution Control Rules 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 five diesel fuel-fired engines identified as EUDG11-1, EUDG11-2, EUDG11-3, EUDG11-4, and EUDG11-5 were installed after August 15, 1967, this equipment was exempt from New Source Review (NSR) permitting requirements at the time of installation. However, future modifications of this equipment may be subject to NSR.

The five diesel fuel-fired engines identified as EUDG11-1, EUDG11-2, EUDG11-3, EUDG11-4, and EUDG11-5 at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and 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) for CO from the five diesel fuel-fired engines identified as EUDG11-1, EUDG11-2, EUDG11-3, EUDG11-4, and EUDG11-5 at the stationary source are exempt from the federal Compliance Assurance Monitoring (CAM) regulation under 40 CFR Part 64 because control of CO emissions are addressed by 40 CFR 63, Subpart ZZZZ. Therefore, the five diesel fuel-fired engines are exempt from CAM requirements for CO.

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.

### **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**

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 the MDEQ, 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, Lansing District Supervisor. The final determination for ROP approval or 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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**June 9, 2016 STAFF REPORT ADDENDUM**

MI-ROP-B2795-2016

**Purpose**

A Staff Report dated May 2, 2016, was developed in order to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by R 336.1214(1). 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 R 336.1214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

**General Information**

Responsible Official:	Ryan A. Randazzo, Plant Manager Fossil Generation 734-231-1140
AQD Contact:	Julie L. Brunner, Senior Environmental Engineer 517-284-6789

**Summary of Pertinent Comments**

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

**Changes to the May 2, 2016 Draft ROP**

No changes were made to the draft ROP.

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**March 26, 2019 - STAFF REPORT FOR  
RULE 216(1)(a)(i)-(iv) ADMINISTRATIVE  
AMENDMENT**

**Purpose**

On August 2, 2016, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-B2795-2016 to DTE Electric Company - Colfax Peaker Generating Units pursuant to Rule 214 of the administrative rules promulgated under Act 451. Once issued, a company is required to submit an application for changes to the ROP as described in Rule 216. The purpose of this Staff Report is to describe the changes that were made to the ROP pursuant to Rule 216(1)(a)(i-iv).

**General Information**

Responsible Official:	Ryan A. Randazzo, Plant Manager Fossil Generation 734-231-1140
AQD Contact:	Caryn Owens, Environmental Engineer 231-878-6688
Application Number:	201900027
Date Application for Administrative Amendment was Submitted:	February 19, 2019

**Regulatory Analysis**

The AQD has determined that the change requested by the stationary source meets the qualifications for an Administrative Amendment pursuant to Rule 216(1)(a)(i).

**Description of Changes to the ROP**

Administrative Amendment Number 201900027 was to correct typographical errors in the Emission Unit Summary Table. The Modification Date column indicated the engines were modified on October 26, 2012, but that was the actual date when the engines were equipped with carbon monoxide oxidization catalysts. Installing the oxidization catalysts did not meet the definition of a Modification. Therefore, the dates were removed, and the date was added in the Emission Unit descriptions.

**Compliance Status**

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements associated with the emission unit(s) involved with the change as of the date of approval of the Administrative Amendment to the ROP.

**Action Taken by the DEQ**

The AQD approved an Administrative Amendment to ROP No. MI-ROP-B2795-2016, as requested by the stationary source. The delegated decision maker for the AQD is the District Supervisor.